Blended Learning Research in Malaysia – A Systematic Review with Special Focus on Blended Learning in Corporate World

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Abstract

Blended Learning (BL) is an approach that combines online learning and traditional Instructor-Led Training (ILT). Online learning, or e-learning, is made possible by various advanced technologies including smart phones and high-speed internet. It is important to explore and understand how BL should be conducted in Malaysia among the adults, or specifically working adults. This systematic review applies the systematic classification scheme (SCS) to determine articles’ bibliographic details, key themes, and analysis of BL studies in Malaysia’s corporate or non-academic context. These SCS’s also are the specific objective of this particular study. The findings show that the majority of Malaysia’s BL published articles were related to Higher Education Institutions (HEI’s) and school education. Moreover, based on reviews of articles published in reputable journals, it is found that most articles were exploring the design, factors, and evaluation of BL. Meanwhile, the last objective cannot be fulfilled since there is a limited number of BL articles related to BL practice in corporate or non-academic context in Malaysia. It can be concluded that the country needs more experience sharing on BL implementation among the working adults.

Keywords

Blended Learning (BL), BL in Malaysia, BL in Corporate World

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1. INTRODUCTION

Blended Learning (BL) is a combination of both traditional and online learning; with the former being a method where training is led by an instructor or better known as Instructor-Led Training (ILT) or Face-to-Face Learning (F2FL) (Figure 1) (Picciano, 2006; Kho et al., 2018). With the fusion of traditional learning and today's advanced internet-based application, we are witnessing the emergence of Blended Learning. BL has brought about a new dimension in various areas including corporate training where there are more possibilities in delivering knowledge at an accelerated pace (Dziuban et al., 2018).

Efforts to develop effective BL programs, however, pose many challenges. Various tools, technologies, and approaches are needed to design and develop BL programmes (Yahaya, 2018). Among the key challenges in developing BL are the awareness, e-content, and ecosystem (Khan, 2001). In order to ensure the success of BL, all elements must not be taken for granted. This has been clearly emphasized in Badrul Khan's Blended Learning Framework (Figure 2) (Khan, 2001). Yet, industry pioneers generally agree that BL will emerge as a driving force in business. This is due to the fact that they often seek opportunities to design more cost-effective ways to carry out training for workers.
1.1 Long-Term Vision of the Authors

As Malaysia is known as one of the developing countries, effective corporate training is essential for improving the workforce’s knowledge and competency. Therefore, BL is identified to be one of the means for achieving such a goal. In the era of the Industrial Revolution 4.0, it is quite unfortunate if the employer (private or government) did not take advantage of the available technologies and communication platforms to implement BL. Large companies such as Tenaga Nasional Berhad (TNB) and Telekom Malaysia (TM), and government departments such as Road Transport Department (RTD/JPJ), teachers from the Ministry of Education (MOE) and the Royal Malaysia Police (RMP/PDRM) may face certain challenges to conduct face-to-face courses due to several factors such as distance, cost, and commitment to operational duties (Yahaya & Alias, 2018; Jawi et al., 2018b).

Another example is, from a preliminary study among the Professional Driving Instructors (PDI’s) in Malaysia, which the total number of PDI’s in the entire country is almost 10,000, shows that they “faced difficulty to physically attend courses” due to time limitation (working on weekends), distance (centralize course and limited regional course), as well as financial issues (mostly middle- and low-income group; the majority are B40’s) (Jawi et al., 2018a; Jawi et al., 2018b). Thus, this group needs a proper structure of BL in order to make it easy for them to be retrained (refresher course) and expand their licensing capacity (new/upgrading course). The good news is that the majority of them are perhaps IT-savvy, i.e. 100 % owned smartphones and 97 % had internet data subscriptions (Jawi et al., 2018b).

Therefore, it can be said that the workforce from all sectors and all levels of industries potentially need BL as one of the solutions to their training needs. It is the vision of the authors to explore and publish more on BL studies especially in the non-academic perspectives (BL in academic: at school, college and university level). Based on the authors’ background reading for the past three years, it is presumed that in the Malaysian context, most BL research deals with academic context and people. Regardless, the authors have primarily sought to understand what has been done beyond the academic sphere, especially pertaining to BL research in the corporate world.

1.2 Objective

In this paper, the authors are keen to understand what has been researched in Malaysia as regard BL, by reviewing how BL has been explored by scholars. As such, the best way to achieve this objective is to conduct a systematic review of BL studies in the country. Each manuscript found will be examined according to the systematic classification scheme (SCS) (Junior & Filho, 2010; Oviedo-Trespalacios et al., 2016; Jawi et al., 2017), in order to determine the following: (i) the articles’ bibliographic details as well as the publishing status (reputable journal or not); (ii) the key themes of the BL articles; and (iii) an analysis on BL in the corporate world or non-academic perspectives. Thus, these three SCS’s can be considered as the specific objectives of the review, and it will be further explained in the methodology section.

2. METHODOLOGY

In this systematic review, all the relevant articles from indexed sources were considered. As per Figure 3, we utilized Google Scholar as a tool to carry out background research in order to get an idea of how far BL has been explored by Malaysian scholars, i.e. the first phase. Further research was then made with reference to established publishers including Emerald Insight, IEE Explore, Science Direct, Springer Link and Taylor & Francis (considered as higher quality manuscripts). Later, we screened for papers that were published between 2010 and 2018 (to reflect the latest development in the recent decade). As such, a total of 57 papers were finally selected for further analysis, i.e. the second phase. The papers were divided into several key themes and categories with reference to the study conducted by Zhang & Zhu (2017) as stated in Table 1.
3. RESULTS & DISCUSSION

We have found that to date, no systematic reviews have been conducted regarding BL in the Malaysian context, from both review phases. From the first phase of the investigation, there were 140 papers reviewed based on the titles and abstracts, in the epoch between 2002 and 2019. Figure 4 shows a total of research papers related to BL that were published by Malaysian scholars between 2002 and 2019. Based on the published years, it can be concluded that there is an increasing trend of BL papers published with the most papers were published in 2018 (22 papers). The most notable finding is that the majority of them were related to Higher Education Institutions (HEI’s) – 125 out of 140 papers as illustrated in Figure 5.
A total of 57 papers by several established publishers were selected for the second part of the review (Figure 6). Among them are from Emerald Insight (2 papers), IEE Explore (15 papers), Science Direct (20 papers), Springer Link (16 papers) and Taylor & Francis (4 papers). In terms of the year of publication, 2010 and 2011 produce the least number (2 papers), whereas 2012, 2015 and 2018 produce the most number (10 papers).

As expected, most of the papers are related to HEI’s with 52 papers out of the total 57 (Figure 7). Three of these papers are related to school education. Only one paper discusses BL in the corporate world, while another provides a general overview of BL in Malaysia. This shows that there are limited resources with regard to BL in the corporate sector.

In terms of themes, most of the papers discuss BL design (17), BL factors (18) and BL evaluation (20) (Figure 8). We found that the themes related to strategy (3), methodology (2) and review (2) are less discussed. It is to be noted that the total themes are 62 because few papers have multiple themes.
FIGURE 6 – BL papers by Malaysian scholars by established publishers (total = 57)

FIGURE 7 – BL papers by established publishers by sectors (total = 57)

FIGURE 8 – BL papers by established publishers by themes (total = 62; few papers have multiple themes)
3.1 Review of Study’s Objectives

Based on the SCS’s, which are also the specific objectives of this study, it is observed that studies regarding BL are getting more popular since the start of the new millennium. However, most of them are related to the academic world. Thus, these articles can only be used as guidance in applying BL in corporate or non-academic contexts, especially regarding evaluation and system design (referring to themes in Table 1). In terms of strategy and factors, it is quite unfortunate that it may not help much in corporate or non-academic as the trainees are mostly working adults, as well as having different challenges as mentioned earlier in the case of PDI’s (Jawi et al., 2018b).

Moreover, the third objective cannot be fulfilled since there is a limited number of papers with regard to BL practice in corporate or non-academic context in Malaysia. The only article found in an established journal is regarding “the emergency airway management training” for the emergency department at a hospital (Kho et al., 2018). The reasons why BL is critically needed, as mentioned in the article, are “these workshops can only admit a limited number of participants per course”, “the participants are required to be there in person throughout the entire workshop” and “there are inherent cost, time, place and manpower limitations in running such conventional face-to-face workshops”. It can be assumed that BL is the best solution for certain courses that cannot be done fully online (e-learning only) since certain competencies need to be demonstrated via F2FL, i.e. in front of the instructors or subject-matter experts.

4. CONCLUSION

Based on the systematic review conducted, it is shown that most BL studies in Malaysia are related to HEI and also school; with most studies generally referring to the education world. The authors find that there are limited resources for BL research, particularly with reference to the corporate sector as well as research related to the use of BL to working adults in Malaysia. This finding suggests that more studies need to be carried out to determine the role of BL in the corporate world or non-academic context, especially in the Malaysian context.

REFERENCES


