A Study on the Students' Perception of Adopting Blended Learning at Sub-degree Level

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Abstract. Blended learning has been advocated and is considered as the most promising pedagogical approach. Many research papers reported the experiences of adopting blended learning for higher education in universities. However, there is lack of published work about cases of blended learning at sub-degree level. This paper intends to fill this gap by conducting a pilot study, from the sub-degree students' perspective, about their readiness of adopting blending learning approach. The results from this study indicate the positive attitude towards blended learning from the sub-degree students.

Keywords: Blended learning, sub-degree education

1 Introduction

During the past decade, with the advancement in Internet technologies, innovative ideas have been evolved for teaching and learning activities. That creates a broader teaching and learning environment. As a result, blended learning has been advocated and is considered as the most promising pedagogical approach that combines the use of electronic learning tools with traditional face-to-face classroom instruction components to maximize teaching effectiveness [8, 9].

Many professional educators believe that blended learning not only offers more choices but it is also more effective. Most of the current research work is aimed at higher education in universities [4, 13, 6, 10]. There is lack of published research work on reporting the adoption of blended learning for sub-degree education. This paper intends to fill this gap by conducting a pilot study, from the students' perspective, on the readiness of adopting blending learning approach at sub-degree level.

The study was conducted in the context of a community college in Hong Kong, which is offering sub-degree programmes in various disciplines. The main purpose of this study is to find out how the sub-degree students perceive blended learning approach. This paper is organized as follows. Some related work is presented in Section 2. It follows with the background and context of the study in Section 3. The survey findings are discussed in Section 4. Finally, Section 5 concludes this paper.

2   Related Work

Many literatures report the experiences of adopting the blended learning approach for higher education. Dziuban et al. [4] took a survey study at a US university and found that blended courses had the potential to improve learning outcomes while lowering attrition rates in comparison with equivalent fully online courses. They further claimed that blended model was comparable to, or in some cases better than, pure face-to-face teaching. Rovai and Jordan [13] compared three graduate courses (traditional, blended, and fully online) and found that students in the blended course achieved highest in a sense of community, similar to those students in the face-to-face section, but higher than those in fully online section. Franklin & van Harmelen [6] presented the cases of four reputable universities in the United Kingdom about their rationales and approaches of applying Web 2.0 tools for teaching and learning. Their study indicated that Web 2.0 would have profound implications for learners and teachers in formal, informal, work-based and lifelong education. In Hong Kong, Lee and Chan [10] did surveys on groups of part-time students and the results indicated that the students preferred a blended learning mode that retained some form of face-to-face teaching and utilized e-learning at the same time.

All these published work concentrated on higher education with the settings of university environment. Our study focuses on the context of adopting blended approach for teaching and learning at sub-degree level. Although the study is limited to the setting of a community college in Hong Kong, the findings reveal the view that sub-degree students are technically capable to adopt the blended mode of learning and they are willing to take this challenge.

3   Background

The section gives a brief review on the concept of blended learning and defines the context of study of this paper.

3.1   What is Blended Learning

"Blended Learning" or "Hybrid Learning" are common terms used to describe courses that combine traditional face-to-face classroom instructions with online learning activities. The blended approach allows student to have much flexibility in learning, while maintaining the face-to-face classroom contact with the instructor and peer classmates. According to Dziuban et al. [4], blended learning is a fundamental redesign of the instructional model with the following characteristics:

- A shift from lecture-centered to student-centered instruction in which students become active and interactive learners.
- Increases in interaction between student-instructor, student-student, student-content, and student-outside resources; and
- Integrated assessment mechanisms for students and instructor.

These characteristics coincide with the view of Rovai & Jordan [13] that blended concept of learning is flexible approach to course design that supports the blending of different times and places for learning, offering some of the conveniences of fully online courses without the complete loss of face-to-face contact.

Osguthorpe and Graham [12] identified six reasons why people might chose to apply a blended learning system. They include pedagogical richness, access to knowledge, social interaction, personal agency, cost effectiveness, and ease of revision. These could be the reasons why blended courses have experienced significant growth in many higher education institutions for improving the efficiency and effectiveness of the traditional classroom learning approach.

Regarding the technology for supporting blended learning, besides the use of web-based course management systems [14], some Web 2.0 applications, such as web blogs, wikis, media-sharing tools, and social networking systems also help to advocate the development of blended learning [1, 6]. These tools can help to facilitate fast and inexpensive collaboration and information sharing which are very useful for teaching and learning purposes.

3.2   The Context of Study

According to the "Report of the Phase Two Review of the Post Secondary Education Sector" by Education Bureau [5], education institutions in Hong Kong offered 45,738 post-secondary education places to secondary school leavers in the academic year 2006-2007, that comprised of 17,617 at Bachelor's degree level and 28,121 at sub-degree level (see Table 1). With such a big proportion (61.5%) of sub-degree students to the overall post-secondary places, the opportunity of improving teaching and learning activities by adopting blended approach at sub-degree level is worth to be studied.

Table 1. Post-secondary student intakes in Hong Kong in the academic year 2006-2007

	Publicly-funded	**Self-financing**	**Total**	**%**
Bachelor's degree	15584	2033	17617	38.5%
Sub-degree	8448	19673	28121	61.5%
Total	24032	21706	45738	100.0%

The context of our study is based on a community college in Hong Kong, Caritas Francis Hsu College. In promoting the culture of life-long learning, the College is currently offering several sub-degree programmes (including Higher Diploma and Associate Degree) in various disciplines, covering accountancy, business administration, computing studies, languages studies, and social work.

Figure 1 depicts the context of the College in form of a rich picture [3]. When developing a new sub-degree programme, the College will take into consideration the needs of the society and industry, and the standards and expectations from the academic accreditation agency. Regarding the adoption of blended learning approach, the main concerns within the College are summarized as follow:

- *Students*: They are the ultimate beneficiary of the success of blended learning approach. Concerns related them are about the readiness of adopting the new technology, accessibility to the online tools, and the ways that they will be assessed.
- *Instructors*: They are the key personnel in designing and delivering the blended courses. Successful blended teaching requires a significant course transformation. Their main concerns are about the instructional design, technical support, improvement in learning outcomes, and the intellectual property issues when using the online resources.
- *Administration*: They define the college-wide policy in adopting blended learning approach and providing additional resources for this purpose. Chan and Law [2] stressed that education institutions would need to provide extra resources for instructor training and briefing sessions to students for implementing a structured blended learning environment. The key concerns of the administration are about the operating costs, quality of the blended courses, and the student enrollment.
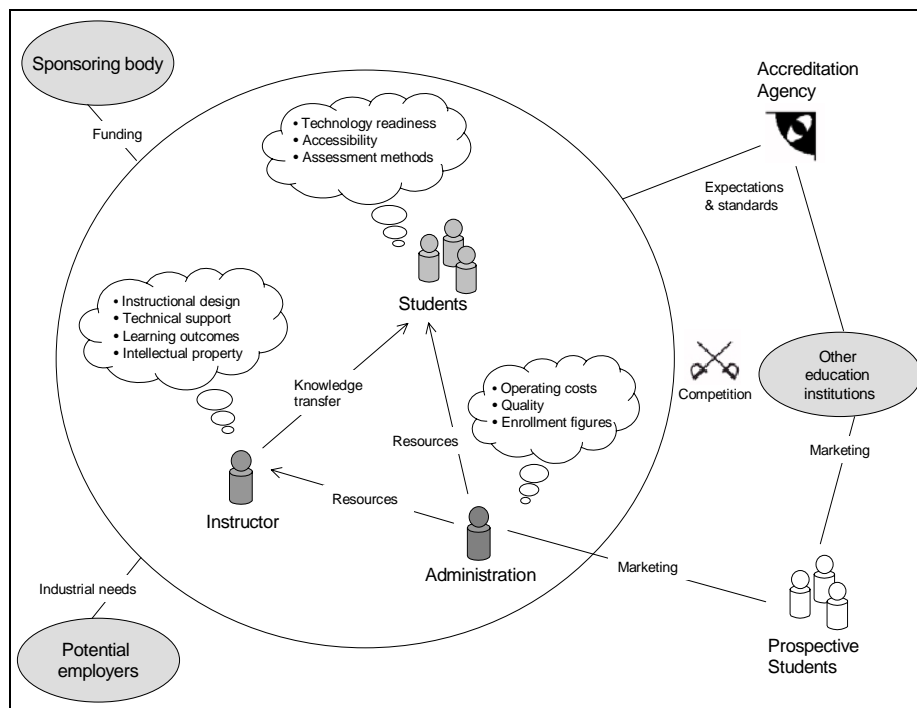

Fig. 1. Stakeholders of a community college

Among the different groups of stakeholders mentioned above, the major ones are the students who are considered to be ultimate beneficiaries of the successful implementation of blended learning approach. Generally speaking, sub-degree students may not be mature enough to manage their learning fully online by

themselves. Therefore, online-learning components with face-to-face classroom sessions could be a good combination for them. The online-learning components would arouse their interest in exploring the knowledge by themselves whereas in the classroom sessions, instructor can guide the students on the major parts of the course material and do the checking on their learning progress. Instructor can also provide necessary help to those students who are lagging behind the others. In this regard, we conducted a survey on the readiness of the students in adopting blended learning in the College.

4   The Survey and Findings

The main focus of this study is about the sub-degree students' perception of adopting blended learning approach. Three aspects of this issue have been considered:

- *Technical knowledge*: Do the sub-degree students have sufficient technical knowledge in adopting blended learning?
- *Current practice*: What are their current practices in using online tools for studying purpose?
- *Willingnes*s: Are they willing to take opportunities for learning and development with blended learning approach?

The data for this study were based on a group of sub-degree students at Caritas Francis Hsu College, participating in an information literacy module. Every new student to the College needs to attend the information literacy module in order to equip them the basic IT skills for studying in the College. At the present stage, the information literacy course is offered with a web-enhanced approach [7] that combines traditional classroom components with a web-based courseware tool.

A survey was administered to students anonymously during the final meeting of the information literacy module. A questionnaire was developed and pilot-tested by several experienced educators. The questionnaire included general questions on the students' personal characteristics and their personal views and experiences of blended learning approach. The results of the survey are shown in Appendix.

A total of 110 students, including part-time and full-time students, participated in the survey study. 96 valid responses were received (response rate = 87%). Several demographic characteristics of the respondents are listed in Table 2.

Among the responses, most of them (86%) were favorable to the use of blended learning in their study. To understand the factors that influenced the students' perception of blended learning, the following three aspects were investigated.

Table 2. Survey participants

Demographic characteristics of survey participants (N= 96)		
Gender	Male:	58%
	Female:	42%
Age group	below 18:	10%
	18 ~ 20:	56%
	21 ~ 25:	23%
	over 25:	11%

4.1   Technical Knowledge

Technical requirement has been considered as a major factor significantly and directly influence the students' intention to adopt blended learning. Mungania [11] claimed that techno-logical factor was one of the major barriers in applying e-learning. If the learners do not have sufficient technical knowledge, they will have less intention to adopt blended learning.

In our study, when the students were asked "Can you manage online tools for blended learning?" 84% of the respondents expressed a positive view. The findings support that sub-degree students have sufficient technical background for adopting blending learning. In particular, 61% of the respondents have the usual practice in reading blogs. 55% even have their own personal blogs. 56% of them have the experience of using wikis or similar web systems.

4.2   Current Practice for Studying Purpose

In the study, when asked "On average, how often do you use blogs, wikis, social networks, and other online tools for studying purpose per week?", 56% of the respondents indicated that they spent (on average) more than 20 times per week. Furthermore, when the students were asked "Do you use social networking systems to keep contact with your friends, classmates, or teachers?" 76% replied "yes".

The results indicate that, many students are used to utilize online tools for studying purpose and keeping the contact with their friends, fellow classmates, and even their teachers.

4.3   Willingness to Adopt Blended Learning

Students' motivation is one of the key factors affecting their performance and learning, particularly in blended learning mode of study. If students perceive some benefit to their learning, they will likely be more motivated to perform well. In our study, when asked whether "Blended learning will help stimulate the interest of learning", 83% of

the respondents indicated a positive view and considered that blended learning to be an effective way to help their learning. The blended approach in the information literacy module of the sub-degree students is just an initial trial. 81% of the students answered favorably that they would like to have blended learning for all subjects. As revealed from these results, most respondents have a positive view of adopting blended learning.

5   Conclusion

The adoption of blended learning must be justified with the students' perception addressed. If that happens, students will develop much interest in learning and possess much greater motivation in their learning activities. A lot of research work has been done at university level on studying the experiences of applying blended learning. We attempted to conduct a pilot study on the students' perception of adopting blended learning approach at sub-degree level. Although the initial work is confined to a community college under study, the findings reveal the view that sub-degree students are technically capable to adopt the blended mode of learning and they are willing to take this challenge.

Acknowledgement

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Appendix: Survey Findings

No. of questionnaires returned = 96

Students' perception:

- You are interested in using blended learning approach in your study.
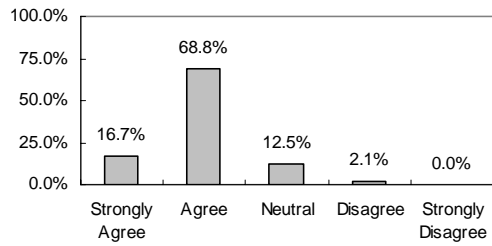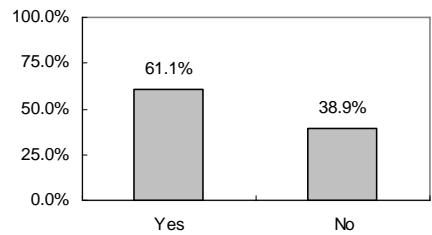

- The IT facilities provided in the college are sufficient to support blended learning activities.
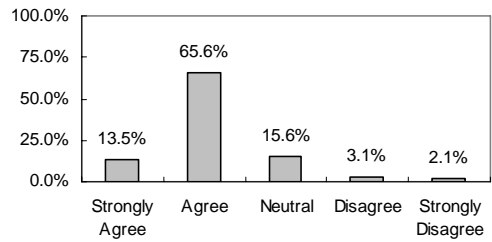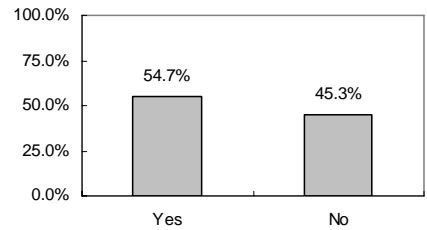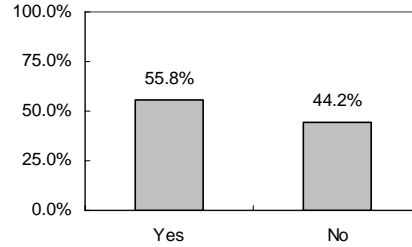

Technical knowledge:
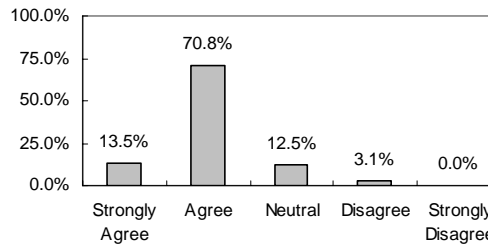
- Do you usually read blogs?

- Do you have a personal blog?

- Have you ever used wikis?

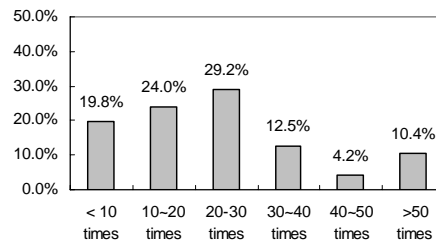- You can manage online tools for blended learning.

Current practice for studying purpose:

- Do you use social networks (e.g Facebook, MySpace) to keep contact with your friends, classmates, or teachers?
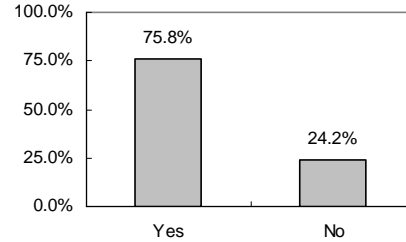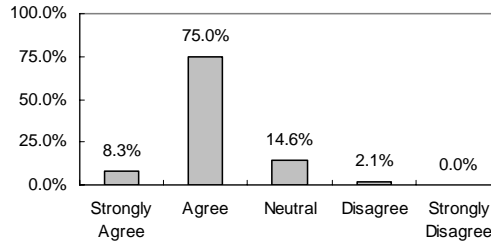

- On average, how many times do you use blogs, wikis, social networks, and other Internet tools for studying purposes per week?
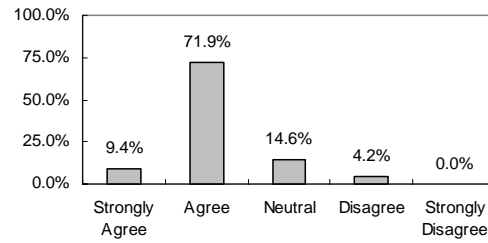
Willingness to adopt blended learning:

- Blended learning will help stimulate your interest of learning.

- You would like to use blended learning in all subjects.

Other comments:

- "blended-learning will be fun"
- "blended learning can help shorten the learning time"