BLENDED LEARNING: UNCOVER THE PERFECT LEARNING COMPONENTS FROM STUDENTS' PERSPECTIVES FOR A TOURISM AND HOTEL MANAGEMENT PROGRAM

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INTRODUCTION

The transformation of teaching and learning approach, from teacher-centered to learner-centered, may be one of the focuses in the contemporary education development. With the advent of the internet, new instructional technologies have enabled instructors to enhance the educational experience of students both inside and outside the classroom (Bailey & Morais, 2004).

Over the past decade, countless efforts have sought to integrate emerging internet technologies into the teaching and learning process in higher education. Many universities have reported an increase in the use of various online tools for their on-line or blended learning courses. Blended learning in higher education is defined as learning that is facilitated by effective combination of different modes of delivery, models of teaching and styles of learning, and with transparent communication amongst all parties involved on a course (Heinze & Procter, 2004). It provides various benefits over using any single learning delivery medium alone as a single delivery method inevitably limits the reach of a learning program or critical knowledge transfer in some form (Singh, 2003).

However, since the evolution of blended learning, some discussions in the literature relate to effective practices in the use of technologies in different disciplines, however, empirical evidence to support or refute the effectiveness of such technologies or guidance on how to use such tools effectively is lacking (Kim & Bonk, 2006, Singh, 2003).

For a large class of two hundred students in a tourism and hotel management program, course design using traditional lecture to impart knowledge on a face-to-face setting is necessary. In order to enhance their learning experience and help them to master the subject matter, how to re-engineer a course from its traditional delivery method to a creative learning mode becomes a great challenge for faculty and teachers. The question arises here is what can be blended? Virtual world, being a new generation technology tool, has gained increasing acceptance as one of the instructional tools for blended learning in higher education since a few years ago. Can it be integrated with other interactive teaching activities so as to stimulate their interest in learning? Thus, this research study aims to:

1) explore new use of a combination of blended learning methods through integrating web-based technology,
2) identify the underlying dimensions in a blended learning course that will appeal to tourism and hotel management students, and
3) examine the relative impact and assess the influence of the underlying blended learning dimensions on

students' perception and satisfaction.

To explore this new combination of teaching methods using blended learning approach, on-line pre-class exercises in Virtual World would be featured in the course in addition to mass lectures and three other delivery methods in form of face-to-face instructor-led training:

Pre-class exercises in Virtual World

Most often, students are not motivated to read textbooks or assigned readings before attending a lecture. To reduce disengagement and promote higher-order learning, Bloom's Taxonomy suggests teachers to move beyond lecture in search of new ways to engage students in the learning process (Forehand, 2005). Thus, "outside classroom" activity, using one of the web-based technologies, Second Life in the online virtual world, was integrated into the formative assessment. Students were required to complete three pre-class exercises within the semester. Various scenarios and case studies were being created. Students were required to read the assigned materials and to complete the exercises on-line using the Second life platform. It was in the hope that the "playfulness" element of Second life could add fun to their learning experience and make them well prepared for the lessons.

Group Projects with Hotel Integration

As a teaching hotel in the university was scheduled to be opened in April 2011, it creates a good environment to foster students to learn from real life examples. As such, Hotel Integration is designed as the principal component for the group projects in the blended learning course. Students were divided into groups and were assigned to different human resources topics such as "Recruitment and Selection", "Training and Orientation" and "Compensation and Benefits" etc. Experience sharing opportunity for students was provided through an interview with the hotel Human Resources personnel at a consultation meeting. Students in groups were required to present their ideas in an oral presentation and submit a written report at the end of the semester.

Interactive Tutorials

Tutorials often complement lectures as an excellent delivery mode to help students to explore further concepts, theories, principles, and enquiries arising from the lectures. Instructional strategies placing emphasis on application, analysis, synthesis, evaluation through activities such as games, brainstorming, small group discussion, role play and debates were designed to provide students opportunity to learn through a fun and interactive experience so as to retain knowledge and to achieve the desired learning outcome.

Guest Speakers

Human resources professionals were invited to give lectures or seminars in traditional classroom setting on specific issues related to human resources management. It provided opportunities for sharing of practical experiences and ideas with students so as to enhance learning.

LITERATURE REVIEW

The blending of face-to-face instruction with various types of non-classroom technology-mediated delivery has been practiced within the academy for more than four decades (Dziuban, Hartman & Moskal, 2004). The confluence of new pedagogies such as changing emphasis from teaching-centered to student-centered learning paradigms, new technologies used due to the advent of internet and new theories of learning namely; brain-based learning and social constructivism, are enabling entirely new models of teaching and learning for an educational transformation.

Dramatic increase in internet use in education and increase integration of technology into course offerings were recorded over the past years (Bailey & Morais, 2004). Increasing numbers of learning designers or innovative educators have experimenting learning models that combine various delivery modes (Singh, 2003). Thus, different models of blended learning have been emerged placing emphasis on distance, interaction, conveniences, reduced classroom contact hours or combination of modes of delivery etc (Rovai & Jordan, 2004, Dziuban, Hartman & Moskal, 2004, Heinze & Procter, 2004).

Driscoll (2002) put blended learning into four different concepts which may take reference for our study. They are (1) to combine or mix modes of

web-based technology (e.g. live virtual classroom, self-paced instruction, collaborative learning, streaming video, audio, and text) to accomplish an educational goal; (2) to combine various pedagogical approaches (e.g. constructivism, behaviorism, cognitivism) to produce an optimal learning outcome with or without instructional technology; (3) to combine any form of instructional technology (e.g. videotape, CD-ROM, web-based training, film) with face-to-face instructor-led training; (4) to mix or combine instructional technology with actual job tasks in order to create a harmonious effect of learning and working. Putting assessment online and deliver pre-work online were concrete examples as suggested. Dziuban, Moskal & Hartman (2005) stated that blended learning is the combination of web and face-to-face that is necessary to produce a course utilizing the best of both instructional worlds. Having said that, Osguthorpe & Graham (2003) suggested to consider the dimensions of pedagogical richness, access to knowledge, social interaction, personal agency (learner control), cost effectiveness and ease of revision when designing an effective blended environments.

Today's undergraduates are new learners who take class notes on personal digital assistants, get their information from blogs and wikis. They can complete a task, listen to the portable CD player and talk on the cell phone simultaneously. Dziuban, Moskal & Hartman (2005) described them as the Millennials representing by the Net Generation, Generation Y, Generation Why?, Nexters, and the Internet Generation. They diminished satisfaction with blended learning reflects their cooperative approach to problem solving. Their metaphor is "Knowledge is teamwork". Thus, group work tends to be appealing to this generation and social networking tools are popular among them for information sharing.

Also, they are the most diverse generation in the history. Smith & Caruso (2010) reported undergraduate students' comments "I love Information Technology (IT). IT is my life. My laptop is my life. Without IT, I would be a very unhappy person. IT allows us to do so many things, and those of us who are natural at it wouldn't be the same without it. So far my experience with IT at college has been a positive one. It's an exciting experience". The opposite comments were "I don't like all this digital stuff, I don't like all the problems that come along with computers. I don't really understand most of it, and there's always something new to learn right after you get used to one thing".

Their diverse needs may not be easily addressed. However, Second life was described as one of the next-generation technology tools and was used as an instructional tool in teaching online or blended tourism and hospitality courses (Singh & Lee, 2008). Altinay & Paraskevas (2007) said that virtual environments have gained increased acceptance as instructional tools for courses aiming at increasing student engagement in learning, as well as at inculcating the ability of higher-order thinking in students. Among the web-based technologies used by today's students for collaboration in courses, 29.4% of respondents reported the use of online virtual world (namely Second Life) whereas 37.6% of respondents used Blogs and 30.7% used Wikis (Smith & Caruso, 2010).

RESEARCH METHODOLOGY

Questionnaire Design

A detailed end of course questionnaire, comprised of six sections with criterion to evaluate students' satisfaction of using various course delivery methods, was designed for the full-time final year degree students taking the subject of Human Resources Management in the Tourism and Hotel Industry.

Prior to the main survey, a pilot test with five undergraduate students, all from the same class of Human Resources Management, was undertaken. Minor revisions were made to ensure that all statements were comprehensible to the respondents.

A final instrument was developed with 48 statements measuring the agreeable levels of various learning methods. There were five statements on Overall Perception, four statements on Mass Lectures, five statements on Guest Speakers, eleven statements on Pre-class Exercises in Virtual World, twelve statements on Interactive Tutorials and ten statements on Group Projects with Hotel Integration. In addition, four questions were designed for the demographic variables. They are gender, stream

of study, program of study and e-learning exposure. A five-point Likert scale was adopted, ranging from "1" (Strongly Disagree) to "5" (Strongly Agree), to measure students' level of satisfaction with the various learning components of the course.

Data Analysis

The Statistical Package for Social Science software (SPSS 16) was used for data analysis. Descriptive Statistics, including mean, range, frequency distribution and standard deviation, were used to analyze the raw data collected from the respondents. Principal components analysis with varimax rotation method was conducted to identify the underlying dimensions of students' overall satisfaction. Multiple regression analysis was then used to assess the influence of underlying blended learning dimensions on overall perception and satisfaction.

FINDINGS

Profile of the respondents

One hundred and forty three valid responses, at a response rate of 71.5%, were received in November 2010. Respondents were full-time undergraduates who studied in a university in Hong Kong. Female and male constituted 76.9% and 23.1% respectively. Female students outnumbered their male counterparts reflected a common gender ratio in the Hotel and Tourism Management School and in the hospitality industry in general (Pang, Penfold & Wong, 2010). In terms of stream of study, 58.7% of the respondents studied in the hotel management stream and tourism management stream accounted for 41.3%. All students were enrolled in the Bachelor of Science (BSc) program. Half of the respondents (53.1%) had previous exposure to e-learning before taking the course.

Students' perception on various blended learning indicators

A mean value was used to evaluate the preference of students' perception on blended learning indicators. A summary of the 47 indicators was presented in Table 1. "The tutorials were interactive" was rated highest with a mean score of 4.18. While the indicator "Navigation in the Second life application was user friendly" scored the lowest (mean = 2.24). It implied that students were not in favor of using Second life for the pre-class exercises in terms of its technical aspect.

Table 1. Mean ratings of blended learning indicators (N = 143)

Indicators	Mean[a]	Std. Dev.
1. This subject was able to improve and enhance my knowledge of the topics / materials covered.	3.890.46	
2. The contents were relevant to this subject.	4.100.48	
3. The contents of this subject were appropriate for my level.	3.940.53	
4. The delivery methods of this subject were creative and innovative.	3.610.81	
5. There were enough supports and advices from lecturer to help students achieving the learning outcomes.	3.780.60	
6. The mass lectures were well organized, providing an effective learning experience.	3.650.72	
7. The lectures helped to understand the contents of this subject.	3.800.62	
8. The lectures were easy to understand.	3.730.70	
9. Time allocation and arrangement for the lectures were appropriate.	3.260.83	
10. The guest lecture was relevant to the content of subject.	3.440.82	
11. The content of guest lecture was informative.	3.340.84	
12. The content of guest lecture was interesting.	3.100.81	
13. The guest lecture involved sharing of practical experiences and ideas with students.	3.570.70	
14. Time allocation and arrangement for the guest lecture were appropriate.	3.490.72	
15. The exercises helped to understand the contents of this subject.	3.070.84	
16. The exercises inspired my interest in learning this subject.	2.610.98	
17. The exercises pushed me to work harder and well prepared for the lessons.	2.691.01	
18. Adoption of Second life application in the exercises was creative.	2.991.07	
19. Adoption of Second life application in the exercises added fun to the learning experience.	2.601.10	
20. Adoption of Second life application in the exercises provided more flexibility in the completion of assignment.	2.901.10	
21. Navigation in the Second life application was user friendly.	2.24*	1.13
22. Second life application was technically reliable (e.g. network is stable...).	2.691.06	
23. The guideline on using Second life application was clear to understand.	2.761.02	
24. Workload for the Pre-class exercises was appropriate.	3.480.85	
25. Time allocation and arrangement for the exercises were appropriate.	3.420.84	
26. The tutorials helped to understand the contents of this subject.	3.950.54	
27. The tutorials helped students to understand the theory more easily.	3.930.59	
28. The tutorials were easy to understand.	4.060.49	
29. The contents of tutorials were interesting.	3.950.74	
30. The tutorials were interactive.	4.18**	0.68
31. The tutorials were meaningful activities.	3.850.75	
32. The tutorials provided more opportunities for teamwork.	3.970.60	
33. The tutorials motivated students to discuss and speak before others.	4.000.61	
34. The tutorials involved sharing of practical experiences and ideas with group mates.	3.920.62	
35. There was sufficient guidance given by the lecturers/instructors.	3.990.59	
36. Workload for the tutorials was appropriate.	4.010.61	
37. Time allocation and arrangement for the tutorials were appropriate.	3.860.61	
38. Hotel integration projects were creative.	3.300.81	
39. Group projects helped students to understand the theory more easily.	3.520.75	
40. Group projects included application of theoretical knowledge.	3.660.66	
41. Group projects enabled development of new skill and knowledge from other members in the group.	3.460.75	
42. Consultation meeting with Hotel ICON HR staff helped the completion of project.	3.300.89	
43. Feedback could be obtained from group mates more frequently.	3.420.70	
44. Feedback could be obtained from lecturer more frequently.	3.480.69	
45. There was sufficient guidance given by the lecturer.	3.500.76	
46. Workload for group project was appropriate.	3.390.81	
47. Time allocation and arrangement for group project were appropriate.	3.520.67	

[a]Remark: Five-point Likert scale was used for rating the indicators ranging from 1 = "strongly disagree" to 5 = "strongly agree".

* The lowest mean among the 47 indicators.

**The highest mean among the 47 indicators.

Reliability test and factor analysis

Cronbach alpha reliability test was conducted for the first three sections of the questionnaire; they were "Overall Perception", "Mass Lectures" and "Guest Speakers". One statement "Time allocation and arrangement for the guest lecture were appropriate" in the dimension of "Guest Speakers" was deleted after the internal reliability test.

A principal component factor analysis with Varimax rotation was then conducted to determine the underlying dimensions of other three sections in the questionnaire. They are "Pre-class Exercises in Virtual World", "Interactive Tutorials" and "Group Projects with Hotel Integration". The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and the Bartlett's test of sphericity were pursued to test the fitness of the data. The result of KMO for "Pre-class Exercises in Virtual World" was 0.844 and the Bartlett's test of sphericity was found to be 883.836, with a 0.000 significance level. While the result of "Interactive Tutorials" was 0.857 (KMO) and the Bartlett's test of sphericity was found to be 795.998, with a 0.000 significance level. Lastly, the result of KMO for "Group Projects with Hotel Integration" was 0.862 and the Bartlett's test of sphericity was 655.649, with a 0.000 significance level. These figures suggested that the use of factor analysis was appropriate. The factors derived following the suggestions of Hair et al. (2005) that eigenvalue should be higher than 1.0 and factor loading should be greater than 0.5.

Following the factor analysis, three dimensions were initially extracted from the eleven statements of "Pre-class Exercises in Virtual World". Two statements "Workload for the Pre-class exercises was appropriate" and "Time allocation and arrangement for the exercises were appropriate" were deleted after the internal reliability test. No further statement was deleted in the sections of "Interactive Tutorials" and "Group Projects with Hotel Integration".

After the reduction work, there were 44 statements constituted nine dimensions listed in descending order as shown in Table 2. The top three highest mean values were all related to tutorials implying that students had the highest satisfaction level toward this blended learning method. "Interactive tutorials" had the highest mean value of 4.02, followed by "Workload and guidance in tutorials" (3.95) and "Team-based learning for tutorials" (3.94). Whereas "Virtual approach to learning" and "Second life issue" ranked the two lowest at factor mean of 2.79 and 2.70 respectively. The result revealed that students were least satisfied with the Pre-class Exercises in Virtual World as one of the blended learning components in the course.

Table 2. Ranking of Blended Learning Method by dimensions (*N*=143)

Factor name	Factor Mean[a]	Ranking
Interactive tutorials	4.02	1
Workload and guidance in tutorials	3.95	2
Team-based learning for tutorials	3.94	3
Mass lectures	3.61	4
Workload and guidance in group projects	3.46	5
Practical and creative group projects	3.45	6
Guest speakers	3.36	7
Virtual approach to learning	2.79	8
Second life issue	2.70	9
Mean value of factor mean	3.48	

[a]Remark: Five-point Likert scale was used for rating the dimensions ranging from 1 = "strongly disagree" to 5 = "strongly agree".

Regression analysis on factors affecting blended learning

Multiple regression analysis on "Overall perception" and "Overall satisfaction" were conducted individually as dependent variables, with the nine dimensions derived as independent variables. With regard to "Overall perception" of students, six dimensions namely "Workload and guidance in tutorials", "Team-based learning for tutorials", "Workload and guidance in group projects", "Guest

speakers", "Virtual approach to learning" and "Second life issue" were not accepted in the model as the significant was less than 0.05. Three dimensions "Interactive tutorials" (beta = 0.39), "Mass lectures" (beta = 0.21) and "Practical and creative group projects" (beta = 0.11), as shown in Table 3, exerted influences on the dependent variable "Overall perception". This finding revealed that students perceived face-to-face delivery mode as an important learning components in a blended learning course and that interactivity in tutorials was the key.

Table 3. Multiple regression on blended learning issues with "overall perception" as dependent variable

Independent variables	Beta	Significance	Ranking
Interactive tutorials	0.39	0.000**	1
Mass lectures	0.21	0.000**	2
Practical and creative group projects	0.11	0.008*	3

*p < 0.05, **p < 0.001.

For "Overall satisfaction", the results were quite similar (Table 4). Same as above, six dimensions were not accepted in the model namely; "Workload and guidance in tutorials", "Team-based learning for tutorials", "Practical and creative group projects", "Guest speakers", "Virtual approach to learning" and "Second life issue". The results indicated that "Mass lectures" (beta = 0.34), "Workload and guidance in group projects" (beta = 0.32) and "Interactive tutorials" (beta = 0.28) were the significant predictors of "overall satisfaction".

Table 4. Multiple regression on blended learning issues with "overall satisfaction" as dependent variable

Independent variables	Beta	Significance	Ranking
Mass lectures	0.34	0.000**	1
Workload and guidance in group projects	0.32	0.000**	2
Interactive tutorials	0.28	0.008*	3

*p < 0.05, **p < 0.001.

IMPLICATIONS

Virtual world being adopted as a web-based technology for the blended learning approach in the course were negatively perceived by students at large. It was depicted by the mean value of the two lowest factors, "Virtual approach to learning" and "Second life issue". The reasons behind maybe due to the negative experiences students perceived on the user-friendliness of Second life. As "convenience" is said to be the most valuable benefit of using web-based technology in courses for the students of today (Smith & Caruso, 2010), course weaknesses usually refer to problems with technology. Therefore, students' perception and preparedness and preferences of using these technologies academically should also be accounted for. Conversely, the delivery method of tutorials in terms of three dimensions namely; "Interactive tutorials", "Workload and guidance in tutorials" and "Team-based learning for tutorials" were most favored by the students. This implied the approach of interactive tutorials still received the greatest acceptance among all other delivery methods used in the course. The approach of game-based activities could positively add fun to students' learning experience. Yet, maybe not through Second life platform, rather in form of a face-to-face delivery mode in this regard. As put by Dziuban, Moskal & Hartman (2005), "only the most engaging face-to-face presentation will hold the attention of the Millennial generation" could be very true.

Moreover, students' preference, particularly in a large class, may be diverse. Not only in terms of the norms found in the "Millennial", but also the match between students' desired learning style (Singh, 2003) and or, even their individual temperaments. These tourism and hotel students were prepared to work in a "people industry" after graduation in which "personal touch" through exercising social interaction skill is one of the key factors contributing to a success in the workplace. This idea is worth for contemplation by faculty and teachers who may plan to integrate certain web-based technologies in hotel and tourism management program.

In addition, the relative impact of blended learning dimensions on students' perception and satisfaction could further help to uncover the key learning components for course design in future. Interestingly, both students' perception and students' satisfaction on the blended learning course were found to be the same, i.e. interactive tutorials, mass lectures and group projects. Though the degree of importance and the elements on group projects were found to be different.

Unlike the result of students' perception, all three dimensions were of similar importance to students when evaluating their degree of satisfaction. Mass lectures enabled delivery of subject knowledge and theories but with a large lecture class, two-way interaction was not possible. As such, sufficient guidance and feedback given by the lecturer in the group projects as well as between group mates were expected, as the design of the group project was relatively new to those students. Interactive tutorials with game-based instructional strategies, such as group discussion and debate, helped to stimulate their interest in learning. It is deemed to be another effective way in clarifying doubts on the subject matter. The respondents who were all final year students, their time budget were heavily constrained. As such, they would be more concerned on the workload and more rely on face-to-face delivery mode for prompt feedback and guidance.

RECOMMENDATIONS

The research provides a number of recommendations for consideration by educators for tourism and hotel management program. These include:

Use face-to-face learning component as a key in blended learning

Face-to-face traditional classroom teaching, in form of mass lectures to impart knowledge and interactive tutorials to explain concepts and theories, are found to be the two most important delivery methods in the study both in terms of students' perception and satisfaction. One of the key issues is the interactive and interesting games that featured in the class helps to stimulate tourism and hotel management students' interest to learn. As such, it should not be overwhelmed by any technology when using a blended learning approach. As described by Dziuban, Hartman, Moskal (2004), blended learning retains the face-to-face element, making it "the best of both worlds".

Feature student-centered e-learning technology to support lecture, tutorial and group project

If virtual approach to learning, using Second life, did not push students to work harder or inspire their interest to learn, other popular web-based technology for coursework collaboration maybe worth considered (Smith & Caruso, 2010). It includes using of social networking websites for guided and group discussion (Facebook, MySpace, Bebo etc) and using Wikis, Blogs or Micro-blogs (Twitter etc) for collaborative writing or reflective journal. The key components that may contribute a success are student-centered and pedagogical driven.

Implement blended learning course to freshmen

Time is usually a constraint for senior students who have to prepare for final year project and working in the industry for job placement. Learning a new technology which extra time will be consumed to master the program may negatively affect their intention to use the new blended learning method. Previous research on getting a sense of how students felt about their technical skills when they started college, half of the respondents indicated that they were adequately prepared to use IT as needed in the course (Smith & Caruso, 2010). It is suggested to introduce to blended learning course to first year or second year students who maybe more available and receptive to new approach of learning.

Create a supportive environment for more frequent feedback and guidance

Students of today are more acquainted with social networking websites as they are "students who are multi-task, demand response immediacy and communicate by text messaging" (Dziuban, Moskal and Hartman, 2005). University students have been communicating with classmates about course-related topics using social networking websites and they have been adopting at a high rate (Smith & Caruso, 2010). Higher education has an opportunity to leverage on students' familiarity and competency of using these technologies wisely so as to foster their learning experience. Creating a

supportive environment is essential, as well as ensuring challenging and meaningful interactions between students, and between the tutor and the students.

Prepare students for a change

Although students typically have confidence in IT skills for social and recreational purposes, however, Katz (2006) reported that they have not yet become adept at using IT for academic purposes. In the e-learning world, students need to relearn how to learn (Dziuban, Hartman, Moskal, 2004). Before implementing any blended learning method that is different from traditional classroom teaching, prepare students for a mindset change and engage them in the context and the technological environment is vital. As not all students are comfortable with using technology, it is useful to create some fun activities or simple assignments so as to help them to get used to the learning environment before the course starts.

CONCLUSION

The study revealed that the surveyed students were, in general, satisfied with the blended learning approach. The questions of whether to use a blended learning approach for a large class in tourism and hotel management program for students of today and if so, how to bring the best out of the "two worlds", requires educators to reassess students' expectations and in consideration of the course nature, students' perception, preparedness and preferences for technology. Educators need to truly understand which tools students are already embracing in their personal lives and how they actually use them so as to identify ways to adopt these tools pedagogically for academic purposes. Students must also reevaluate their roles as blended courses require them to incur more responsibility for managing their learning. Dziuban, Hartman, Moskal (2004) said "students must relearn how to learn and faculty have to relearn how to teach" still remains very true.

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