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Students' experiences in using spectrum: textbook or classroom?

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Abstract

Since the 2000s, many universities have introduced virtual learning environments in their educational system to deliver “blended learning” (BL). The University of Malaya, in Malaysia, launched its BL system, named SPECTRUM in 2010. Five years after its implementation, this research aims to gain a more detailed and deep understanding of the lived experiences of postgraduate students in the faculty of education who have been using SPECTRUM for their learning practice. The research purpose required focusing attention on the qualitative aspects of the experience itself. So phenomenology is chosen as an appropriate methodology to answer the research question. We have used focus group and individual semi-structured interview for collecting data. Results show that students found SPECTRUM as a useful platform in their studies. Lecturers’ styles of using SPECTRUM in the classroom contributed to students’ experience. They perceive SPECTRUM as an online classroom for interaction and textbook when materials are uploaded weekly.

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Keyword: students’s experience; blended learning; textbook; classroom

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1. Introduction

Blended learning (BL) has become an inevitable tool in education on any campus all over the world. Since the 2000s, many universities have introduced virtual learning in their educational system to deliver “blended learning” (BL) (Osgerby, 2012). Since most postgraduate students are also working, they cannot come to campuses all the time for face-to-face meetings and discussions. Therefore, BL is introduced to help students acquire knowledge and exchange ideas through technology anywhere and at any time. A BL system is supported by technology and a combination of teaching techniques including self-study, classroom and on-the-job instruction; fitting with the individual learners’ needs (Gray, 2006). That is why University of Malaya has adopted this technology through its system ‘SPECTRUM’ where students are able to interact according to their various learning styles. This research aims to gain a detailed and deep understanding of the lived experience of postgraduate students in the faculty of education who have been using SPECTRUM for their learning practice.

The term ‘blended learning’ is recently used by US researchers in their studies on online based teaching and learning (Wakefield, Carlisle, Hall & Attree, 2008; Tselios, Daskalakis & Papadopoulou 2011) However, there are other alternative terms such as “hybrid”, “technology-mediated instruction”, “web-enhanced instruction”, and “mixed-mode instruction” that are used in current research literature (Martyn, 2003). According to Staker and Horn (2012), BL is a formal education program where student learn partially through content and instruction online with some element control over time, place, path and/or pace. From Gray’s (2006) training perspective, “BL using an effective learning model with suitable supporting technology coupled to an appropriate mix of teaching techniques such as self-study, classroom and on-the-job instruction, tailored to the needs of each individual learner.” Nevertheless, Oliver and Trigwell (2005) argued that BL is concerned with the process of blending media, teaching processes and presentation, rather than students’ learning. Sharpe, Benfield, Roberts and Francis (2006), on the other hand, concluded that the term is ill defined, yet remained a useful as it could mean different things to different people.

In this fast developing world, technology has taken center stage in education. Many past researchers have taken an interest in BL and the classrooms. Delivery modes may vary from face-to-face, blended, and fully online. Bleffert-Schmidt (2011) and Risner, (2011) found that no statistically significant difference was found between three different delivery modes which are face-to-face, blended, and fully online. However, general satisfaction and appreciation of the blended modality was observed. Online classroom pedagogy was more student-centered (Ruck, 2012).

McDonald (2012) indicated three different patterns of blended learning in higher education: supplementary learning, interdependent learning and adaptable learning. Supplementary learning is the experience pattern of adult learners when they assign meaning to BL based on perception of face-to-face and online component (McDonald, 2012). Meanwhile interdependent learning is the complimentary relationship between online and face-to-face components of the course to generate greater understanding of the course content, peer and the instructor and adaptable learning is the adaptability of the learning structure and process which learners feel would beneficial between traditional learning or online learning (McDonald, 2012).

In addition, the differences in the course contexts, experience of process and learner orientation influence the meaning of blended learning. Eventually, adequate technical support is important for implementing blended learning Moukali (2012), as well as teacher technical training (Peruso, 2012). In terms of interaction, this indicated that teacher feedback on discussion board lowers student satisfaction as well as grades (Giacumo, 2012). BL also has an influence on teaching practices and behavior. According to McDonald (2012) and Ruck (2012) students are more responsible for their own learning and teachers provide better-personalized assistance, keep better track of student progress, and cover more
material in BL. Edginton and Holbrook (2010) research reported on students' initial concerns were on their ability to communicate with the instructor about the online components, but shifted to their own time management skills at the end of the course. However, Shroff and Vogel (2010) observed that students were eager to engage in textual dialogue in the online discussions and participated more compared to the face-to-face discussions.

Blended learning demonstrates positive attitudes, on the students’ side, toward the value of intercultural awareness (Risner, 2011). On the faculty development level, adopting blended learning environment leads to improving the educators (Badawood & Steenkamp, 2012). According to Vaughan (2007), the lecturers suggested that blended courses create enhanced opportunities for teacher-student interaction, increased student engagement in learning, added flexibility in the teaching and learning environment, and opportunities for continuous improvement.

2. Research questions

Many past research about blended learning focuses on students’ perception and satisfactions with the purpose of evaluating blended learning implementation in the classroom. Little research has been done to understand students’ experience of using blended learning in their studies. This research will look at an in depth account and lived experiences of postgraduate students who used SPECTRUM to learn. The research question of this research is as follow:

- What do UM postgraduate students’ experiences in learning through SPECTRUM?
- What contexts or situation influenced UM post graduate students’ to use SPECTRUM?

The focus of this study will be on postgraduate students from the faculty of Education in University Malaya.

3. Research methodology

The purpose of this research requires a focus on the qualitative aspects of the experience. Therefore a phenomenological method is chosen to answer the research question. This method allows data to be analysed and reported in a descriptive and interpretative manner.

Data collection is done through interview with postgraduate students in a focus group and also some one-on-one sessions. Students were chosen by purposive sampling method based on availability and convenience.

Interviews were conducted in semi-formal way that allow students to freely express their experiences in using SPECTRUM. The study was designed to investigate students’ experience in using SPECTRUM in their studies as well as their feelings towards the online system. Consequently, researcher plays an important role in the study as an active interpreter.

Postgraduate students from the faculty of education were first contacted to find a suitable time for an interview. Nine students were available for interview. Two interviews were conducted in a group while the rest was one-to-one. Then data was collected through a semi-structured interview. Initial question were asked followed by additional question derived from students answers. Students’ responses were then transcribed into text for further analysis. Initial readings of the data were done to find similar concepts or ideas. A second reading was carried to connect the concept or ideas of similar traits.
4. Research findings

The interviews talks could be classified into following themes; Function of SPECTRUM, Lecturers’ style of using SPECTRUM and SPECTRUM as a textbook or classroom.

4.1. Functions of spectrum

SPECTRUM is a BL tool that serves several functions to users. Out of the many functions SPECTRUM has, students express that it is useful for them to get notes and submit assignments. They perceive SPECTRUM as a place to share information. One of them says:

“…sometimes when the lecturer is giving notes in the class, PowerPoint, we don’t have enough time to write or we miss the class we still can download from the SPECTRUM.”

From the above excerpt we can infer that student uses SPECTRUM to download notes prepared by lecturers. There were other instances in the interview where students feel that lecturers who uploaded the PowerPoint notes or other material in SPECTRUM helps in the learning process.

“We just read. We don’t have to find other articles... They are provided in the SPECTRUM. It’s easier for us. Because some of our friends are working and they don’t have time to search for other articles.”

Furthermore, students find the function of uploading files onto SPECTRUM helps them save time and energy. In terms of submitting assignments, student express that it is convenient to upload it online than to hand it in personally.

“We don’t have to come here, make an appointment with her just to submit the hard copy.”

The data also shows that the word ‘time’ being used over and again. Whether it is time in the classroom or time outside the classroom, students are aware that SPECTRUM is useful for them to counter the lack of time. Furthermore students log on to SPECTRUM on a weekly basis usually two to three times a day. Their time on SPECTRUM are used for different purposes.

“Between... but it is certainly more than three times. Usually I will log in, let’s say I log in on a weekend, skip a day and I’ll log in again... For example, if tomorrow there’s a class, then this morning I will log in.”

However, it is apparent that this habitual log in is dependent on lecturer’s activity in the SPECTRUM as well. When asked about when they will use SPECTRUM on their own, a few students say that they will unless the lecturer doesn’t use SPECTRUM at all.

“I would share something through SPECTRUM because my friends had done so and I use the information. So of course we have to contribute something too. Unless if the lecturer never use SPECTRUM for their class. It’s because everybody won’t look at SPECTRUM. Lecturer themselves only log in a few months before.”

Student uses SPECTRUM for different purposes such as to share information, get notes or submit assignment. Both full-time and part-time students are aware that by using SPECTRUM to get information from lecturer and friends, it helps them reduce time to look for materials to read and help them focus on their studies. Students recognize the usefulness of SPECTRUM only because the lecturers are active in using the web-application in their class. This brings us to the next theme identified in the data, Lecturer’s style.

4.2. Lecturer’s style of using spectrum

Different lecturers have a different but somewhat the same way of using SPECTRUM in the classroom. Based on the interview, we have identified three distinctive ways lecturer uses SPECTRUM which are; Lecturers who uses SPECTRUM fully, Lecturers who only upload notes onto SPECTRUM and Lecturers who doesn’t use SPECTRUM at all. Below is an excerpt from one of the interview on the matter:
“There’s a lot of way lecturer using it [SPECTRUM]. Some had post material early. So we can read first at home… meaning to say when we enter class we’re ready. There are lecturers who teach first. Then they will post [notes] on SPECTRUM. But for me, who is staying in Tapah, I think it’s easier if lecturer post it early before rather than later. Plus, if I’m not in class, at least I would get the notes as well. I won’t be left behind. However, there are lecturers who doesn’t use SPECTRUM too. Those who doesn’t use SPECTRUM, we have to fully depend to the class sessions.”

Lecturers who use spectrum fully would use some feature in SPECTRUM like the forums for discussions, announcement board, upload notes and the function of submitting papers online. We see a recurrent theme of lecturer’s style of using SPECTRUM and students experience. It seems that it is more beneficial to students when lecturers uses SPECTRUM. One student claims that SPECTRUM is beneficial for student who doesn’t have time.

“But for people who working, part-time, and then they have other commitments, ok this SPECTRUM, like, some sort like last minute study, it’s very helpful, and make the person feel like not so stressful. And can depend on the spectrum and so on.”

On the other hand, students believe that even if the lecturer do not use spectrum to upload notes, they should use it to get in touch with students. Without the use of SPECTRUM, it is difficult to get information.

“If he didn’t want to put notes, at least he could put announcements or important reminders.”

However, it is apparent that the student’s purpose of using SPECTRUM is tied to how the lecturers implement it in their classroom. This brings us to the fact that lecturers will introduce SPECTRUM to students. They will brief students on the basic ways of using the application. This gives a chance for students to get familiarized with SPECTRUM. However, the usefulness of this web application takes time to get used to. Therefore, many of the interviewed students had the same thoughts of using SPECTRUM for the first time; it is a new ‘thing’ that they have to learn on their own. As for Lecturers who do not use SPECTRUM in their classes, students claimed to experience difficulty and have a negative perception towards it.

“...I’m not familiar with SPECTRUM. It’s because when I was in the first semester, I never use SPECTRUM. All my lecturers use e-mail, more towards e-mail or we have our own yahoo group to upload notes. So we don’t use SPECTRUM at all. But I’m only just getting acquainted with SPECTRUM this semester.”

Without encouragement from the lecturers they would not use SPECTRUM and thus have difficult to get the full benefit of blended learning using SPECTRUM. Furthermore, student will need to learn how SPECTRUM works on their own or with the help of friends. However, students who are introduced to SPECTRUM by lecturers have an advantage of getting acquainted with SPECTRUM faster. Lecturers’ style of using SPECTRUM is important to implement blended learning in the courses. If the lecturer’s do not use the application, students will not get any beneficial experience from it.

4.3. Spectrum as a classroom or textbook

SPECTRUM is seen as a textbook for some students while others feel as though it is an online classroom. For some classes, lecturers will post notes in a weekly basis. Students feel that with this they are able to keep track of their learning.

“So far for me, it’s easy to use SPECTRUM because it is [organized] week by week, it’s like a text book. I’ll know that this week we’ll be learning about what topic because it follows a week by week view.”

This type of view is also beneficial to Postgraduate student because most of them prefer to read or go through notes before classes to get a general idea of the lesson. As certain lecturers uses SPECTRUM to upload notes for students before classes; so, students are able to take learning into their own hand. An excerpt from the interview below expresses how students use SPECTRUM as a textbook:
“...in case she [the lecturer] is going to ask us anything and we are still blur, we can still refer to the notes she has given before.”

“Especially when the lecturer asks us to read the article ... then we really need to study and go through the article. Because sometimes the article is really hard to understand...”

On the other hand, there are lecturers who use SPECTRUM to get students to interact with each other. Here students perceive that SPECTRUM is like an online classroom. The environment set up in the class will determine the environment in SPECTRUM as well. Student says that if the lecturer exudes a negative aura, then they will feel the same way in SPECTRUM.

“...it’s like going to an online class....”

“You have to be formal. You cannot post something however you like. We have to think twice before we post. Is our grammar right? Just in case the lecturer will read it. Because it’s just like being in class.”

There is a wall between the student and educator that impedes students from expressing themselves freely. They believe that they should always be professional and formal in the class. Therefore, when blended learning is introduced, they see it as an online class where everything is formal which leaves little room for ad-lib or development of character. Students see SPECTRUM as a textbook for them to keep track of their studies but when interaction takes place in the forum, they see it as an online classroom to discuss further about the topic of the week.

5. Discussion

Analysis of the interview transcription shows various interesting points from students experience with SPECTRUM. All students agree that SPECTRUM was a useful platform in their studies. This is similar to past research on students’ perception on BL (look at Edginton & Holbrook, 2010; Tselios, Daskalakis, & Papadopoulou 2011; Uğur, Akkoyunlu & Kurbanolu, 2011; Smyth, Houghton, Cooney & Casey, 2012). Students are more aware of the usefulness of BL after using the system (Edginton and Holbrook, 2010). In terms of using BL in the classroom, results of this study show that students need time to familiarize with how spectrum works. Students will get use to SPECTRUM if lecturers use it in their classrooms. However students who meet with lecturers who never use spectrum at all in the first semester will need more time to adjust. According to Wakefield, Carlisle, Hall and Attree (2008) students did not engage with the e-learning resources probably due to lack of awareness regarding the e-learning component and inconsistent access to computing facilities. Postgraduate students in our study had no trouble with connectivity. However, even with lack of knowledge in the use of SPECTRUM, students will inevitably learn to use the online application. Student priorities persist that teacher presence is a vital component for student’s success and satisfaction (Peruso, 2012).

Students experience SPECTRUM as an online classroom when interaction is required in the forums but it is more used as a textbook when educators only upload the learning materials. This allows students to have greater time flexibility and improve their learning outcomes (Vaughan, 2007). However, Smyth et. al. (2012) mention in their students that the online component was more invasive on students everyday life as they had less time for break from studying. In our study, students were given a choice to read the notes before or after the lectures. This increases their learning time and was not in any way forced. In a research done by Akkoyunlu and Meryem Yiılmaz Soylu (2008) on thirty-four students at Hacettepe University learning styles and views, results shows no significant differences between their achievement level and learning styles. Even though the information gathered here are deem useful to gather initial ideas of what the students experience and in what context, there are some limitations to the current study that could be addressed in future research. This study did a purposive sampling method and therefore could not have covered the vast range of students in the faculty. Further study could also be done to find teachers experience in using spectrum seeing as teachers play a larger role in enhancing students
experience in using spectrum. Another criteria that could be taken into account are the type of student the faculty have, such as local students or foreign students.

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