THE EFFECT OF PODCAST ON THE ACHIEVEMENT OF THE STUDENTS – A CASE STUDY IN MALAYSIA

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ABSTRACT

Podcast is a tool for blended learning which media files are made available online as a reference material for students. As podcast received many positive responses from many foreign educators, a local study was conducted to probe the responses of the local students to podcast. The study was done by a survey on students' perspective over the usage of podcast, as well as a measurement on the effectiveness of podcast through the achievement of the students. The students were divided into two major groups- blended learning with podcast and blended learning without podcast. From the study, majority of the students gave positive feedback over the usage of the blended learning approaches, as well as podcast. In addition to that, through statistical analysis, the overall achievement of the students with podcast was significantly better than the students without podcast. As conclusion, podcast can be a good tool to convey more effective teaching and learning process in Malaysia. However, a study with wider coverage and more subjects should be conducted to get a better picture about the usage of podcast in Malaysia.

KEYWORDS

Blended learning, Podcast, Student achievement, Student response, Malaysia

INTRODUCTION

Apple introduced iPod as one of the first mobile multimedia device in 2001. Since then, iPod has become one of the most widely used portable devices of its kind. Instead of the regular uses as a player that can be used to download multimedia files, iPod allows the rose of a new term – "podcast", an abbreviation of "iPod" with "broadcast" (Silva Cruz & Amorim Carvalho, 2007).

Podcasting is one of the web-based tools that allows the authors, or called podcaster to publish their "speech-written" scripts online, which can be directed to certain subscribers or, open for all the audience around the world. For the distribution, an internet distribution system called Real Simple Syndicates (RSS) eases the effort for the podcasters to send the new published podcast automatically to all the subscribers (Chan & Lee, 2005). Podcasts consist of files in different media formats which can be uploaded and distributed through the internet, and can be downloaded and played in different devices, such as laptops, iPods, mp3 players, and most of the hand phones (Boulos *et al.*, 2006; Jham *et al.*, 2007). Contributed by the combination of astonishing growth in internet coverage and the increasing number of portable media playing devices, the number of podcast in United State along is estimated to reach an amazing number of 56.8 million in 2010 (Communications Executive Council, 2006; Udell, 2005).

Podcast gives the educators the tools to publish their lectures. As stated by Villano (2008), "Steve Jobs got it right. When the Apple CEO introduced the company's iPod in October 2001, it was the first portable media player of its kind, and he predicted the technology would change the educational landscape forever". Since then, many educational institutions have adopted and adapted the new technology as part of the pedagogical tool (Xie *et al.*, 2007). As described by Williams (2007), podcast bridged the traditional way of lecture to today's digital native students. EDUCAUSE Learning Initiative (2005) described podcast as another way for educators to meet today's students where they "live"- on the internet and on audio players. The potential of podcast is consolidated by the survey by Evan (2008) showing that almost three quarter of his students owned some form of digital media players.

Different from many other online tools, podcast can be published according to the breakdown of a chapter, or a section of textbook, or just simply focus on certain highlights of a topic. To secure the students' attention, the length of each of the section of the podcast should not be longer than 15 minutes (Williams, 2007; Villano, 2008). The breakdown of a long text into sections may help the students to focus on the part that they needed most by replaying the podcast. "The essence of podcasting is the creation of audio and/or video content for an audience that wants to listen to what they want, when they want, and how they want" (Jham *et al.*, 2007). So, podcast augmented the teaching and learning by allowing the highly mobile students to listen to lecture while they are moving around.

Silva Cruz & Amorim Carvalho (2007) reported that their students looked positively towards the learning through podcast, with 77.7% of their students preferring listening to podcast rather than reading book for their history class. Berger (2007) noted that his engineering students responded well to podcast too, especially the group of weaker students. Gribbon (2007) integrated podcast into Management Information Systems course with 70.2% of the respondents agreed that "Overall, integrating of podcasting can be useful in college curriculum". The capitalization of podcast has brought benefits to the teaching and learning process is well agreed by many educators as well (Chan & Lee, 2005; Johnes, 2005; Shim *et al.*, 2006).

Podcast is perceived as an assisting technology in delivering lecture and knowledge. However, there are several challenges to make an effective podcast in teaching and learning process. Maag (2006) noted the issue of the technical part of the university, where technical support from the respective university instructional technology is crucial. The quality of the sound audio, as well as the attractiveness of the podcast are fully rely on the instructor (Villano, 2008). So, the dedication of the instructor on this technology is a crucial key to the effectiveness of podcast in teaching and learning. Williams (2007) stated some of the common flaws in podcasts such as, the speaker speaks too quickly, too low and high volume, background noise is too high, and the audio or video is garbled. Other challenge such as the sufficient bandwidth provided to the users to download the podcast, potential issues with the file format, not designed for two-way interaction, and training is necessary to create a good quality podcast (EDUCAUSE Learning Initiative, 2005).

PODCAST AS AN ALTERNATIVE IN BLENDED LEARNING

Teaching with internet tools is an inevitable mode of teaching in order to win the tug-of-war between students attention in the study and the distractions. With the blending of the traditional face-to-face and the online mode of study, students are expected to gain benefit from the flexibility of the study, with less constraint of time and space. As described by Rossett *et al.* (2003), options for blended learning go beyond the classroom. They can be formal and informal, with a blend of the usage of online technology and traditional people based teaching, independent and friendly to students, and directive and discovery oriented. A successful blended learning might consists of face-to-face meeting, online assessments, synchronous and asynchronous chats and discussions, as well as communication through email (Martyn, 2001). Blended learning has the advantage of reducing the face-to-face meeting between the instructors with the students, thus saving more resources and time for both parties (Dziuban & Moskal, 2001).

Podcasting is a form of blended learning, where videos or audios clips can be uploaded to the websites where students can download them for further reference. The students can then customise their time and location to access the information recorded (Evans, 2008). One of the advantages of the podcast is the information is delivered directly from the source to the electronic devices. Students are not required to search for the information (Campbell, 2005). Although the usage of podcast in blended learning has gained much reputation, the opinion from the students from Malaysia are yet to be studied extensively. This research was focused on the students' perspective about blended learning and podcast in Inti International University, Malaysia. The outcome of the podcast was studied by comparing the result of the group of students with and without podcast.

THE DESIGN OF THE STUDY

The students from different faculties were categorized into two main disciplines: IT discipline (where the usage of internet is a must to accomplish the study) and non-IT discipline. The IT discipline consisted of Faculty of Communication and Information Technology, Faculty of Engineering, and Faculty of Applied Sciences, while the non-IT discipline consisted of Faculty of Liberal Arts, Faculty of Business and Administration, Faculty of Pre-University Studies, and the English Language Centre.

All the lecturers participated were requested to apply blended learning in their lecture. The degree of blending was classified under three categories, namely "less than 25% online", "between 25% and 50% online", and "more than 50% online". The lecturers had the jurisdiction to choose their online modes of studies, namely online forum discussion, online self-assessment, social websites, podcast, etc.

The lecturers should fall into one of these four groups: IT discipline with podcast, IT discipline without podcast, non-IT discipline with podcast, and non-IT discipline without podcast. At the end of the semester, the students' opinions were collected by the respective lecturers through questionnaires. The effectiveness of the podcast was measured through the achievement of the students' final exam, where the data was collected from the respective lecturers. All the data collected then were analysed statistically.

STUDENTS' PERSPECTIVE ON BLENDED LEARNING

A total number of 111 (for both IT and non-IT group) students had sent their feedback in this study. In general, majority of the students showed a positive attitude over the blended learning, with and without podcast. The complete responses are stated in Table 1.

Table 1. Students' responses over the blended learning for both modes, with and without podcast.

No.	Item	Agree	Neutral	Disagree
1.	Easy to find my way in online content	67.7%	25.2%	7.2%
2.	Online components effectively integrated	71.2%	24.3%	4.5%
3.	Online references to websites are useful	59.5%	28.8%	11.7%
4.	Enjoy online learning	55.9%	25.2%	18.0%
5.	Online components are valuable supplement	66.7%	26.1%	7.2%
6.	Active in online discussion	63.1%	27.0%	9.9%

The dominancy in positive response for the survey on blended learning was well expected. The students today are so been called "digital native" by William (2007) are well adapted to the digital environment. Without being constrained by the space and time, students can reach to the learning material through their desktops, laptops, or tablets, or even through their smart phones, and enjoy their study in the place where they find fit to them. Thus, a blend of face-to-face and online mode of study is more attractive to them (Colis & Moonen, 2001; Rovai & Jordan, 2004).

PODCAST: STUDENTS' PERSPECTIVE AND THE IMPACT ON PERFORMANCE

Out of 111 students, 79 of them or 71.1% of the total students have taken their course with podcast. The students in the groups with podcast were required to proceed with the questionnaires regarding their experience with podcast. The results for the survey are shown in Table 2.

Table 2. Students' responses over the usage of podcast.

No.	Item	Agree	Neutral	Disagree
1.	Podcast helps me understand the topics	76.6%	12.6%	3.6%
2.	Podcast helps me to focus	70.3%	15.3%	7.2%
3.	Podcast enhances my ability to undertake assessment	54.1%	28.8%	9.0%
4.	Podcast stimulates my thinking	59.5%	28.8%	4.5%
5.	Podcast content allows effective interactions	53.2%	31.5%	8.1%
6.	Podcast content is of poor quality	18.9%	26.1%	47.7%
7.	Quality of sound and video are satisfactory	47.7%	36.9%	8.1%
8.	Classroom environment does not support podcast	26.1%	36.9%	29.7%

In this study, video and audio files were uploaded to Inti Online, an internal sharing platform for the students and lecturers of Inti International University. More than 70% of the students agreed that podcast was helpful in their learning process, which can be reflected by first two questions. The responses showed that podcast was effective for the course. As the podcast media files can be highly mobile to be play at any places at any time, podcast might had helped the students to understand and focus on the main subjects of the respective course, by continue replaying the downloaded media files. Podcast can be effective in providing necessary information to fill up the gaps of lecture, especially when the particular students cannot make their way to the class, or cannot focus on that particular lecture hour. As indicated by Evans (2008), podcast succeeded to draw students' attention by its mobility and accessibility, with majority of the students agreeing that podcast indeed is a more effective way of study compared to the textbook, and receptive wise, better than face-to-face lecture and textbook. This study showed the results in line with the study conducted by Compley (2007), where the majority of the students threw a positive vote to podcast, and indicated that podcast materials were useful to their revision or preparation for assessments.

Majority of the students responded positively over the effectiveness of podcast in stimulating their thinking and enhancing the effectiveness of interactions. This was quite unexpected outcome. The results might be stimulated by listening or watching a same media file over and over again which inspired the students to think over some of the topics covered. On the other hand, the content of the podcast might have become the topic of their discussion with their lecturers or peers.

The design of the podcast showed that most of the lecturers involved had done their job well in choosing the high quality podcast, with the majority of the students being satisfied the overall quality of the audio and video which had been presented to them. However, not many students had agreed that using podcast in the classroom is a good idea. Although all the classrooms in INTI International University are equipped with wireless broadband that connects to the internet, the speed of the connection is always an issue, especially when too many users login and access the internet at the same time using the same proxy. This problem was reflected through question 9, where about one third of the respondents agreed that classroom environment does not support podcast. As the podcast was designed for the usage after the lecture and off-classroom, most of the students might not access to the podcast in the classroom, and this could have contributed to the high percentage of the neutral response of 36.9% for question 9.

The effectiveness of podcast was measured as the achievement of the students. Blended learning with Podcast contributes significantly ($F=24.001$, $p<0.05$) to the assessment score with the scores of 63.49 for "with podcast", and 51.37 for "without podcast". From the statistical analysis, there was an overall significant difference between groups using podcast with blended learning and group without podcast ($t=4.626$, $p<0.05$) and between IT and non-IT group, with $t=3.865$, $p<0.05$ and $t=2.415$, $p<0.05$ respectively. The results showed that podcast had played the role to increase the students' performance in their examination. These result were agreeable with the students' feedback that podcast had helped them to understand and focus on their study, as well as helped them in their assessments.

CONCLUSION

Blended learning is an educational tool that facilitates the teaching and learning process. Whilst getting good responses from many educators, the response from local Malaysian students are encouraging, which showed the evidence that the Malaysian students shared the same characteristic with the rest of the parts as reported. Podcast is an enhancement to the blended learning as evidenced, by the positive responses from the students as well. The effectiveness of the implementation was proven as it raised the students' achievement. However, this study was limited to one university in Malaysia, which was Inti International University. To get a better picture of the implementation of podcast in Malaysia, a study with a wider coverage and more subjects should be conducted.

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