Perceptions of blended learning in higher education among academics and learners in SEGI College Penang, Malaysia – a case study

Krishnamoorthy Kumarasamy, Kalaivani Kalimuthu, Mahalecumy Narayanansamy
SEGI College Penang, Malaysia

Abstract

This paper explores students' and academics' perceptions of a blended learning approach to a whole course and identifies what they regard as the perceived benefits, challenges and limitations of this approach to teaching and learning. To examine their perceptions, this paper has used a mixed-methodology questionnaire for the students and a structured interview survey for the academics. Data from both were analysed at the end of the course after all the content had been delivered and the assessment strategies and blended learning processes had been deployed. Results indicated that the students' perceptions of blended learning were largely positive, though some concerns were expressed as to the format of the approach. Likewise, the academics who applied blended learning to their teaching had a similarly favourable view of it. The academics also shared their insights into the benefits, challenges and limitations of blended learning.

Keywords: blended learning approach, perceptions, perceived benefits, limitations and challenges

1.0 Introduction

The process of teaching and learning has changed over the years. One approach now widely used in teaching and learning is blended learning, considered an innovative means of combining technology and available resources to enhance knowledge. Though Malaysia is still at the infancy stage of the implementation of technology-based teaching and learning, its higher education institutions (HEIs) are transforming themselves, in order to be fully electronic in the near future (Lim, Fadzil and Mansor, 2011; Maznah, 2004). Blended learning, as a technology-based methodology, is increasing in popularity in Malaysian HEIs.

Blended learning environments combine face-to-face and online learning activities that are meant to complement each other (Boelens *et al*., 2015). Blended learning is a combination of instructional modalities (i.e. on-site, self-paced learning and web-based learning), delivery media (i.e. internet, lectures, PowerPoint presentations, textbooks); instructional methods (face-to-face or technology-based sessions) and web-based technologies (e.g. wikis, chat rooms, blogs, textbooks, online courses). The precise combination of elements selected depends on such criteria as learning goals, course content, teacher experience, teaching style and learner characteristics (Dziuban, Hartman and Moskal, 2005), but blended learning is essentially an integration of both face-to-face and online delivery methods (Chew, Turner and Jones, 2010).

Marsh (2012) stated that blending teaching approaches should be adaptable to students' needs if they are to provide a good learning environment. Similarly, Lightbown and Spada (2013) emphasised that teachers should use a variety of teaching materials, such as videos, blogs, online forums and other digital tools to expand the range of learners' learning strategies. This study therefore investigated both students' and academics' perspectives of blended learning, the better to understand its value and impact.

2.0 Literature review

2.1 Students' perspectives

A review of relevant literature reveals curiosity about the perceptions of blended learning of both students and instructors. Osgerby (2012) maintains that the blending of media, the teaching processes and presentations should not be the only focus of any examination of the effectiveness of blended learning, but that appropriate attention should also be paid to the varied experiences of learners and to what was happening to them during the learning process, both in and out of the classroom.

Several studies on student satisfaction with blended learning courses confirm a number of benefits. For instance, Edginton (2010), in his study of the teaching of basic pharmacokinetics with blended learning and face-to-face approaches, found that students in blended-learning courses appreciated flexible scheduling, self-paced online materials and face-to-face interactions with instructors. Another study by Rodriguez (2010), on students' views of a hybrid ecology course, found that blended learning helped students to develop responsibility for their own learning.

Likewise, Won and Yong (2016) examined the main variables affecting learners' satisfaction in a blended-learning environment by distributing a detailed questionnaire among respondents (who were, on average, twenty years old) to find the impact of six themes – learner, instructor, course, technology, design and environment – on students' satisfaction. This study focused specifically on the e-learning components within the blended learning environment. Results from univariate regression analysis indicated that all six themes are positively associated with e-learner satisfaction, with design singled out by this young sample as the main element related to their satisfaction with blended learning.

As an early exploration, Ramnanan and Pound (2017) conducted a review into medical student perceptions of the benefits and limitations of the flipped-class approach to teaching and learning. On the whole, these students showed a strong appreciation for it – especially for the pre-class preparation activities. In a comparison with lecture-based instruction, they appeared to prefer the flipped classroom's more concise delivery, the readily accessed online tools and the interactions, as well as the engagement with small-group classroom activities.

Similarly, Akyol and Garrison (2011), on the basis of their study into understanding cognitive presence in an online and blended community, showed that students following both online and blended courses were more likely than those in traditional teaching contexts to reach high levels of cognitive presence and achieve high-quality learning outcomes. Gomez, Jeong and

Rodriguez (2016), who aimed with their study to evaluate both a) the effects of the flipped classroom on student performance and b) student perceptions of this new methodology, found a very significant contrast between all aspects of the assessments of students on a flipped-classroom course and of those taught with more conventional approaches. Overall, the flipped-class students performed higher on average, their performance apparently enhanced by their having the ability to pause or rewind – for recapitulation of lectures at any given time or place. Indirectly, it helped to increase individualised learning and teacher availability.

Gyamfi and Gyasee (2015) similarly reported in their study of student perceptions of the blended learning environment that the problem of slow internet connectivity and lack of internet access for some students outside campus hindered the effectiveness of blended learning, despite the fact that the main findings showed positive perceptions of students of this same approach.

2.2 Academics' perspectives

Blended learning may be integrated into teaching and learning, but it should – and this is most important – be adaptable to students' needs. Furthermore, the teaching content should be eye-catching and appealing because, as a flexible style of teaching, it can increase student motivation. The results of a quantitative research study, conducted by Buitrago (2013), into the needs of novice online tutors indicated that Novice tutors needed training on tutoring competencies and skills, as well as on the specifics of online language learning platforms. According to Nizkodubov and Evseeva (2015), blended learning reduces instructors' workloads and they will consequently have the flexibility and time to prepare online class materials. The results of these studies suggest that, for a classroom to be successfully interactive, educator feedback is a significant component.

A qualitative study of teachers' perceptions was conducted by Satar and Akcan (2014). The participants, having been provided with pedagogical and technical training in the application of tools, had to share their experiences of deploying blended learning. The results indicated that the teachers viewed this strategy positively. Similarly, when Ozel and Arikan (2015) researched teachers' perceptions of integrating the internet into teaching, their findings revealed that English as a foreign language (EFL) instructors were enthusiastic about using the internet and web 2.0 tools in language classes, though they agreed that they were not using such Web 2.0 tools as blogs, podcasts, wikis and social networking sites in their teaching.

As these examples illustrate, there have been numerous researches into the implementation of blended learning that indicate its benefits and few empirical studies show that blended learning has no impact on students' performance. Nevertheless, Alshwiah (2009) found that, at the Arabian Gulf University, it made no significant difference to students' attitudes toward the English language and Chang *et al*. (2014), investigated the effects of blended e-learning on electrical machinery performance, concluded that there were no significant differences in student outcomes.

Therefore, blended learning seems to be effective only when conventional teaching methods and e-learning are integrated, though, in Malaysia, the integration of blended online courses into

the learning processes of private colleges has not yet been explored. This present study therefore aims to focus both on students' perception of blended learning and on academics' insights into creating well-designed class materials and establishing an interactive classroom.

The aims of this study are:

- **to determine students' and academics' perceptions of a blended learning approach to teaching and learning at SEGI College Penang;**
- **to determine the perceived benefits, challenges and limitations of the implementation of blended learning tools in teaching and learning.**

In summary, on the basis of the existing literature on students' and academics' perceptions of blended learning, more students and academics in HEIs favour a blended-learning approach, but some aspects need amendment if this approach to teaching and learning is to be effective.

3.0 Research methodology

This research focused on two distinct groups of respondents: learners and academics. Learners were grouped into various types of demographics, such as gender, field of study and academic status. By applying quantitative and qualitative methodologies, data analysis was carried out to explore further the perceptions of learners towards blended learning. To be more specific, quantitative survey questions were distributed to a sample of 147 learners from various fields of study and of varying academic status.

The research topic samples were selected and limited within SEGi College Penang, with participation strictly voluntary and anonymous. The survey questions consisted of three simple demographics questions, such as gender, field of study and academic status, mainly to determine whether demographics played a significant role in learners' perceptions of the implementation of blended learning at the college. Six questions were designed to gauge learners' overall perceptions of blended learning from different perspectives. The survey questions were tagged, along with some open-ended questions and learners' feedback, as part of qualitative data collection. The research findings also derive from continuous observations of learners' actions and reactions in relation to blended-learning content and activities.

Meanwhile, academics were also given a set of structured interview questions. A total of fifteen academics participated and responded. In order to obtain more information about academics' perceptions of blended learning, the qualitative and quantitative survey, observations and interviews were carried out from March to April, 2019, during the active semester timeline when both academics and learners participated in blended learning as part of classroom delivery.

4.0 Data collection and analysis

The demographic profile of 144 respondents is shown below:

Table 1. Gender demographic

Gender	No of respondents
Male	65
Female	79

According to table 1, the respondents for quantitative survey questions were in almost equal numbers of males and females: 45% male and 55% female. Inclusion of this demographic in the quantitative survey was to determine possible gender variation in perceptions of blended learning.

Table 2. Learners' academic status

Learner status	No of respondents
Full-time (local)	74
Full-time (international)	12
Working adult (local)	58

According to table 2, 51% of participants in the quantitative survey were full-time students and 40% were working adults; 9% of participating students were international. Various participant perspectives of the benefits of blended learning – local, international, full-time and working-adult – will be highlighted in the learners' perceptions section below.

Table 3. Field of study

Field of study	No of respondents
Business Management	45
Computing	31
Engineering	30
Accounting / Finance	20
Hospitality / Tourism	18

According to table 3, the distribution of respondents based on field of study was: 31% - Business Management, 22% - Computing, 21% - Engineering, with the remaining respondents from Accounting or Finance and Hospitality or Tourism.

Learners' perceptions

Figures 1 to 5 focus on the overall learner perceptions of blended learning, on the basis of a quantitative survey and open-ended questions given to learners.

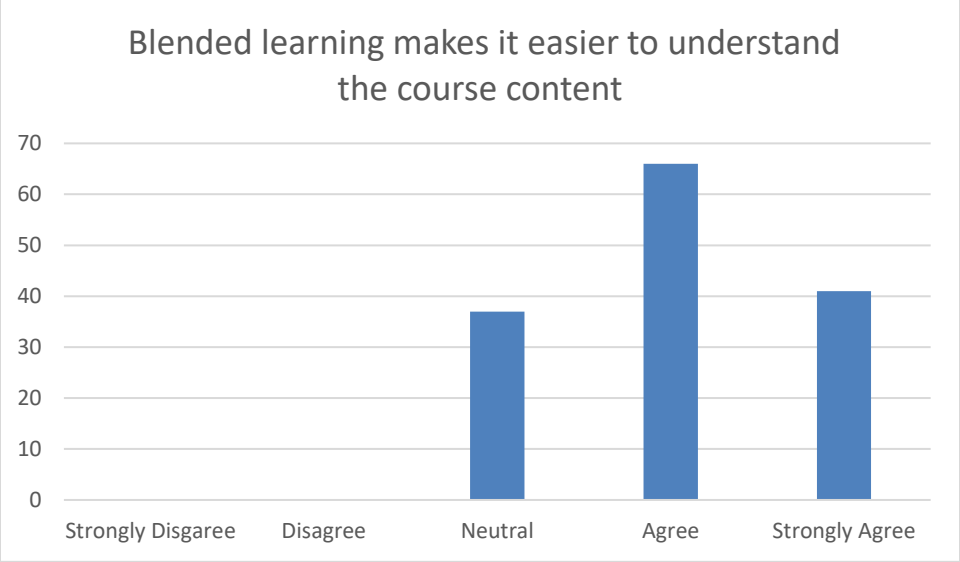

Figure 1.

Figure 1 clearly indicates that a majority of the learners are positive about this perspective. 74% of learners agree or strongly agree that blended learning makes it easier for them to understand the course content. Such online content may be in the form of video, audio, web links or animation, where the content is very visual and much more simplified. Additionally, blended learning also enables students with different learning styles (slow, fast, shy and quiet learners) to adapt and pick up lessons at their own pace. The blended learning content can be repeated, participated in and re-visited as many times as necessary, thus precluding any possible disappointment among learners (Gomez, Jeong and Rodriguez, 2016). Generally, female students are more receptive and participate more actively in blended learning; they seem to be more motivated and more focused on their studies and blended learning actually helps them to explore more knowledge within and outside the classroom.

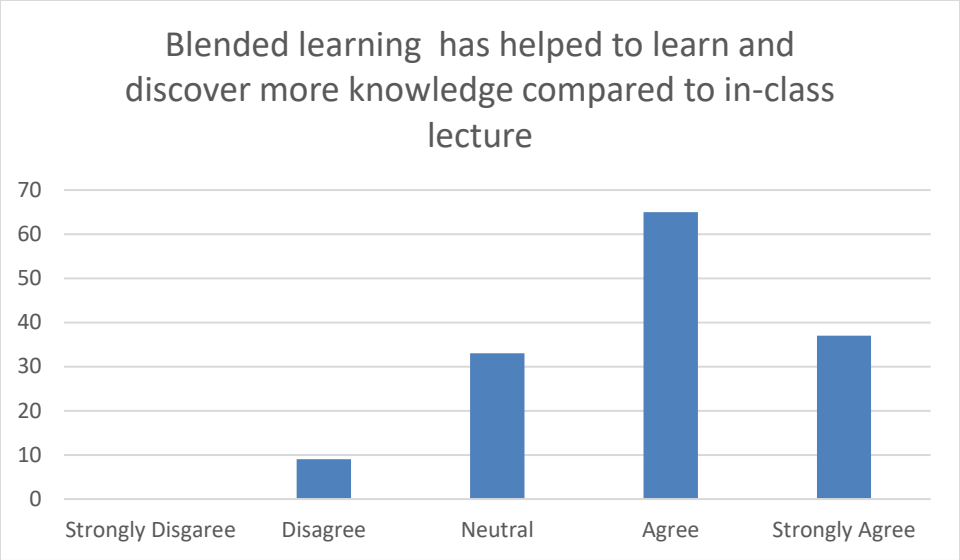

Figure 2.

Discovering knowledge from all resources provided online is a good aspect of life-long learning. 71% of learners agreed that blended learning helped them to discover more knowledge than did an in-class lecture. It was noticeable that blended learning helped learners to develop analytical and information-gathering skills, a finding supported by the results of a study by Akyol and Garrison (2011), evidencing, from a blended approach, a strong fundamental knowledge of subject matter, with the potential for further enhancement to applications or practical skills. Learners in the present survey also commented that what they learned in a traditional classroom setting was very limited and difficult to retain and added that this limitation could be solved by a process of discovery and further research, when they tended to know more and retain the concepts or applications for longer. However, 23% of learners were neutral and about 6% disagreed with this particular perspective. These percentages may reflect the degree of learners' readiness for and motivations towards blended learning. 29% of learners may have considered that blended learning was also in conflict with their learning style.

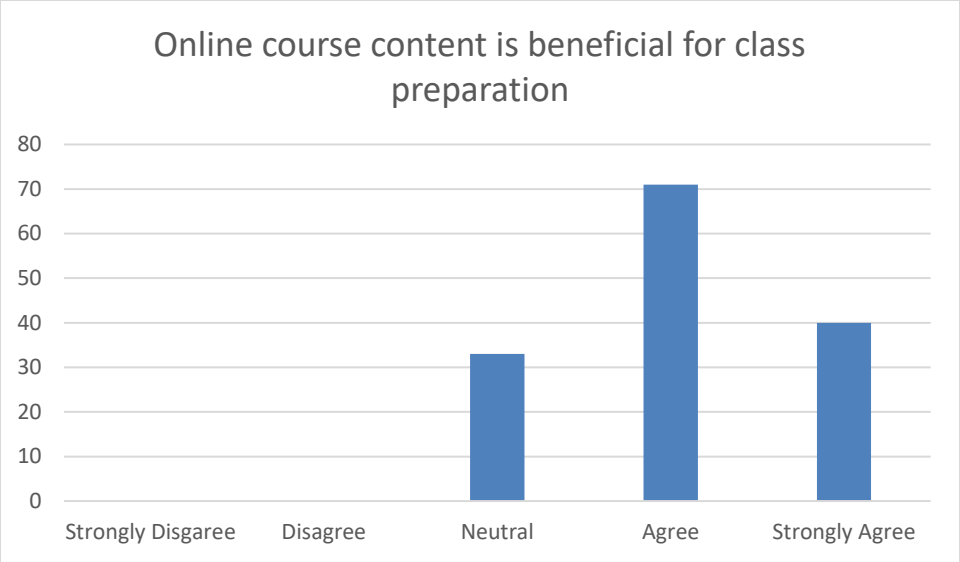

Figure 3.

77% of learners agreed that online content was beneficial to class preparation. At SEGi College Penang, both management and academic staff emphasise that lecture notes and other teaching materials should be uploaded before the start of class, to make sure that learners are prepared in advance. Online content uploaded before class enables students to prepare diligently so that they may participate – with the requisite fundamental knowledge already acquired (Ramnanan and Pound, 2017) – in tutorials, discussion and group activities.

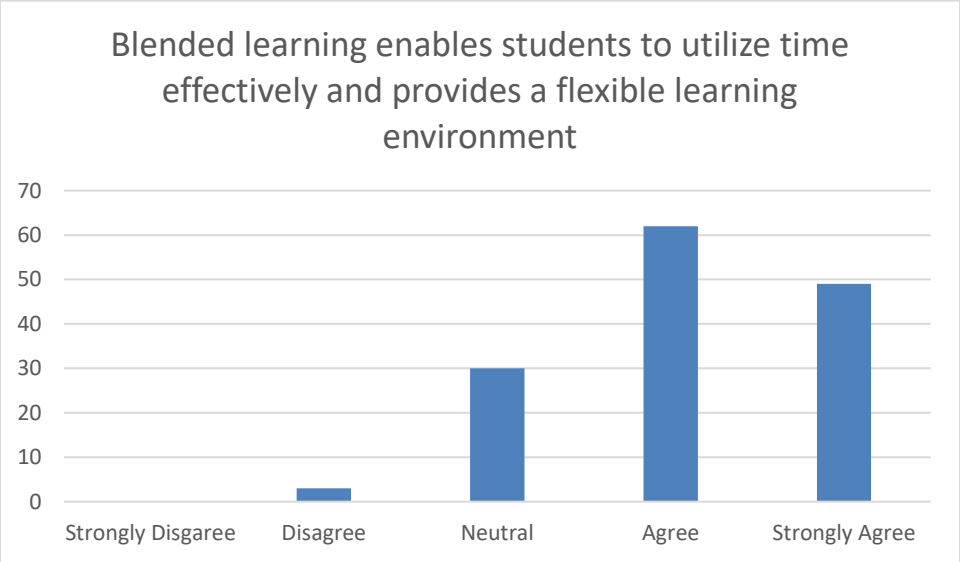

Figure 4.

A majority of learners also seemed to believe that blended learning makes for better use of time and provides a flexible learning environment, for 77% agreed with this perspective. Full-time learners have perceptions that blended learning provides them with an opportunity to discover more knowledge and content at any time, anywhere. Like Bielawaski and Metcalf (2003), as

cited in Tosun (2015), they consider blended learning useful, for they are able to understand challenging concepts in detail, thanks to multimedia content and links. Learners – especially working adults and international students – experience learning freedom through blended learning. Learners have been observed to have flexible scheduling on their learning too (Edginton, 2010). Figure 4 indicates that independent learning allows students to be more adaptable than is possible when they learn in traditional settings. The concept of learning 'anytime, anywhere' is commonly held to be a feature of blended learning. Edginton (*op.cit*.) argues that blended learning implementation, with strong communication between instructors and learners, as well as between learners and learners, enhances the learning process, for guidance and sharing opportunities are available not only within the classroom, but outside it, too.

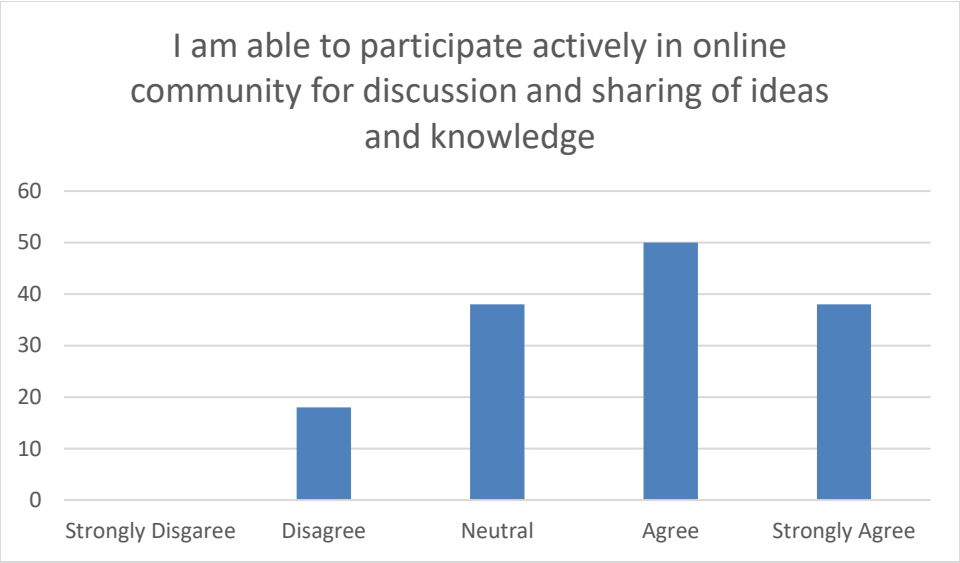

Figure 5.

Figure 5 reveals learners' perceptions of interaction within the blended learning environment. 61% of learners agreed that they were able to participate actively in an online community, such as a forum or online discussions. These groups of learners experienced a strong social presence within the blended learning environment (Osgerby, 2012). Based on the feedback, they felt able to meet new people, learn new things and, at the same time, have fun. Class observation corroborated this, especially among full-time and international students, for they were excited and wanted to participate in online forums and discussions. Perhaps, however, instructors also need to encourage more reticent learners to participate and share via online activities, since about 39% of learners were either neutral or disagreed that they could take part easily. Perhaps this reflects the degree of learner readiness, the perceived complexity of tools and grading criteria and the nature of the program itself.

Academics' perceptions

Academics' perceptions were gauged by means of a qualitative survey and structured interviews with a small group of lecturers. The qualitative survey covered such topics as the implementation of blended learning and personal experiences, as well as learner adaptability, development of learner life-long skills, recommendations and perceived limitations. The findings about academics' perceptions of blended learning implementation at SEGi College Penang were:

- **Blended learning implementation**. Based on a survey conducted among fifteen academic staff at SEGi College Penang, academics agreed to and supported the implementation of blended learning, which started in 2015.

  "*Blended Learning implementation has to be further reviewed and researched on its suitability on technical and non-technical subjects*."
  "*Technical subject might not be appropriate with blended learning as learners' prefer face-to-face learning whereby learning and feedback can be obtained immediately*"

  Some academics revealed their doubts about how blended learning could be implemented within subjects like mathematics, programming and accounting. Academics were also concerned about whether learners were aware of, ready for or motivated to participate in blended learning methods (Isiguzel, 2014).

- **Blended learning experience**. Generally, academics seemed to have had good experiences with learners in blended learning environments. Engagement in blended learning enabled the lecturers to track and monitor learners' progression during any activities and they were able to evaluate directly student performances online (Lightbown and Spada, 2013). They offered both positive and negative perspectives:

  "*Learners are able to access to online materials and they could come prepared to class with expected the lesson outcomes.*"
  "*I faced negative experience in which they encounter very lack response from students on online activities. Learners are not taking initiatives and lack of motivation to learn independently especially students at Diploma level and below*."
  "*Technology support and complicated tools are also one of the factors in which blended learning approaches are challenging.*"

- **Learners' adaptability**. Most academics revealed a mixed response about learners' adaptability to blended learning.

  "In order to learners' to fully adapt and be benefitted from blended learning is matter of time and technology availability."
  "I find learners who highly tech savvy tends to adapt fast compare to those who are not. Some learners also feel that they are no ready for blended learning based on their experiences in secondary school."
  "*Blended learning supports students to be intellectually responsive with providing authentic real-life experience and skills for survival and progress in future*"

- **Development of life-long skills**. In their opinions and comments, academics acknowledged that blended learning was a good approach for current teaching and learning initiatives. However, the benefits did, they said, depend on several factors, such as learners' learning style, time investment and motivation.

  "*Blended learning, it developed analytical and information gathering skills. It also enables students to take charge of their learning and provide learners opportunity learn through exploratory research.*"

- **Recommendations for the implementation of blended learning**. Academics expressed serious concerns about internet connection and tools used to support blended learning (Ozel and Arikan, 2015)

  "*Blended learning is where learning can take place online and it need to have a good internet connection and acceptable and easy to use tools."*
  "*Training and workshop on blended learning tools and technology are required on consistent basis as it could expose lecturers to latest tools and lecturers would be able to use new technology and methods for blended learning."*
  "Implementation of survey questions (entry and exit) on blended learning for each course to review and make continuous improvement from time to time."
  "Lecturers should be given sufficient time and space for lecturers to develop online contents. This is to make sure quality of content are maintained and learners find it engaging. One of challenges in blended learning could be due to lack of creativity in content developed."

- **Limitations of blended learning**. Various limitations were perceived and shared, such as the nature of subjects, learners' readiness, motivation and awareness, content development, available time and adequate technology with good connections.

  "*Learners' readiness and motivation can be one of the biggest limitations on blended learning implementation.*
  "Factors like learners' discipline, time management skills, and comfort with technology, preferred learning style and investment of time can play a crucial role on the success and failure of blended learning."
  "Unstable internet connection and lack of technology and tools exposure can be also be a barrier for blended learning."

5.0 Discussion

The analysis and the consequent findings suggest that both learners' and academics' perceptions of blended learning have been largely positive since the project was launched in 2015 at SEGi College Penang. Learners appear to understand online content and appreciate flexible scheduling of learning activities, discovering knowledge for themselves and having an online social presence (Kosar, 2016). There are limitations and challenges to the successful implementation of blended learning, viz. the reduction of face-to-face time, the degree of learners' readiness and motivation, the methodology's appropriateness to individual learning styles, the nature of subjects, the quality of academics' skills and the extent of their capabilities and training and, finally, the technology available for use.

Though both academics and learners acknowledged that blended learning is important and has the potential to be the 'next big thing' in education, they expressed some concerns about how well it can be deployed at and systematically managed by any institution (Singh, 2003). Raising student awareness and making expectations clear and visible are of the utmost value to those enrolling for the first time on a blended learning course, as Guzer and Caner (2013) also suggest.

Providing consistent support to the students throughout the semester is equally important, for example by conducting workshops and holding a series of training sessions for students on the use of blended learning tools, time management, motivation for self-directed learning and a hybrid learning style. In addition, as Osgerby (2010) mentions, academics are also encouraged to hold consultation slots for learners to seek additional help with online activities. Academics have an important role to play if blended learning is to be properly implemented by any HEI: they should be enthusiastic, eager to learn new approaches; they should be provided with proper training and resources whose quality and impact are monitored (Ozel and Arikan, 2015). Academics should be able to balance face-to-face and online components and actively engage and motivate learners.

Generally, for any successful implementation of blended learning, the following important elements should be carefully considered in order to achieve and sustain positive perceptions by learners and academics: academic engagement, awareness and support, technology availability, learners' readiness for and motivation towards self-directed learning (Haron, Abbas and Rahman, 2012). These areas are to be further researched, in order to identify the overall effectiveness of blended learning implementation in an institution.

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