

## Thematic Analysis of Issues Experienced by Blended Learning Learners

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### **Abstract**

*Blended learning has been recognised as an opportunity to improve the teaching and learning process by complementing the strengths and weaknesses of face-to-face instructions and online learning. While most researches focused on the success factors, there is a research gap in the issues of blended learning which has become a barrier to the learning process. This research seeks to explore the issues of blended learning process experienced by learners in higher education. A survey to a selected group of Blended Learning learners based on convenience sampling techniques was carried out to explore these issues. Qualitative data analysis was used to analyse descriptive data thematically and categorised into few main themes. With regards to the issues, 37 raw themes were identified and were categorised into seven (7) main themes. The findings showed that Learning Management System (LMS) was the main issue followed by engagement issue, material issue, server issue, network issue, instructor issue and device issue. The recommendations made by the respondents were also discussed as their points of view are treasured. This study has direct implications to higher education policy makers, ICT administrative teams, curriculum designers, and educators as instructors for blended learning approach.*

**Keywords:** *Blended Learning, Learner, Issues, Instructors, Higher Education.*

## ***Analisis Tema terhadap Isu-isu dan Pengalaman Pelajar dalam Konteks Pembelajaran Teradun***

### **Abstrak**

*Pembelajaran teradun (blended learning) telah diperakui sebagai peluang untuk menambahbaik proses pengajaran dan pembelajaran bersemuka dan dalam talian. Kajian ini akan menumpukan kepada permasalahan dalam bentuk pengajaran teradun dalam proses pembelajaran kerana wujudnya lompong berikutan kajian terdahulu hanya menumpukan terhadap kelebihannya sahaja. Kajian ini meneroka isu-isu yang dialami oleh pelajar di institusi pengajian tinggi. Sebuah tinjauan terhadap para pelajar yang terdedah dengan proses pembelajaran teradun dilakukan. Data analisis kualitatif untuk mencari tema digunakan untuk menganalisis data deskriptif dari tinjauan itu. Sebanyak 37 tema asas dikenal pasti dan dimurnikan kepada tujuh (7) kategori utama. Dapatan kajian ini menunjukkan Sistem Pengurusan Pembelajaran (Learning Management System) adalah isu utama dan diikuti oleh isu lain seperti engagement, bahan, pelayan, rangkaian, instruktur dan peralatan. Cadangan yang dikemukakan oleh para responden turut mengambil maklum sudut pandangan mereka. Kajian ini mempunyai implikasi terhadap pembuat polisi pengajian tinggi, pasukan teknologi maklumat, pereka kurikulum dan pendidik serta instruktur yang menggunakan kaedah pembelajaran teradun.*

**Kata Kunci:** *Pembelajaran Teradun, Pelajar, Isu, Instruktur, pendidikan tinggi.*

## **Introduction**

Blended Learning (BL) is a combination of face-to-face learning with the Internet-based training, which allows learners, peers, and instructors to co-operate in the teaching and learning process. In the current scenario, BL can be considered as a type of electronic learning or its extension (Matukhin and Zhitkova, 2015). BL can also be described as a hybrid learning model where varieties of delivery mode are being used to

optimise the learning outcomes and often brings together the best of traditional learning and online learning modes (Wah, Keong, Ing, Jhee, & L.Lajium, 2014). Prior description proposed by Garrison and Kanuka (2004) illustrated BL as an approach and strategy that can be built upon in a progressive, systematic, and thoughtful manner, and over time, will transform the institution to a better level. They also stated that this is a “good to greatness” strategy. Hence, an education institution can extend its operating reach and create a market advantage compared to other course providers upon implementation of BL (Launer, 2010). Moreover, there were diverse instructional models and best practices of BL reported from simple use of computer or online mediated technologies to full usages of them for a complete course (Park, Yu, and Jo, 2016).

The needs for BL strategy are obvious due to the current increase of students’ population entering higher learning institutions. Investments in the traditional education would increase the cost of space, facilities and administration. To make education to be more cost-effective, BL is a definite option. However, without good management and proper planning of the BL deployment, the result may vary and the main objective of learning in higher education may not be achieved.

While some researchers believe that online learning is equivalent to face-to-face learning, the online learning portion still has its deficiency in which the issues must be recognised (Mosakhani and Jamporzmay, 2010). Failure in the implementation of BL would lead to dropouts among higher learners as it would stifle their performance. In response to that, evaluating the issues of BL experiences is crucial as technology typically supports only a part of the learning processes that engages the learners (Ginns and Ellis, 2007). Consequently, planning for BL deployment can take place more effectively once we recognise and acknowledge the issues that act as the weaknesses of this process and the challenges to the quality of learning.

Unattended issues and challenges that occur during the BL process may cause incompetent learning which would further lead to unfavourable learning results. Apart from the researches in success factors or strengths

for BL, comparative research looking into the weakness part of BL is in need to leverage its deployment in higher education. Guided by the necessity, the objective of this study is to explore the issues and challenges experienced by learners during the BL process in a higher education setting.

For reference, Universiti Teknologi MARA (UiTM), the biggest university in Malaysia has executed BL approach for more than ten years. To ease the implementation, five different models of BL have been introduced. These five available models for BL; namely model A, B, C, D and E can be selected by instructors based on the suitability of their courses. Each model has a different segregation of hours to be allocated between the face-to-face (F2F) mode and online mode.

The first model, 'Model A' is known as 'specific weeks' where BL is to be implemented within a specific week setting. For example, during the 14 weeks of lecture per semester, teaching and learning might be conducted using the F2F mode in weeks 1, 2, 3, 11, 12 and 13 while in the other weeks, the online mode is used. In the second model, 'Model B', both F2F and online modes are to be conducted in the same week in which 50% to 70% of the F2F mode is used while the remaining is allocated for the online mode. In the third model, 'Model C', the implementation of BL is divided equally within the 14 weeks. The first seven (7) weeks is allocated for the F2F mode and another seven (7) weeks are allocated for the online mode or vice versa. In the fourth model, 'Model D', the F2F mode is used alternately for one third of the 14 weeks.

For example, the F2F mode is used in the first and fourth weeks while the online mode is used in the second and third weeks. The same sequence continues for the rest of the 14 weeks. The final model is 'Model E' where implementation of the online mode is based on appropriate topics in which some topics can be learned using the F2F mode and some others using the online mode. Overall, the implementation of BL through flipped learning is strongly encouraged where lectures are to be conducted online while discussions and activities of higher order thinking skills are to be conducted using the F2F mode.

## **Research Methodology**

This research aimed to investigate the issues experienced by learners of higher education during the BL process. A short survey was conducted to obtain prior information from selected undergraduate learners who were involved in BL. As the main intention was to explore the issues and difficulties faced by these learners, a qualitative study with inductive method was employed by using open-ended questions in the printed survey form.

### **1. Sampling**

Sampling was taken from two groups of undergraduate learners from the Faculty of Communication and Media Studies in UiTM Shah Alam. The total number of learners was 38 where 14 of them were grouped into Group A and another 24 were grouped into Group B. All of these learners have undergone at least two and a half years of higher education and they have had the experience of BL since it was an essential teaching and learning approach practised by the university. This study employed a convenience sampling technique as the data collection was done while these groups of learners were attending a software competency workshop in the university. The survey was conducted during the break hour on the second day of the workshop. A small token of appreciation was given to motivate them to answer the survey and a 100% response was obtained. For Group A, the survey was handled by the class representative who was given the responsibility to distribute the survey forms and collected them from the respondents immediately after they had completed their responses. For Group B, the same method was applied but it was self-administered by the researcher.

### **2. Instrument**

A set of questionnaires that comprised of four items was used to gather information in order to access the issues and challenges faced by higher education learners with regards to their experience in BL.

The first two items were inclusive of nominal items for selection of gender and level of satisfaction of their overall learning experience using the

online mode as a part of BL. This was followed by open ended questions asking about the issue they faced in the BL process and their suggestions for improvement of the BL.

To avoid misunderstanding of BL among respondents, explanation on BL was given to them in a form of an image which was attached below the title of the survey form. The researcher's intention for the data collection was written in one short paragraph together with a thank you note in advance for their co-operation in providing the feedbacks.

### **3. Data Analysis**

For this study, the data was entered into the MS Excel software using a form method. MS Excel is a well-known spreadsheet software in accounting for its' powerful capabilities in managing calculation and graphical data representation. Many does not realised that this software is also able to facilitate text analysis through the utilisation of available functions such as the text filter and pivot table. A qualitative analysis is possible to be performed in any text based software as long as it is flexible and user friendly (Miles and Huberman, 1994).

For the identification of issues, thematic analysis was utilised. Each of the issues was analysed and their identified theme was noted in a new column in the same data file. The raw themes were then transferred to another column based on their categories and the process of filtering was done a few times to ensure similar themes were grouped together.

### **Findings and Result**

One third of the respondents were females while the remaining were males. The demographic information based on gender is shown in Table 1. Most of the respondents (68%) claimed that they were generally satisfied with their BL experience. The analysis of the respondents overall experience in the BL process is shown is Table 2 with 5% of the respondents were very satisfied, 19% somewhat unsatisfied, 5% unsatisfied while there only 3% (N=1) of the sampling claimed to be very unsatisfied.

Table 1: Gender information

Gender	Frequency	Percentage
Male	10	26%
Female	28	74%
<b>Total</b>	<b>38</b>	<b>100%</b>

Table 2: Overall experience of blended learning

Gender	Frequency	Percentage
Very Satisfied	2	5%
Generally Satisfied	26	68%
Total	38	100%
Somewhat Satisfied	7	19%
Unsatisfied	2	5%
Very Unsatisfied	1	3%
<b>Total</b>	<b>38</b>	<b>100%</b>

Based on the data collected, not everyone has answered the open ended questions which asked about issues they faced in BL as it was an optional question in the survey form. Only 66% of the respondents (N=25) provided feedbacks regarding the issue of BL and all their feedbacks were later analysed and grouped into few categories according to the themes. Considering those who had provided feedback on the issues, the thematic analysis was conducted to identify the emerging themes which were common and similar. Some respondents only highlighted one issue while some provided a few issues that can be classified into a few themes. Data analysis was done through data identification of the raw data according to specific themes which are then grouped into the main themes. The outcome of the content data analysis resulted in 37 raw data themes concerning issues faced by the respondents in the BL process. These raw data themes were then categorised into seven (7) main themes.

The main themes for the issues faced by the respondents in the BL process were learning management system (LMS) issue, network issue, server issue, instructor issue, materials issue, engagement issue and device issue. The main themes and sub-themes are shown in Table 3.

Table 3: The main themes and sub-themes of issues

Main themes	Raw Data Themes (Sub-themes)
LMS issue	<ul style="list-style-type: none"> <li>i. Login problem</li> <li>ii. i-Learn system problem</li> <li>iii. i-Learn system not updated to trend</li> <li>iv. Frequent system time-out</li> <li>v. Technical issue, system hang</li> <li>vi. System always break down</li> <li>vii. System sometimes gives error</li> <li>viii. System problem</li> <li>x. Sometimes hard to access</li> </ul>
Server issue	<ul style="list-style-type: none"> <li>i. Server access problem</li> <li>ii. Server down</li> <li>iii. Server congestion, sometimes hard to access</li> <li>iv. Sometimes hard to login to server</li> <li>v. Sometimes server down</li> </ul>
Network issue	<ul style="list-style-type: none"> <li>i. Network problem</li> <li>ii. Slow network</li> <li>iii. Network easily disconnected</li> <li>iv. Network issue</li> <li>v. Quality of network</li> </ul>
Material issue	<ul style="list-style-type: none"> <li>i. Material quality issue</li> <li>ii. Need material in video form for better understanding</li> <li>iii. Need more attraction towards BL</li> <li>iv. Need to be more interactive and colourful</li> <li>v. Material less interesting</li> <li>vi. More materials required for reference</li> <li>vii. Material are less attractive</li> </ul>
Instructor issue	<ul style="list-style-type: none"> <li>i. Late response from instructor</li> <li>ii. Less comments from lecturer</li> </ul>
Engagement issue	<ul style="list-style-type: none"> <li>i. Delay in communication</li> <li>ii. Less interactive</li> <li>iii. Require interesting feature to improve online pedagogy</li> <li>iv. Less engagement</li> <li>v. Less interaction</li> <li>vi. Hard to understand</li> </ul>
Device issue	<ul style="list-style-type: none"> <li>i. Computer problem</li> <li>ii. Limited access to computer lab</li> </ul>



## Discussion

Based on the 37 themes identified, the theme that showed the highest percentage is the criterion of LMS issue that contributed 24% of the themes, as shown in Table 4. The second highest is the engagement issue (19%), followed equally by the server and network issues, both 14% of the themes. For instructors, engagement, and device issues, the percentage of raw themes is of the lower percentage but this does not mean that these issues are not important. For example, for the instructors' issue, the same issue of late response by instructor was repeated a few times by several respondents but this issue has been combined into one raw theme since the issues were similar.

Table 4: The themes and percentage

No	Main theme	Raw themes	Percentage
1	LMS issue	9	24%
2	Engagement issue	7	19%
3	Material issue	6	19%
4	Server issue	5	14%
5	Network issue	5	14%
6	Instructor's issue	2	5%
7	Device issue	2	5%

Many respondents highlighted the issue related to LMS or known as i-Learn system in the university. The LMS server is located in the campus with a slow connectivity in supporting a huge number of users. Being the biggest university in Malaysia, the LMS system has more than a hundred thousands of users who are required to access the system. This challenge caused difficulties for BL learners who are mostly staying outside of the campus grounds due to the limitations of the in-campus hostels. Distance, network speed and server limitations became issues for learners to access the LMS server for their online learning.

To improve the BL process, suggestions from the respondents must be considered. Among the suggestions received from the respondents were to create more interactive learning sessions and any systematic procedure of the process is to be shown in a video form. These techniques will help them to understand the lesson better and the learning process will be more interesting with better learners' engagement. Another suggestion relates to the learning material where respondents suggested for a compilation of learning materials inclusive of notes, exercise or reference during the class lecture to be implemented into an online platform that will enable them to download the files afterwards. This is a good suggestion as it will help for future reference apart from their face to face learning session.

The suggestions for interactive learning sessions and availability of online materials are closely related to the learning design. Study by Li, Marsh and Rienties (2016) indicated that a learning design has a strong and significant impact on overall learners' satisfaction. The study had involved 62,986 learners from the Open University in United Kingdom (UK) which is the largest higher education provider of online distance education in Europe. In addition, their research has also identified that learners who were more satisfied with the quality of teaching materials, assessment strategies, and workload were more satisfied with the overall learning experience. Another similar findings were also reported earlier by Sun, Tsai, Finger, Chen and Yeh (2008) based on the survey to investigate critical factors affecting learners' satisfaction in online Learning. This particular study has developed an integrated model with six dimensions: learners, instructors, courses, technology, design, and environment. The results revealed that course quality and the ease of use were critical factors affecting learners' perceived satisfaction.

Apart from that, most of the suggestions highlighted by the respondents focused on the improvement of the system. This is clearly due to the issues faced by the respondents are mostly related to the LMS. They suggested that the LMS system to be more user-friendly, easily accessible, upgraded to a better system, reduce the error, and improve the quality of the system. Generally, LMS functions as a backbone to develop a learning environment for education institutions to centralise and organise online learning mechanism and track learner's progress quickly

and effectively. Effective learning environments give learners a chance to learn better and faster (Mirabolghasemi, Iahad and Qomaruddin, 2014). Although it is noted that LMS can bring many benefits to an organisation, conversely, a LMS could not reach all of the advantages by its own. The LMS system certainly requires education institution readiness, as well as the support from the top management, technical and administrative staff, instructors and everyone involved in the BL process.

To make the learning better, the respondents also emphasised on the interactivity and attractiveness of the BL process inclusive of communication with the instructors and the quality of the materials given. When an effective communication is practiced, it will benefit both the learner and the instructor. Generally, communication helps learner and instructor to achieve their goals as it makes the learning process easier and increase opportunities for expanded learning. Moreover, it strengthens the relationship between learner and instructor while develops an overall positive experience. For example, if the instructor gives feedback to show interest in a learner's opinions, the learner will feel that their thoughts or ideas are appreciated. Indirectly, this communication process helps in the development of learner's self-esteem and at the same time, increases their confidence level. This is supported by Rotgans and Schmidt (2011) who mentioned that an instructor has a significant influence on an learner's interest in BL.

With regards to the instructional communication, a study by Staton Spicer and Marty White (2009) on the instructor's concern about communication identified several types of different behaviours which the instructors engaged in response to his concern of learner's understanding. The same study also confirmed that there is a positive relationship between the instructor's communication concern and his teaching behaviour. The particular research found that an instructor's communication in a face-to-face class session is directed and affected by his concern on communication. Although this study is focusing in the classroom setting, there are chances for the same behaviour to be present in the online communication as this is part of the instructional communication theory. However, extended research would be helpful to confirm that this theory is also applicable in the BL environment.

Furthermore, respondents from this study also suggested enabling video conference for better communication during learning so that they can imitate face-to-face interaction during class and can get better understanding of the lesson learnt even though it is only via the Internet. This suggestion is in line with the recent study by Park, Yu, and Jo (2016) as their study found that most courses did not incorporate diverse activity items where utilisation of video conferencing was not mentioned at all while group works, quiz, Wikis, and discussion forums were the least utilised. Research findings also showed that most frequently utilised activity item only resources, announcement, questions and answers, lecture notes, and assignment submission.

Finally, few respondents suggested for the network to be fixed and upgraded accordingly to meet their needs for BL. This is crucial as without overcoming this issue, the materials would not be able to access, learner cannot reach and communicate with peers and instructors and the online learning is not possible to happen. In particular, network speed and broadband access are very much the reason for the many advantages of BL (Alebaikan, Troudi, and Calt, 2010; Alias, Luanan, and Yahya, 2014; Wah, Keong, Ing, Jhee, and L.Lajium, 2014).

With regards to technological issues which are highlighted in the literature, these groups of learners seem not to have much issue on the competency towards technology based on their feedbacks during the informal sharing session and observation by the researcher. It was observed that they have their own group social networking site by using Facebook to share their learning materials, announcement, and activities. This is a good effort which indirectly supports BL as it eliminates technology anxiety since they are familiar and actively using the current web 2.0 tools available in the internet for their social and learning activity (Stone, 2009). Web 2.0 tools have great features for interaction, user friendly and smooth interface. Social networking sites have an advantage as sites were accessible using smartphone which are owned by most of the learners and web 2.0 was found to be the second most popular tool used by learners in Malaysia after text messaging (Noor Mayudia, 2016). This is part of the reasons that lead to their expectation to have more interactive features in the LMS as per suggested by a few respondents in the survey.

## **Conclusion**

This research attempts to understand the issues experienced by learners in BL. The respondents were undergraduate learners in one of the public university in Malaysia who have experienced the BL process. The findings revealed positive results of blended learning implementation in the university where most of the respondents were satisfied with their overall experience in BL. The purpose of finding the issues in BL experience was met through the thematic analysis using thematic and categorisation of the data which resulted in seven (7) main categories of issues.

Learners' satisfaction is important and in line with that, their learning needs must be fulfilled. Thus, there is a need for good platform and instructional policies to be embedded in the BL implementation and practices with a direct impact on how much and how well the learner learns.

In other words, based on the current findings where the most highlighted issues was LMS issue, it is necessary to support and organise their learning experience so that they are positively able to adopt the BL process. According to Park et al. (2016), it is significant to consider the investment to improve the LMS and consequently develop the LMS in a strategic way.

Thematic analysis also identified other issues that can be categorised into two (2) main clusters, facilities related and instructor's related. Facilities related cluster are network issue, server issue and device issue while instructor's related cluster are materials, engagement and the issues of instructors. For example, the issues of late feedback from instructor in online communication that would risk the decrease of learner's motivation must be prioritised and handled wisely. This issue is closely associated to the instructor's online presence that seems to be a tension which need further examination and resolution (Wah et al., 2014).

It is crucial to find more effective and flexible delivery models to provide all learners with access to quality learning experiences (De George-Walker & Keeffe, 2010). Thus, to clearly understand the issues and challenges

in BL are essential as leaving the issues unattended would turn them into barriers which might risk the learning process. Subsequently understanding the issues, the management should move forward to evaluate their importance and take immediate action without further due. One of the best ways to manage the issues is to map it into risk management as it helps to prevent failure of implementation and to have a better control of the risks that might occur. At the same time, mapping the issues into risk management will also assist the management to turn the issues into an opportunity, for good strategic planning, and towards ensuring the effective implementation of BL. Overall, effort to understand the issues is not about simply managing learner's concern just to satisfy them, nevertheless it benefits the higher education in offering a better service and meeting institutional imperatives for efficiency in teaching and learning.

Further research is recommended to combine the survey with an interview to selected respondents in order to further understand the issue as some was ambiguous to be translated due to less explanation on the short-given statement. Even though interview is the most difficult one to get it right, it is a major source of data collection whereby the interviewee will help in making meaning of the earlier retrieved information (DiCicco-Bloom and Crabtree, 2006).

Hence, exploring and understanding the issues surrounded by learner has a significant contribution in managing a better BL implementation and towards improving the learning process especially in the higher education setting. This type of research would be a good start towards optimizing the great potential of BL in promoting learning (Maarop and Embi, 2016).

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