ENGAGING HIGHER EDUCATION STUDENTS WITH SOCIAL MEDIA:

MIB MODULE CASE STUDY

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ABSTRACT

This thesis reports on a study which investigated the application of social media in teaching Malay Islamic Monarchy (MIB) in a University of Brunei. The aim was to complement the on-campus delivery of this module, encourage student engagement and produce more active than passive learners. However, tensions existed between social media and the content of the course because of the potential of social media to drown and influence Bruneian Malay cultures and Islamic beliefs in a way that is not consistent with MIB.

A questionnaire to 362 undergraduate students at the University of Brunei Darussalam taking the PB1501 MIB module in the semester 1 2012/2013 provided an initial sense of social media use and expectations. Six MIB teachers were also selected to represent different perspective of using social media in MIB module. Furthermore, the observation of ten MIB Facebook groups spaces and content analysis of ten MIB Facebook groups' transcripts produced information on teaching and learning activities as well as findings as to how teachers facilitate student engagement.

The findings of the study indicate that whilst social media is a tool that should be able to solve the pedagogical problems in the MIB course, at the same time cultural obstacles are perceived by some teachers in this particular setting, impacting on its acceptance. Findings suggest that the implementation of social media such as Facebook in order to solve a pedagogical problem have raised tensions in this specific cultural environment. The research also shows the MIB teachers have mixed feelings about the fact that social media could complement MIB education.

A way of conceiving the tensions between these issues is provided by the Technological Pedagogical Content Knowledge (TPACK) framework developed by Koehler and Mishra (2009), which is used to understand teacher decisions with respect to MIB, MIB pedagogy and social media (TPACK). This shows the connections and interactions between the content of MIB, the MIB pedagogy and social media.

DECLARATION

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DEDICATION

To my parents, husband, daughter and son,

With endless love and gratitude

ACKNOWLEDGEMENT

ABBREVIATIONS

APB   Academy of Brunei Studies

CK   Content Knowledge

CoI   Community of Inquiry

MIB   *Melayu Islam Beraja* (Malay Islamic Monarchy)

PCK   Pedagogy Content Knowledge

PK   Pedagogy Knowledge

SNSs   Social Networking Sites

TCK   Technology Content Knowledge

TK   Technology Knowledge

TPACK   Technological Pedagogical Content Knowledge

TPK   Technology Pedagogy Knowledge

UBD   University of Brunei Darussalam

URL   Uniform Resource Locator

CHAPTER 1: INTRODUCTION AND BACKGROUND OF THE STUDY

1.1. THE RATIONALE OF THE RESEARCH

The usage of social media particularly Facebook has shown its rampant development in all aspects of education (Woodley & Meredith, 2012). In Brunei, social media sites have started being used as a tool to help education, i.e. in teaching and learning as teaching material with the result that information can be delivered more effectively and easily as it is accessible at any time. Teachers have also begun to use social media sites as a place to provide notes or information about university courses to students by sharing or uploading the information on social media sites such as Facebook.

As identified by Junco *et al.* (2011), social networking such as Facebook and Twitter has become an important part of college students' lives nowadays with Facebook being the most popular social networking site. Nosko and Wood (2011) indicate that social media is capable of supporting social interactions, building social communities and forming social relations inside and outside the classroom, by enabling people to join discussion or interest groups and share information, ideas, and opinions among themselves. Rice *et al.* (2011) acknowledge that social media offers the potential to foster immediate collaboration and participation as well as the possibilities to integrate important new skills such as distributed cognition and collective intelligence. Wang *et al.* (2012) claim that Facebook appears to provide countless abilities for teaching and learning since a lot of students are consuming Facebook regularly. In a similar vein, studies by Yu *et al.* (2010) and Lei *et al.* (2012) strengthen the claim that social networking sites have enticed a massive following among the students at universities and it turn out to be an fundamental part of their everyday lives.

There have been many other articles published in educational literature on the merits of social media in higher education by educationalists (Agarwal, 2011; Hughes, 2009; Woodley & Meredith, 2012; Barden, 2012) interested in looking for ways to engage and motivate students to be more active learners.

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These studies suggest social media have the potential to enhance learning, especially in higher education. However, such initiatives must also account for the potential tensions which exist between the affordances and motivations behind the spread of social media and its pedagogical uses (Woodley & Meredith, 2012). This thesis reports on a study which investigated the application of this technology in teaching Malay Islamic Monarchy (MIB) in a university in Brunei. The aim was to complement the on-campus delivery of this module, encourage student engagement and produce more active than passive learners. However, tensions existed between social media and the content of the course because of the potential of social media to drown and influence Bruneian Malay cultures and Islamic beliefs in a way that is not consistent with MIB.

1.1.1. MALAY ISLAMIC MONARCHY (MIB)

In the following section, the historical background regarding MIB will be discussed along with the definition of each element that is found in MIB philosophy.

1.1.1.1. Historical Background

Brunei is endowed with its National Philosophy, *Melayu Islam Beraja* (Malay Islamic Monarchy) which is also known as MIB. At the proclamation of independence on 1 January, 1984, the Sultan declared MIB to be the national philosophy which must be honoured and practised by all the people of Brunei (Md Zain, 2013).

> *"It is therefore clear that Brunei Darussalam upholds the tenets of Malay Islamic Monarchy or Melayu Islam Beraja (MIB) as a realistic formula to ensure amity among its people." (Royal Speech, 1984)*

His Majesty formalised it as a philosophy that sustains Islamic main beliefs and values which are based on the Quran and Hadith as the foundation of all undertakings relating to the Malay culture, language and ethnic essential, as well as the monarchy institution as the leading structure and organization of Brunei Darussalam (Brunei Yearbook, 2000).

The Sultan speaks of MIB as integral to the nation's identity which is not merely meant to be known but must also be made obvious and always visible, practised and appreciated and that identity has to be truly established on Brunei's soil to prevent infiltration of unwanted elements that are not suitable or incompatible with the nation's very own identity (Mohamad, 2006). Whether it is reforms to the court, school and university curriculum, economic policy, defence, sports promotion, censorship, administrative procedures, dress requirements, or home design, MIB will be the underlying rationale (Black, 2008).

1.1.1.2. The *Melayu* (Malay) Element of MIB

Malay in Brunei is divided into seven indigenous groups, *Belait, Bisaya, Dusun, Kedayan, Murut, Tutong* and Brunei Malays (Md Zain, 2013). However, according to Matussin (1996), there have been substantial numbers of indigenous people from Borneo living in Brunei, such as the *Iban/Dayaks, Penan* and *Kelibat*, together with a significant Chinese population, and others that comprise expatriates from Europe, Asia, Australia and New Zealand, who are employed in the professional areas, and people from the Philippines and Thailand who are in the construction and service sectors.

Although there are multi-ethnic people living in Brunei with different beliefs and values, they with appropriate respect recognize the Brunei Malay as the national culture. As pinpointed by Matussin, (1996), "*Undeniably the Brunei Malay culture is the soul of the Brunei national culture*". This is identified by Black (2008) in saying that the population of Brunei comprises numerous ethnic groups speaking mutual unintelligible languages which each belong to one language family, as well as having different religious practices such as Islam, Christian, Buddhism and Taoism. Black (2008) adds that there has been a long-lasting approval, by all of the ethnic groups that the culture of Brunei Malay acts as the leading feature of Brunei national culture.

1.1.1.3.   The Islam Element of MIB

According to Black (2008), *"MIB has legitimised an uncompromising Government promotion of Islam in every aspect of life in Brunei, both private and public"* (p.15). As an Islamic country, Brunei values everything which symbolizes Islam in a moderate manner whereby it highpoints important events in Islamic history for instance the birth of Prophet Muhammad and other special days in the Islamic calendar for example the fasting month of Ramadan (National Philosophy, 2006). During the fasting month of Ramadan, the Brunei government shows its respect, as officers and staff in the government sector work an hour and half less than the daily normal working hours aside from Ramadan in addition to temporarily suspending all entertainment and sport activities (National Philosophy, 2006).

According to Black (2008), the promotion of Islam is not reserved for just the powerful Ministry of Religious Affairs or the committed Department of Education but is pivotal to the work of every department and sector of Government. Black gives the illustration that the Ministry of Industry and Primary Resources has a focus on ensuring the authenticity of halal food in production and processing which is in accordance with Islamic requirements, with a secondary aim of making Brunei a halal food centre for the world. She also indicates that the Ministry of Finance is promoting Brunei Darussalam as an international Islamic money market and Islamic financial centre. Another example according to Black (2008) is where the Ministry of Law promotes Islamic law, and dispute resolution processes are consistent with its duty under MIB. Additionally as identified by Black, the Attorney-General has called upon all legal practitioners in Brunei to focus on Islamic systems especially in finance and banking, and encouraged them to study Islamic laws. Brunei reached a significant milestone in the enforcement of Islamic law after declaring the Order of the Penal Code in Islamic Jurisprudence introduced in May 1, 2014 (Abu Bakar & Awang Sulaiman, 2014).

1.1.1.4.   The *Beraja* (Monarchy) Element of MIB

The Monarchy component sanctifies the absolutism of the monarchy in Brunei. Black (2008) describes that the relationship between Monarch and people is labelled as "*Always Together with His Subjects*", that is a testimony to living democracy. In this sense according to Black (2008) it is seen to provide a unique interpersonal relationship allowing for communication between Sultan and his subjects, so they exist in a symbiotic relationship based on mutual trust and respect for each other's role and contributions. Black (2008) indicates that the opportunities for closer ties with the ruler take place at several gatherings with people in villages, mosques and workplaces in all districts throughout the course of a year, demonstrating that the Sultan is '*at pains to be presented as a "hands-on" caring monarch*' (p.35).

Low *et al.* (2011, p.3) have argued that the national philosophy of MIB has directed the Sultanate to make considerable progress in developing an upright society across all strata as well as paying attention and concern for its people's well-being. Low *et al.* (2011) also note that harmony exists as result of the Bruneians perceiving the Sultan as the "*provider, caring and showing concern for their welfare and wellbeing*" (p.3). Additionally, Low *et al.* (2011) illustrate that Bruneians benefit in having free income tax, education and health services.

Black (2008, p.34) points out the Brunei Government's approach can be best described as a top-down model because it allows the government to make decisions for the benefit of its people. She adds that the king did not just make these decisions, but is responsible for providing funds to implement all government facilities. Furthermore, these facilities furnished by the Government of Brunei are promoted as the manifestation of the generosity and compassion that the Sultan has for His people, and this requires in return the love, gratitude and support of the people (Black, 2008, p. 34).

1.2. MIB EDUCATION

This section introduces historical background of MIB and discusses the issues that are encountered in the MIB subject.

1.2.1. Historical Background

Abu Bakar (1997a) indicates that after independence, pressure to hold MIB education programs in schools became significant; school plays an important role to equip today's generation with knowledge of the philosophy and the nation's cultural values.

In January 1992, MIB was introduced as one of the subjects in the curriculum of government secondary schools as well as non-governmental organizations (MOE Circular, 1995). Under the initiative of the Department of Curriculum Development, Ministry of Education, the MIB curriculum was compiled and then implemented in schools and thereby, MIB became officially one of the subjects in the curriculum of secondary schools in Brunei Darussalam (Abu Bakar, 1997a).

As stated by Abdul Latif (2003) the Malay Islamic Monarchy books that were published in 1992 were intended as basic text books for secondary students in order to be able to provide knowledge and understanding of the philosophy of life that is based on Malay, Islam and Monarchy. Abdul Latif (2003) states that the contents of the Malay Islamic Monarchy Book for secondary students contains the social aspect of the role and responsibilities of individuals to family and culture with an emphasis on recognizing and understanding the natural art of Brunei, aspects of nationhood by emphasizing rules and disciplines, and religious aspects with emphasis on worship.

According to Abdul Latif (2003), although it is a compulsory subject that must be followed and studied by secondary students, this subject is not included in public examinations but only evaluated in monthly tests. Abdul Latif (2003) adds that in January 2001, the Curriculum

Development Department, Ministry of Education, compiled a book entitled 'The MIB Subject Assessment Guidelines' which provides methods and techniques to give assessment in the classroom divided into three stages:

1. Immediate assessment when teaching students: To give examples of reactions
2. Progress assessment: Performance of the students from time to time
3. Performance Assessment: Score grading that is usually conducted at the end of each school term

In higher education such as at the University of Brunei Darussalam, the MIB course is taught and managed by the Academy of Brunei Studies. As stated by Abdul Latif (2003), the MIB course which is coded as AB1503 at a higher level contains aspects of discussions and debates about contemporary issues such as halal foods, politics, the social, scientific and economic status of women in Islam, the relevance of tradition in modern times and other areas that contribute to the overall experience of life in Brunei. Abdul Latif (2003) also indicates that at a higher level, undergraduates are required to pass the Malay Islamic Monarchy course and without passing the examination, they cannot be awarded any degree, diploma or certificate; this is, therefore, a compulsory course across all subjects.

After the implementation of the new policy in the University of Brunei Darussalam that started to be effective in August 2009 (Mundia, 2012), MIB that was formerly known as a course, now a module and was given a new code PB1501. The content of the module does not show much change as it still includes for example the definition and concept of MIB, history of the formation and evolution of MIB, norms and values of MIB, MIB as a way of life and its implementation and MIB in a globalization era (Academy of Brunei Studies, 2010). The significant changes are in the way it is assessed. Previously, assessment for AB1503 was based on 70% Examination and 30% Coursework which consisted of 10% presentation and 20% Essay writing (Academy of Brunei Studies Handbook, 2008). When the new policy was introduced, the pedagogical assessment was by means of 100% coursework. The table below shows how MIB teaching is currently organised (*see Table 1.1*):

Module Code :	PB-1501		
Module Title :	Malay Islamic Monarchy (MIB)		
Type of Module :	Compulsory Breadth for all Bachelor programmes		
Modular Credits :	4	Student work load : Contact hours for timetabling :	8 hours per week 2 hours per week
Pre-requisite :	None		
Anti-requisite :	Non-Malay speaking International Students		

Aims

This module aims to provide students with depth and broad understanding of MIB as well as to enhance awareness of the national heritage and adopt it in modern contexts. Through this module students are expected to be able to elaborate on the concept of MIB; identify, implement and practice the norms and values of MIB in their daily life. The students are also expected to be able to evaluate the society's daily life in line with MIB.

Module Content :
- Definition and concept of MIB
- History of formation and evolution of MIB
- Norms and values of MIB
- MIB as a way of life and its implementation
- Islam as the core component of MIB
- Islam as the official religion in the Brunei constitution
- Monarchy Component in MIB
- MIB and Globalization
- MIB Leadership and Administration
- MIB in the Education System
- MIB in Science and Technology
- MIB and the Environment
- MIB Economy
- MIB in Brunei Legislation

Assessment

100% Coursework

1. Participation   20 %
2. Presentation   30%
3. Report   30%
4. Test
   a. Short Answer Questions   10%
   b. MCQ   10%

MODULE OVERVIEW:

PB 1501 Melayu Islam Beraja has two classes:

1. 2 hour lecture (every Tuesday 10:00-12:00)
   Weekly lecture will be given by invited speakers from inside or outside the University. A quota of 400 students will be expected to attend this lecture.
2. 1 hour tutorial (every Saturday, 8:00-9:00, 9:00-10:00, 10:00-11:00, 11:00-12:00, 2:00-3:00, 3:00-4:00, 4:00-5:00)
   Students will be informed of the date of the registration. Every student MUST register and choose which time is suitable with their academic schedule according to the availability. They have to choose another tutorial group if the group time they choose is no longer available. Students will be informed of their group number during the registration. Each tutorial group can only register a maximum of 20 students*.

*subject to changes

Table 1.1 PB1501 MIB module overview
Source: Academy of Brunei Studies Handbook (2012)

1.2.2. Issues in teaching MIB as a subject

There are several issues that are still being encountered in the MIB subject whether in secondary or higher education institutions. Mastura (1997) points out that in secondary schools, students generally have less interest in this subject as they generally consider MIB as a subject not important compared to other subjects in the public examination list with the result that students demonstrate poor commitment. Moreover, according to Mastura (1997), MIB is delivered in a traditional subject-centred way where teachers put too much emphasis on the giving of information and ignore the needs of involvement between students. Mastura (1997) also claims that inability to provide teaching aids that can make learning more interesting became one of the reasons why this subject was neglected.

Contrary to the situation with secondary schools as stated by Mastura (1997) earlier, according to Abdul Latif (2003) students show a much higher level of commitment in the MIB course, due to the fact that this course is a compulsory subject in the University which undergraduates must pass before they can be awarded the degree, diploma or certificate.

However, that exam driven commitment does not necessarily translate into motivation to engage with the subject matter and the predominant use of lecture format delivery contributes to this challenge. Lectures are considered to be one of the most effective and significant ways to present MIB information which comes from multiple sources on complex topics given by knowledgeable people from different fields, as MIB lectures usually are given by an invited Minister or officers from a government sector. Wood *et al.* (2007) highlight that lectures can distribute large amounts of material efficiently and can be used to present material not obtainable elsewhere or of a nature that is hard to find because of originality, complexity or difficulty. Additionally, the lecture format is the most immediate way of delivering to the number of students the university sees in such classes, ranging from 100 to 400, and is most likely to remain as the most prevalent teaching method for large classes in universities.

Nevertheless, Abu Bakar (1997b) suggests that as a subject that covers many aspects, the implementation of MIB teaching and learning ought to be more systematic and better organized. He adds that MIB teaching and learning can be improved if it is taught with a variety of styles, approaches, methods and strategies that can attract students' attention on three aspects of cognitive, affective and psychomotor at the same time.

Likewise, Bligh (2000, p.63) criticises lectures for having a very limited function that neglected social interaction and also suggested the lecture must be complemented by other teaching methods such as seminars and tutorials.

1.3. RESEARCHER' S MOTIVATION

As a former student in the university and currently an MIB tutor for 3 years at the Academy of Brunei Studies, this context provided the stimulus for this current study. The nature of this MIB lecture class that has large numbers of students that used to exceed 500 students each semester until the students quota was introduced, often led to the issue of poor engagement in lecture class.

Although MIB in University of Brunei Darussalam (UBD) has already complemented the lecture class with 1 hour tutorial groups weekly, my experience also leads me to the conclusion that tutorial classes are not adequate to accommodate the compact range of activities, including presentations, debates and question sessions, which are required in about 50 minutes each session. Often we tutors exceed our time, especially if the tutorial class has active students. On the other hand, my personal experiences also suggest that even in tutorial classes there were students who seldom talked with other students, particularly, if the classes consisted of students from different faculties. They only communicated with the ones they knew. Hence, it imposed silence on the tutorial class. Only students who are talkative would be active in class asking questions and giving opinions, while others kept silent and did not engage fully.

Taking account of the issues of overused tutorials and the issues of students' varied levels of engagement gave me the idea of using new emerging technology such as social media to help overcome this problem. Therefore, I decided to conduct research in this area with the hope that it could contribute to the improvement of MIB teaching and learning in higher education.

1.4. RESEARCH PROBLEM

Looking at the issues of less interest among the students due to the arid delivery of traditional methods, classes consisting of large numbers of students and overused tutorials that provide few avenues for students to become engaged, it is hypothesised that social media such as Facebook can help address pedagogical problems raised. Through social media, students can interact with the student community and be active in giving opinions and sharing ideas, to overcome the lack of engagement inside lectures and tutorial classes. As stated by Jaffar (2014), Facebook can assist classroom teaching and improve a number of social, historical and creative components to education in order to inspire students' group effort and eagerness. Baran's (2010) findings indicate Facebook could be used for knowledge sharing in a formal education context. Her findings also suggest that the students communicating via Facebook with their classmates help to motivate each other in learning.

However, it is also vital to consider the threat of social media to education. Bonzo and Parchoma (2010) point out that social media is being specified as 'disruptive' due to the manner in which the traditional learning setting is disrupted, resulting in situations which could be quite threatening to the existing academic structures.

The first threat is to academic integrity. As stated by Cain and Fink (2010) the students have the capability to '*cut-and-paste*' materials by electronic means from social media. They suggest that the issue of plagiarism is the current practice among the students and this gives rise to the existing worries that could violate the exclusive rights of the writer's or owner's original work.

Secondly, there is also the threat to personal space, for example in the guise of cyberbullying. Cyberbullying is a term that has emerged over time and O'Keeffe *et al.* (2011) suggest that it is a threat that faces young people in social media spaces. They outline how serious this can become, indicating that the impact can lead to "*profound psychosocial consequences such as anxiety, depression, severe isolation and, tragically, suicide*" (p.801).

Another example of threat to personal space is related to privacy. Freishtat and Sandlin (2010) mention that user privacy is the biggest issue Facebook has confronted that creates the most controversy. Jaffar (2014) reports that using Facebook in education generates negative issues such as distraction that leads to procrastination. In addition, limited expertise in social media may possibly cause discrepancies and conflicts or else confusion for teachers, courses as well as programs (Nosko and Wood, 2011).

In the MIB context, new media can be regarded as 'a double-edged sword' that could either help or be an obstacle to the MIB as they have the potential to undermine Bruneian Malay culture and challenge Islamic beliefs in a way that is not consistent with MIB (Haji Roslan, 2011). The following capture some of the perceived threats to Malay and Islamic elements of MIB presented in the Bruneian media:

> *"Our younger generation today is increasingly exposed to the borderless world of information and it might just easily influence them with various ideologies or beliefs that may seem to be relevant and appropriate in accordance with the current era and thoughts"* (Roslan, 2011)

> *"There is a need to overcome obstacles through various media, especially new media that play such an important role as they could pose a threat and unsettle MIB values"* (Haji Roslan, 2011)

> *"Young people are easily influenced by Western cultures through their exposure to technology and media today, which have opened up cultures from the other side of the world to them"* (Othman, 2011)

> *"Of late, various religious beliefs and other streams of thoughts-traditions that have been widely spread have garnered the attention of the Bruneian community"* (Roslan, 2011)

"With the advancement of technology, many threats have surfaced. Dubious teachings quickly spread through Facebook, Twitter, blogs and WhatsApp. Only those with strong faith and right religious background and knowledge would be spared from this deviant threat" (Othman, 2015)

Freishtat and Sandlin (2010) suggest that Facebook could be seen to be "*opening possibilities for a more democratic society*" (p.515) and cite Zuckerberg (2009a; 2009b) who emphasise that "*everyone [has] a voice to express ideas and initiate change*" in the "*development of the open online world*". This could be construed as a threat to MIB; Brunei as a country which practices MIB in government to some extent could see 'openness' as a threat. The country's objective is to preserve forever Brunei Darussalam as a Malay Islamic Monarchy country which possesses the characteristics of being independent, sovereign and democratic; based on the teachings of Islam; and based on justice, sincerity and freedom (Md Zain, 2013). Although democracy is one of the stated characteristics, Md Zain (2013) points out that different parts of the world nowadays have differences in the practice of democracy. In Brunei, he compares the term 'democratic' through the Islamic viewpoint as the need for the official to have meetings or consultations. This means that in Brunei, people are open to express their ideas, complaints and problems, however through the right medium. Government officials could bring them to the attention of the Legislative Council of Brunei through meetings where citizens and residents are given the opportunity and freedom to express opinions and views. In the political arena, his majesty has emphasized the importance of the meeting concept in running the administrative machinery of the country in accordance with the will and voice of the people, especially in the era of globalization (Md Noor, 2014).

Inappropriate ways of expressing ideas and initiating change such as in social media may lead to incitement, provocation and chaos within the society. Rheingold (2002) in his book *Smart Mobs: The Next Social Revolution*, states that "*bringing down a government without firing a shot was a momentous early eruption of smart mob behaviour*" (p.158). He illustrates that president Joseph Estrada of the Philippines became the first head of state in history to lose power to a smart mob when a group of protesters organized a gathering at the EDSA Shrine via text messaging which was thought to be somewhat responsible for the protest that

overthrew him. Another illustration is the Tunisian Revolution where demonstrators used social media to post photographs and videos on Facebook as well as sending updates to Twitter. They were distributing them to their social friends and this triggered 'a physical response' which influenced others to get involved in the political action (Giglio, 2011).

Therefore, here is the key tension: a tool that should be able to solve the pedagogical problems in the MIB course, social media, at the same time may face cultural obstacles in the path of its acceptance by teachers in this particular setting. The implementation of new technology such as social media in order to solve a pedagogical problem could raise tensions in this specific cultural environment.

Thus, these concerns should be taken into account for the implementation of social media in education. Harris *et al.* (2009) identify that teachers need to understand "*more than the technical aspects of technology, and must understand that technology has affordances and constraints both for representing content and identifying pertinent teaching approaches*" (p.3). This dissertation is therefore a study of matters arising when social media is employed in MIB teaching and how the teachers involved developed the knowledge and practices to make best use of it in ways that overcame these potential contradictions.

To summarize, the key practical issues here are: 1) large lecture classes; 2) lectures needing to be more engaging 3) tutorials 'over-used' - that is, trying to do too many things; 4) cultural homogenization which threatens to diminish or to eliminate local cultures by creating a global culture. These problems more or less reduce the quality, value, or degree of the MIB content (*see Figure 1.1*).

PB1501 MIB Sites of learning
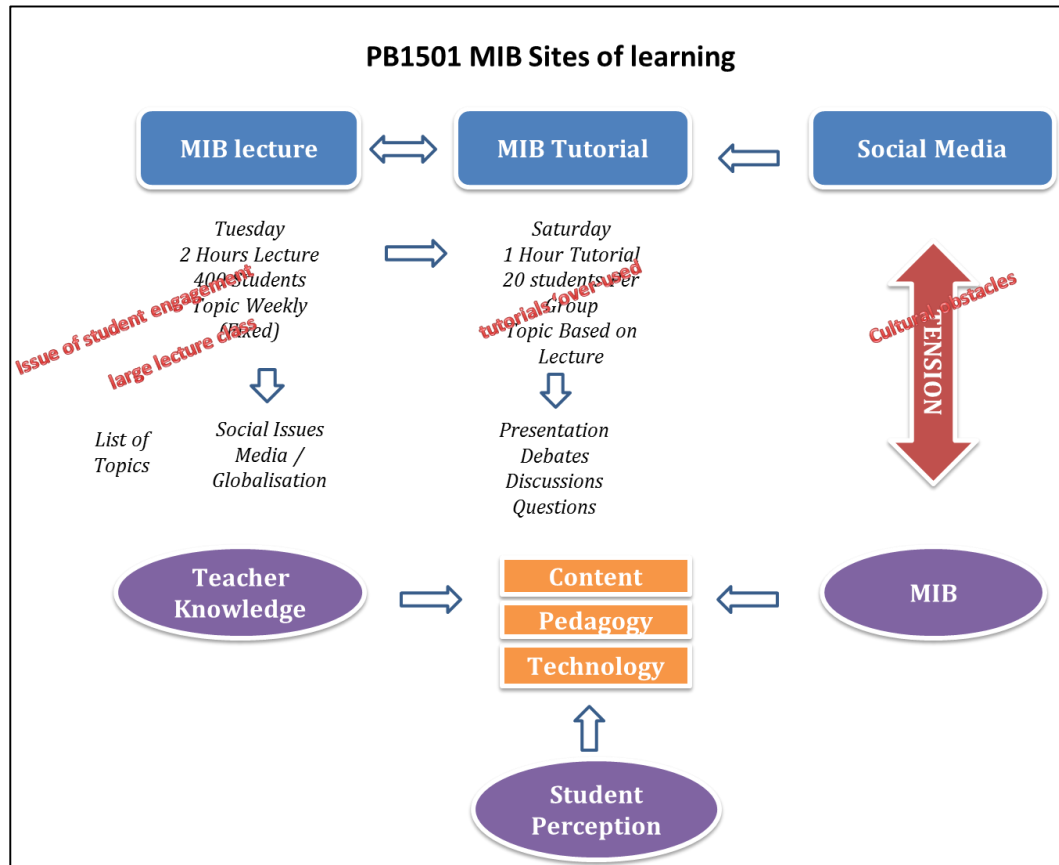
Figure 1.1 MIB Sites of learning

1.5. CONCEPTUAL FRAMEWORK

According to Miles and Huberman (1994, p.18), a conceptual framework can either be visual or written material which discusses what a study entails as well as illustrating the possible connections between the variables. A conceptual framework can take the form of either a narrative or a diagram which shows how aspects of the study are connected. Here, I will frame the concepts of the research, so that I am able to establish a clear rationale of choosing the literature in Chapter 2.

The use of social media can be beneficial to higher education students in the sense that it can be a tool for bringing together a study community. It can also be a medium through which students can find useful learning materials from other students. The rationale is that social media facilitates associations which can be tapped into to create a useful learning community

where students share resources such as learning materials as well as to exchange educational experiences. As has been stated previously, it is hypothesized that social media can help address pedagogical problems and therefore lead to student engagement. Nevertheless, the emphasis of this study is the cultural obstacles that need to be considered in the path of acceptance of social media.

Initial questions such as "What is the perception of students and teachers regarding social media?", "Can social media help resolve pedagogical problems?", "Is there cultural tension in implementing social media such as Facebook in higher education?", are examples of the issues to which this study is attempting to find answers.

Informed by the researcher's motivation and research problems, the goal of the research is to study the introduction of a particular tool (or medium) that is social media, due to a recognition of its pedagogical benefits, that then potentially gives rise to tensions with respect to the content and ethos of the MIB course environment. Teachers must develop knowledge about a tool/medium in order to be able to effectively incorporate it into an environment, but at this point, this knowledge integrating technology is potentially in conflict with other elements of the MIB environment. My research is therefore focused on this tension. In the next section, I will introduce TPACK as a framework which can help reveal how teacher knowledge is not some singular or unified concept, but formed of multiple and possibly conflicting elements. TPACK itself as a framework can help reveal and perhaps resolve these tensions.

1.6. THEORETICAL FRAMEWORK

According to Borgatti (1999), *'a theoretical framework guides our research, determining what things you will measure, and what statistical relationships you will look for'*. Since my study is exploratory, according to Borgatti (1999), '*theoretical frameworks are important in exploratory studies, where we really do not know much about what is going on, and are trying to learn more'.* Furthermore, the introduction of social media into MIB gave rise to previously unanticipated issues and conflicts in the learning environment and the issue of how knowledge about these was developed in teachers. Hence, I perceived the need for an exploratory study

because of the lack of a pre-existing or taken-for-granted theory to explain what was going on in this setting.

Alternative theoretical frameworks were initially considered. After looking at Holistic Approach to Technology Enhanced Learning (HoTel) by Millwood (2013), Conversation Theory by Pask, and Constructivist Theory by bon Glasserfield were identified. Although the study aims to introduce a tool that is social media in order to promote student engagement, however, the real focus is to study and explore teacher knowledge.

Conversation Theory by Pask (1975) offers scientific theory to explain interactions that lead to 'knowing'. However, it only responds to the fundamental idea that learning occurs through conversations about a subject matter which serves to make knowledge explicit. Scott (2001, p.351) elaborates Pask conversation theory as *'the role of the teacher where learner and teacher can be said to be "in conversation" with one another*. Scott (2001, p.353) also mentions that Pask's theory correspondingly refers to learning about "why" as comprehension learning as well as learning about "how" as operation learning and he considers them both as being balancing characteristics of learning effectively. According to Scott (2001, p.353) Pask theory is meant for understanding a topic where *"the learner can "teachback" the topic by providing both non-verbal demonstrations and verbal explanations of "how" and "why""*. Pask's theory has something to say about how teachers develop knowledge through conversation with each other or with students. However, this theory does not better respond to the cultural tensions focus in this study as well as social media usage in education. Furthermore, it is a theory from 1975, which could not possibly have responded to social media usage in education.

In the same way, Von Glasersfeld (1984) in his Constructivist Theory, has the notion that knowledge is not passively received by a learner but actively built up or constructed by the learner. This constructivist theory responds more to how teachers teach and are able to engage students by acknowledging that each student is different and does not learn in the same way. This is to say that if the teacher decides on just one style of teaching (i.e. direct

instruction, collaborative learning, inquiry learning, etc.), the students will not be making best use of their learning potential. Merely underlining the teachers' method of instruction to facilitate and engage students' learning, however, this theory does not respond significantly to technological matters as well as the cultural tensions which are the main focus in this study. In my study, I need to determine how technology comes into play in ways that might be in conflict with the content of the discipline. Additionally, my study puts greater emphasis on how teachers as experts can bring together their deep knowledge of subject matter (MIB) with profound understanding of what is good for learning in the Brunei cultural setting. Hence, what the theory does not really explain is how elements of the learning environment that go beyond content (via technology in this case, and the perceived affordances and impact of that technology) impact upon the "expertise" of the teachers and how this expertise can be developed in ways that (potentially) reconcile the tensions I identified earlier, between the pedagogical usefulness of the technology in this setting, but also the perceived problems it brings to the setting. My key contribution is not an audit of practice on MIB but an understanding of how knowledge is developed about the contradictions between technology, content and pedagogy.

Another two theories that look at the usage of technology in teaching and learning are Technology Acceptance Model (TAM) and Unified Theory of the Acceptance and Use of Technology (UTAUT).

Park (2009, p.151) claims that TAM has been recognized to be a theoretical model in facilitating to clarify and foresee behaviour of the user in regards to information technology. TAM as mentioned by Park (2009) offers a foundation of how external variables affect belief, attitude, and intention to use. He added that there are two cognitive beliefs: 1) perceived usefulness and 2) perceived ease of use. Park (2009) also indicates that in TAM theory, *"one's actual use of a technology system is influenced directly or indirectly by the user's behavioral intentions, attitude, perceived usefulness of the system, and perceived ease of the system"* (p.151). TAM as stated by Park (2009) also suggests that intentionality and actual use through

mediated effects on perceived usefulness and perceived ease of use could be affected by external aspects.

In extended study of TAM theory, Marchewka and Kostiwa (2007, p.94-95) state that Venkatesh, Morris, Davis, and Davis (2003) developed the Unified Theory of Acceptance and Use of Technology (UTAUT) model to associate prior TAM theory. Marchewka and Kostiwa (2007) point out that in the UTAUT model, 'performance expectance' and 'effort expectancy' were applied to fit in the constructs of perceived usefulness and ease of use in the existing TAM study. They also state that the UTAUT model strives to clarify how the differences in an individual impact on the use of technology. More explicitly, they claimed that age, gender, and experience can moderate the association between perceived usefulness, ease of use, and intention to use.

However, TAM and UTAUT are rejected because both theories provide a basis for discovering the perceived beliefs, attitudes and behaviour toward technology usefulness and its ease of use. In this study, my intentions are not merely looking for perceptions, belief and attitude of using technology, but then again my key contribution is an understanding of how knowledge is developed about the contradictions between technology, content and pedagogy that might be in conflict with the MIB content.

Therefore, a way of conceiving the tensions between these issues is provided by the Technological Pedagogical Content Knowledge (TPACK) framework developed by Koehler and Mishra (2009). It is a framework that identifies the knowledge teachers need in order to teach effectively with technology. In this study, TPACK better responds to the three knowledge concepts: pedagogical problems, social media assistance and cultural tension, which become a focus in this study if compared to other frameworks because it addresses the three bodies knowledge as represented by Content Knowledge (MIB Philosophy), Pedagogy Knowledge (MIB education) and Technology Knowledge (Social Media). This aims to show the connections and interactions between the content of MIB, the MIB pedagogy and social media. TPACK will also help to gather the complex findings that explain the interplay of the three

primary forms of teacher knowledge (Koehler & Mishra, 2005): Content Knowledge (CK), Pedagogy Knowledge (PK), and Technology Knowledge (TK). The interactions between and among these three bodies of knowledge are represented as PCK, TCK, TPK. The teacher knowledge framework can be used to understand teachers' decisions with respect to MIB, MIB pedagogy and social media (TPACK) (*see Figure 1.2*).
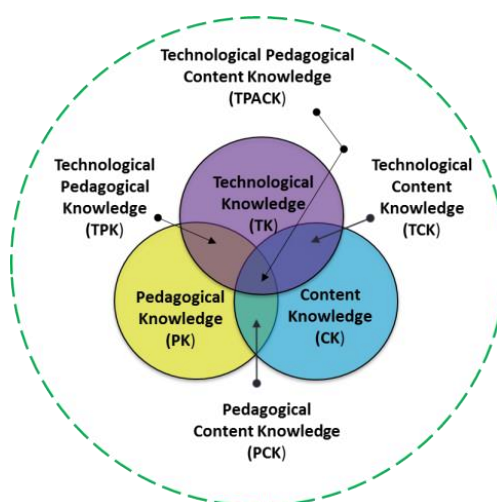
Figure 1.2 The TPACK framework and its knowledge components

Initially then, it can be proposed that the three components of the TPACK model therefore correspond to the three components of teacher knowledge that this thesis needs to explore:

1. Content Knowledge (CK): the MIB culture and philosophy content.

2. Technology Knowledge (TK): the possible technologies which could help in MIB education that includes social media.

3. Pedagogy Knowledge (PK): the methods of teaching the course unit.

Koehler and Mishra's framework implies that all 3 of these types of knowledge come together, and combine into the TPACK in the centre (in which content, pedagogy and technology are all working together, supporting each other). More explanation about TPACK is discussed in Chapter 2 (*see section 2.4*).

Therefore, this study intends to develop teachers' understanding of how a particular technology can help address the pedagogical problem (TPK). However, there is underlying

tension between the technology of social media, and the teachers' understanding of their content (TCK). Ultimately, the aim of this research project is to investigate the ways in which these tensions can be identified and overcome - or at least, incorporated into a design process by which an effective implementation of social media in the MIB course unit can be created. Therefore, I will be conducting a case study of the implementation of social media to solve a pedagogical problem in a cultural environment in which tension may be a defining characteristic.

Another theoretical framework that will assist in the investigation of TPACK in social media environment is known as the Community of Inquiry (CoI). It is used to explore teacher facilitation in a social media setting, the assessment of students' participation as well as the observation of possible tension in an online learning environment. There are three interdependent elements in CoI: (1) social presence, (2) teaching presence and (3) cognitive presence. This framework comes with a template of categories and indicators for coding online transcripts and analysing learning experiences that are facilitated in an online interactional space. Chapter 2 (*see section 2.3*) has provided further clarification regarding this theory.

1.7. RESEARCH QUESTIONS

The research proposed aims to explore how social media might play a role in responding to the contextual constraints of the lecture whilst being mindful of the threats which might result. In order to achieve this, a set of three questions will be examined:

1. How do students perceive social media in the context of its potential challenges to MIB philosophy?
2. How do teachers facilitate engagement in the Facebook setting in the context of the MIB course?
   a. Is there evidence of cognitive and social engagement?
   b. How do teacher practices facilitate such engagement?

3. How do teachers articulate their understanding of social media particularly Facebook in relation to pedagogy, content and technology knowledge and to the tensions which exist in this setting between the different elements, represented by these types of knowledge?

As noted in Chapter 1, this is an under-researched topic so this study seeks to explore this topic and gain some preliminary insights into the key issues to help shape future research. The best way to answer these questions is to gather data directly from the student and teacher population that I seek to understand. Therefore, the data is gathered through questionnaires, observation, content analysis and interviews. These research methods provide responses to all the research questions. Moreover, the participants' data can help guide this research to select a language that is appropriate to "get at" their experiences, about which at this point, I know very little in published literature on cultural perspectives as well as in teaching and learning MIB through social media. These research gaps need to be addressed in understanding cultural context in complementing Facebook in teaching and learning environments especially in the MIB course. Put differently, because there is not much existing scholarship available about this topic that can help shape research questions, I need to be open to learning unexpected information from the research participants.

1.8. OVERVIEW OF STUDY

In this thesis, there are seven chapters as outlined below:

Chapter 1: Introduction

The first chapter provides an overview of the thesis. This introductory chapter hints the development of certain ideas and the background of the study. It presents contextualised information about Brunei national Philosophy that is MIB, descriptive information about each component of Malay, Islam and Monarchy comprised in the philosophy and the structure of MIB Education in Brunei. It also clarifies the researcher's motivation, research problem and rationale for choosing the theoretical framework as well as research questions.

Chapter 2: Literature Review

Chapters 2 gives the theoretical framework of the study that is, Technological Pedagogical Content Knowledge (TPACK) framework developed by Koehler & Mishra. In addition, it also includes debated information concerning social media in educational perspectives.

Chapter 3: Methodology

The third chapter reveals the mixed method approach of the research methodology adopted by this study and outlines the design describing each of the procedures. There are three procedures: Data Collection Procedures, Research Design Procedure and Data Analysis and Interpretation Procedures. Each procedure is followed by list of the processes involved such as managing research instruments, interview techniques and collecting and analysing data. Ethical issues have been addressed in this chapter, in order for the research to be conducted in a professional and ethical manner.

Chapter 4: Students' Perception of Social Media

This chapter presents the results and analysis of questionnaire data beginning by reviewing the descriptive statistics of the data obtained. Responses from the open-ended section from each questionnaire were presented according to themes at the end of each questionnaire analysis. The questionnaire intended to gather students' learning experience and perceptions regarding the use of Facebook in MIB modules as well as their opinion of its cultural impact on MIB philosophy.

Chapter 5: Teacher Facilitation on Student Engagement

This chapter provides a discussion of how teachers facilitate engagement in the Facebook setting in the context of the MIB course. The transcript from the MIB Facebook Group occurring online among students and teachers is used as the major source of data to study educational experience of social media. It is examined, using the content analysis and observation method for analysing and understanding collections of text with the aim of answering the second research question.

Chapter 6: Teacher Articulation

This chapter presents the findings and interpretation of the first and second interview data. The first semi-structured interviews were conducted with the aim of discovering lecturers' perception of social media on MIB and determine their certainty of whether social media can help transform the MIB module. The second phase of interviews is aimed to explore teacher reflections of Facebook in their teaching including explanations to enrich the data from the content analysis reported in Chapter 5.

Chapter 7: Conclusion and Discussion

The final chapter provides a discussion of major findings, with an analysis of the research study.

Chapter 8: Contribution and Future Research

This Chapter discusses the main contribution of this research; Theoretical, Methodological and Professional. Suggestions for future research are outlined along with the study's implication and recommendations.

CHAPTER 2: LITERATURE REVIEW

2.1. INTRODUCTION

The main objective of this review is to gain insight into the potential use of social media in the context of MIB education and particularly into the teacher use of Facebook in the MIB module. The literature review presented in this chapter therefore addresses the interrelated areas of concern relevant to this study. It begins by synthesizing the definition and types of social media and exploring its characteristic as well as critically interrogating related studies as to how social media, particularly Facebook, is being used in order to connect learners and support teachers teaching. The literature review then moves forward to look at the importance of the Community of Inquiry (CoI) Theoretical Framework to measure teacher facilitating engagement in Facebook group space. At this point, the nature of engagement and its dimension are also presented in this chapter. Lastly, the study then outlines the Technological Pedagogical Content Knowledge (TPACK) Framework that has been adopted as the primary analytical theoretical framework of this study and the specific definition of the seven components of the framework will be discussed.

In order to establish the list of literature to be reviewed, I used the following keywords to search the literature: TPACK, Facebook, Social Media, Community of Inquiry and Facebook and Higher Education. To include the disciplines of social studies, education and technology, I used the following databases: SAGE, Google Scholar and JSTOR. I limited my findings to articles, books, book chapters, websites that provided information about one or more of the following:

1.   Social Media.

2.   Facebook and its implementation in higher education.

3.   The Community of Inquiry (CoI) Theoretical Framework and its elements.

4.   TPACK Theoretical Framework and its components.

It is essential to select the above literature in this chapter in order to understand further about this topic. The selected topic for literature review could explore the published literature in relation to three main questions as the heart of the review: "What is the perception of people regarding social media?", "How can Facebook be implemented in higher education?" and "How could TPACK and the CoI theoretical Framework become guidelines to recognize teacher understanding of social media that includes the pedagogical usefulness of the technology in this setting, and also the perceived problems it brings to the setting. This research would be relevant to research/practice/theory in the field because it could add to literature and help to understand the perception, usage and issues of social media in higher education.

2.2. SOCIAL MEDIA

In this section, the detailed accounts of social media definition, types and characteristics as well as related studies on Facebook in Educational Perspectives are discussed.

2.2.1. Social Media Definition, Types and Characteristics

The definition of social media is still a little blurry around the edges. Chan-Olmsted *et al.* (2013, p.151) state that "*there is a lack of agreement on what social media is due to its fast evolving nature and diversity in delivery platforms*". Kaplan and Haenlein (2010, p.60) also posit that there appears to be misunderstanding among managers and academic researchers alike as to what exactly should be incorporated under the term social media.

From a contributory and information sharing characteristic, various authors (e.g. Garrison, 2011; Kietzmann *et al.*, 2011; Chan-Olmsted *et al.,* 2013) reflect the definition of Drury (2008 p.1) who refers to *"online resources that people use to share content: video, photos, images, text, ideas, insight, humor, opinion, gossip, news"*. Kietzmann *et.al* (2011, p.242) remind us that this may be no matter where they are and what they are doing. Safko and Brake (2009, p.6) emphasise the connectivity between users, describing *"activities, practices, and*

behaviors among communities of people who gather online to share information, knowledge, *and opinions using conversational media".* Kietzmann *et al.* (2011, p.245) also go so far as to claim that social media, with the multitude of ways to enhance and increase the information sharing opportunities and options, are the "*future of communication"*.

Giving emphasis to the potential for interactive engagement with other's ideas in social media, Chan-Olmsted *et al.* (2013, p.151) cite Dykeman's (2008, p.1) definition as "*the means for any* *person to: publish digital creative content; provide and obtain real-time feedback via online* *discussions, commentary and evaluations; and incorporate changes or corrections to the* *original content"*. This is compared by Chan-Olmsted *et al.* (2013, p.152) to traditional media, as social media allows people to engage actively in a communication process not only as information receivers but also as message creators.

Thus far I have used the term social media as an overarching categorization and various authors have attempted to describe different types. Kaplan and Haenlein (2010, p.62) propose six different types of Social Media, while Mayfield (2008, p.6) correspondingly cites seven. In what follows, I describe and compare the types of social media, synthesizing these categorisations and identifying unique elements.

1) Kaplan and Haenlein (2010, p.62) state that the first type of social media relates to collaborative projects in which the main underlying idea is that the joint effort of many participants leads to a better outcome than any single participant could achieve individually. As an example of this, they cite Wikipedia and Delicious. Similarly, Mayfield (2008, p.6) describes wikis as one type of social media type, which allows people to add content to or edit the information, resulting in a communal document or database.

2) Kaplan and Haenlein (2010) and Mayfield (2008) agree that blogs are another type of social media, referred to as a journaling tool. Kaplan and Haenlein (2010, p.63) state that blogs are primarily used by one person, but, nevertheless provide the possibility of interaction with others through the addition of comment first.

3) According to Kaplan and Haenlein (2010, p.63), content communities are one type of social media in which the main objective is the distribution of diverse media content; Mayfield (2008, p.6) emphasises that content communities organize and share particular kinds of content. They exemplify sharing photos (e.g. Flickr), videos (e.g. YouTube), bookmarked links (i.e. Delicious) and PowerPoint presentations (e.g. Slideshare) as content communities.

4) Social networking sites are another type of social media as listed by Kaplan and Haenlein (2010, 63) and Mayfield (2008, p.6). Examples are Facebook and MySpace and these are described as allowing users to connect by building personal information profiles, inviting friends and colleagues to have access to those profiles, connecting with friends to share content and communication and sending e-mails and instant messages between each other.

5) Kaplan and Haenlein (2010, p.64) categorise virtual game worlds as a particular type of social media in virtual worlds platforms that replicate a three dimensional environment in which users can appear in the form of personalized avatars and interact with each other as they would in real life, for example World of Warcraft and Sony's EverQuest.

6) Other types of social media as indicated by Kaplan and Haenlein (2010, p.64) are summarized under the label virtual social worlds which allow inhabitants to choose their behaviour more freely and essentially live a virtual life similar to their real life. They provide Second Life application as the most prominent example of virtual social worlds.

7) Mayfield (2008, p.6) chooses to identify podcasts as a specific type of social media in which audio and video files are accessible by subscription through services like Apple iTunes.

8) Mayfield (2008, p.6) further isolates forums as another type of social media as powerful and a popular element of online communities which are used for online discussion on specific topics and interests.

9) Finally, Mayfield (2008, p.6) lists microblogging as the final type of social media in which describe as combination of social networking with bite-sized blogging, where

small amounts of content ('updates') are distributed online and through the mobile phone network such as Twitter.

As Mayfield (2008, p.6) points out, innovation and change are rife, therefore, the list will change across time. However, another way of looking at social media is to focus on the shared characteristics. In what follows are certain characteristics that all types of social media applications fundamentally share.

Mayfield (2008, p.5) suggests there are five specific characteristics that highlight the operations of all social media: participation, openness, conversation, community and connectedness. In what follows, I describe and associate his specification of characteristic with other studies.

1) Participation: Mayfield (2008, p.5) states social media encourages contributions and feedback from everyone who is interested. According to Chan-Olmsted *et al.* (2013, p. 154), *"one of the most distinctive characteristics of social media is its participatory nature that encourages contributions and feedback from everyone who is interested"*.

2) Conversationality: Mayfield (2008, p.5) compares social media to traditional media, where he perceives that social media is better seen as a two-way conversation rather than about 'broadcast' (content transmitted or distributed to an audience). Chan-Olmsted *et al.* (2013, p.154) illustrate that Social Networking Sites (SNSs) like Facebook offer numerous communication components for conversations between users, micro-blogging tools like Twitter and content communities like YouTube have comparatively more limited conversationality or two-way communication because of the core utilities and structures inherent in these social media.

3) Connectedness: As stated by Mayfield (2008, p.5), there are different forms of social media. Most of these permit its users to operate in a platform of interconnectedness which is realized primarily via the provision of links to a wide array of various sites,

persons and resources. Chan-Olmsted *et al.* (2013, p.155) identify that the level of connectedness impacts social wellbeing. A high level of interconnectedness enables the formation of close relationships between people. The creation of social groups is thus a positive consequence of high interconnectedness. On the other hand, a low level of interconnectedness limits the creation of social connections given that it makes a user to become psychologically distant.

4) Community: According to Chan-Olmsted *et al.* (2013, p.156), social media allows communities to identify and communicate with the people whom they want to be associated with. Mayfield (2008, p.5) explains that social media creates an enabling environment for the fashioning of communities. The creation of close links and subsequent relationships makes it fairly easy for people and organizations to forge communities. The bond that glues communities together is the presence of a commonality between the members.

5) Openness: Another characteristic of social media is its openness to user feedback and participation. Mayfield (2008, p.5) sees this evidenced not only in the sharing of information but in users' personal engagement, citing the specific example of voting and commenting. Freishtat and Sandlin (2010, p.512) make an ambitious claim that Facebook envisions interactions between people of different races, cultures, classes and religions, driven by a freedom to determine exchange on what they deem important in their lives. Drury (2008, p.274) also argues that social media allows people to share and engage with each other so that they enable content to be shared - to become more democratized than ever before. On the other hand, there are certain social media platforms, such as Facebook in particular, in which the content is coming increasingly under the control of the provider. Pariser (2011, p.9) in his book '*The Filter Bubble'* claims that Facebook personalisation caters for news that is mostly agreeable, familiar and approves our beliefs that leave less room for the unforeseen encounters that trigger creativity, innovation and the democratic interchange of ideas, and as these filters are invisible, users miss what is being concealed from them.

Pariser (2011, p.7) also identifies that, the initial function as an open platform for the dissemination of ideas leaves users in an insulated sphere initiated under the density of commercial industry.

The above studies show general definitions and descriptions of social media. Explaining intricately, Kaplan and Haenlein (2010, p.61) create a classification scheme in a systematic manner in which they rely on a set of theories in the field of media research (social presence, media richness) and social processes (self-presentation, self-disclosure) which according to them are the two key elements of Social Media. Kaplan and Haenlein (2010, p.61) state that in regards to the media-related component of Social Media, Social Presence Theory developed by Short *et al.* (1976) indicates that different media are characterized by different levels of 'social presence'. Therefore, the quality of communication between two parties is thus determined by the adopted technology. Kaplan and Haenlein (2010) suggest that social presence is determined, to a large extent, by the level of intimacy and immediacy. Intimacy entails interpersonal vs. mediated communication while on the other hand immediacy entails communication that is asynchronous vs. synchronous. The impact of social presence on participants in any communication environment is emphasized: *"the higher the social presence, the larger the social influence that the communication partners have on each other's behavior"* (p.61).

According to Kaplan and Haenlein (2010, p.61), Media Richness Theory (Daft & Lengel, 1986) is based on the supposition that the objective of any conversation is the resolution of ambiguity and the decrease of uncertainty. They explain that the media contrast in the degree of richness they hold - that is, the extent of information they allow to be transferred in a given time interval. Therefore, some media are more effective than others in reducing ambiguity and uncertainty. Applied to the context of Social Media, Kaplan and Haenlein (2010, p.61) conclude with the assumption that a first classification of social media can be made based on the richness of the medium and the degree of social presence it permits. With respect to the social dimension of Social Media, Kaplan and Haenlein (2010, p.62) look into the concept of self-presentation by Goffman (1959) which states that *'in any type of social interaction people have the desire*

to control the impressions other people form of them'. Kaplan and Haenlein (2010) illustrate that social presence is forged in a manner that is in line with the projected rewards from social presence. Therefore, social presence is guided by the principle of consistency of the public image, best exemplified by the wearing of a fashionable outfit. The creation of personal webpages is seen to be a signal of projected presence which is a form of self-disclosure (Kaplan and Haenlein 2010). The term disclosure has been used in reference to both the conscious and unconscious disclosure of otherwise personal information. Considered in relation to social media, there are two dimensions to self-disclosure. The first pertains to the degree of self-disclosure that is permitted by the particular social media in use. The second component is the nature of self-presentation that this permits the user (Kaplan and Haenlein 2010, p.62).

Table 2.1 visualizes the combination of both dimensions that leads to a classification of Social Media. Kaplan and Haenlein (2010, p.62) state that collaborative web technologies, best exemplified by blogs and websites such as Wikipedia, rank the lowest as far as the creation of quality interaction between partners is concerned. Such applications operate on a text platform thereby limiting the degree of exchange that might be realized. Simply put, such applications limit the degree of social presence that might be realized by the communicating parties. As outlined by Kaplan and Haenlein (2010, p.62), quality and effective social networking sites strive to encompass both a text based approach and the sharing of pictures and videos. The highest level as drawn by Kaplan and Haenlein (2010, p.62), is represented by virtual game and social worlds (e.g. World of Warcraft, Second Life), which endeavour to imitate the dimensions of face-to-face exchanges albeit in a virtual setting. Regarding self-presentation and self-disclosure, Kaplan and Haenlein (2010, p.62) claim that *"blogs usually score higher than collaborative projects, as the latter tend to be focused on specific content domains".*

		Social Presence/ Media Richness		
		Low	**Medium**	**High**
Self Presentation/ Self- Disclosure	High	Blogs	Social Networking Sites (e.g. Facebook)	Virtual Social Worlds (e.g. Second Life)
	Low	Collaborative Projects (e.g. Wikipedia)	Content Communities (e.g. YouTube)	Virtual game worlds (e.g. World of Warcraft)

Table 2.1 Classification of Social Media by social presence/media richness and self-presentation/self-disclosure - Source by Kaplan and Haenlein (2010)

In the main, social media can be concluded as being online platforms for interaction, collaboration, and creating/sharing of countless kinds of digital contents in various contexts and environments that confirm it as Web 2.0 which has evolved from an earlier Web 1.0 era. Flew (2008) in his book of New Media described the differences between Web 1.0 and Web 2.0 as a *"move from personal websites to blogs and blog site aggregation, from publishing to participation, from web content as the outcome of large up-front investment to an ongoing and interactive process, and from content management systems to links based on tagging (folksonomy)"* (p.19). According to Idris and Wang (2009, p.247), Facebook is a sample of Web 2.0 tools that was originally intended for the social interaction purpose, but, has great potential for teaching and learning. In a very important sense, I am of the opinion that it is of potential benefit to teaching and learning because of its underlying characteristics such as participation, openness, conversation, community and connectedness.

On the basis of Kaplan and Haenlein's classification, it is to be taken into account that the amount of information to be transmitted and the degree of social presence that social media allows is varied from one communication to another. For example, the impact of social networking sites such as Facebook is higher than blogs with regards to the interpersonal impact of being able to share. Additionally, social media is also a platform that allows the user to promote a desirable degree of self-disclosure and self-presentation in which for instance, social networking sites (e.g. Facebook) have the upper hand over content communities (e.g. YouTube).

As different types of social media have been discussed, my study, in aiming to concentrate on the milieu of lecture and tutorial classes, has implemented Facebook as the primary social

networking site. Since it has been shown to be the most popular among the students, as demonstrated in a baseline questionnaire (*the detail of this questionnaire is discussed in Chapter 3*), Facebook could allow students to form personal information profiles, invite friends and colleagues to participate and share MIB information as well as implementing social connectedness within the Facebook group community. The argument of Facebook in educational perspectives is discussed in the next section.

2.2.2. Related Studies on Facebook in Educational Perspectives

What follows is a consideration of the uses of Facebook in higher education and a discussion of the challenges of Facebook based on discussion of several articles of literature that have some bearing on the issue addressed in the study.

2.2.2.1.   The Use of Facebook in Higher Education

According to Wang (2012, p.64), Facebook has shown its potential to go further than being merely a social networking site for conserving friendship and exchanging information but also a platform that provides support for educational purposes. Woodley and Meredith (2012, p.1) state that Facebook potentially provides great support for students based on the fact that Facebook has had a phenomenal uptake by universities around the world, which indicates that it might engage students in ways that perhaps other platforms do not due to the fact that so many students are already in that particular online space. In a similar vein, Jaffar (2014, p.200) indicates that students are comfortable communicating via social networking sites mainly because a large number are already using one in their personal lives and through the creation of personal profiles students can potentially identify others with similar interests, leading to collaborative learning opportunities.

In the study of examining international students' engagement, Woodley and Meredith (2012, p.1) suggest that Facebook enables students to contribute to and connect with resources, including people who can provide emotional, social and academic support. They state that

students who feel isolated or shy might be the very students who receive greater benefits from Facebook. Their study also indicates that Facebook could well engage and support some students who would otherwise be isolated or disengaged (p.4). A study by Ellison *et al.* (2007, p.1163) in investigating the relationship between use of Facebook and the formation and maintenance of social capital found that Facebook use might be helping to overcome barriers faced by students who have low satisfaction and low self-esteem. Minocha (2009, p.25) likewise advocates the view that Facebook is an excellent tool for improving social cohesion based on her study of Facebook as a pre-induction support tool for the first year BA English Programme students.

Relatedly, Jaffar (2014, p.200) cites Idris and Wang's (2009, p.250) study on the topic of the affordances of Facebook for learning, stating Facebook in an educational setting motivates students' participation, supports innovative learning approaches, presents multimedia materials, and enables students' reflections. In the same vein, Lam (2012, p.378) revealed that Facebook has a significant influence on students learning motivation in that it improves interaction, communication, social relationship, and participation.

Nevertheless, not only students but also teachers could benefit from using Facebook. According to Wang (2012, p.64), Facebook is a platform ready for instructors to use for facilitating mentorship and affiliating teaching. Schwartz (2009, p.4) in his experience interacting with students on Facebook states that teachers could find advantages in using Facebook to build up mentorship with students.

In addition, educational institutions similarly gain advantage from Facebook. Jaffar. (2014, p.200) states that having a Facebook page enables university departments to forge a close interaction with its student population. Wang *et al.* (2012, p. 430) cite Li and Pitts' (2009) report that the use of social media, best exemplified by Facebook, enhanced the level of student satisfaction with regard to the creation of a close student-teacher relationship. Having an online presence via a Facebook page essentially enhanced the extent of virtual office hours. Similarly, Woodley and Meredith (2012, p.2) indicate that students claim that Facebook keeps

them connected with the university. As a result, Wang *et al.* (2012, p. 430) assert that the use of Facebook in the teaching approach has the potential of enhancing the student motivation, classroom climate, satisfaction and the bettering of student-faculty relationship.

Based on the review of literature, Facebook has the positive potential for teaching and learning because of its unique built-in functions that offer pedagogical, social and technological affordances.

2.2.2.2.   Downside of Facebook

As stated by Jaffar (2014, p.200) Facebook use is not detrimental to academic outcome if used effectively in an educational context. However, according to Woodley and Meredith (2012, p.2), Facebook is influencing the education sector not only in a positive way but also in a negative manner. Woodley and Meredith's (2012, p.2) study found that some students are happy to use it for the social aspects of university life such as selling books, attending functions, finding out about extra-curricular activities complained that they were often distracted by Facebook and complained of their addiction to Facebooking. Similarly, Wise *et al.* (2011, p.1332) argue that Facebook lacks the capacity to guarantee positive academic influence in its use in academic circles. Facebook is a potent distracting tool that negates its use in the academic environment.

Minocha (2009, p.26) in her interview with the course director of a BA English Programme that implements Facebook as a support tool found supporting evidence of this potential for distraction. The opinion is that academic content suffers as a result of the use of Facebook as a tool for academic progression. However the role in terms of the more informal and social support was recognized, it being seen rather more *'like a coffee place area'*.

Jaffar (2014, p.200) reporting a study with anatomy students, states that the majority who used Facebook to supplement their traditional classroom, recognised procrastination behaviour on their part and referred to this as a negative impact. Wang (2012, p.71) is also in

agreement as his study on students' perception relating to the use of Facebook found that students are more easily distracted due to the social and entertainment applications provided in Facebook.

The biggest issue Facebook has confronted, as well as the topic creating the most controversy, according to Freishtat and Sandlin (2010, p.515) has been user privacy. Woodley and Meredith (2012, p.2) state that some students as well as some academics have major concerns regarding the privacy and security issues that have been associated with the use of Facebook in the contemporary environment. The commercial use of Facebook in academic circles has the potential of reducing the quality of the academic process. Friesen and Lowe (2012, p.191) state that the controversies that have been associated with Facebook highlight the difficulty in controlling privacy while using this social platform. Newsfeed relays information that ought to have been considered as private. Additionally, Jaffar (2014, p.206) points out that students tend to feel uneasy about their lecturers being able to intrude into their otherwise *'private personal space'*. Jaffar (2014, p.206) cites Smith and Caruso (2010) and specifically their findings of the ECAR study. The study established that students tend to be more focused on fashioning of peer-to-peer interaction for the advancing of academic and social intentions. Students tend to less favour a peer-to-tutor interaction for academic intentions.

From another viewpoint, according to Maranto and Barton (2010, p.37), there are dangers of student/teacher 'friend' relationships on social networking sites, for example exposing teachers' unacceptable Facebook behaviour, such as cursing, making rude gestures or introducing other inappropriate content which is subsequently widely viewed by students.

Therefore, in light of the downside of Facebook, these underlying issues in an educational context need to be considered and addressed if teachers decide on implementing Facebook. However, more studies are needed in order to examine students-teacher interaction and students' engagement, as MIB offers a different and distinctive context for the study of these matters, one in which there exist potential tensions between the medium and the subject matter (as already discussed).

In what follows, I describe and argue the importance of the Community of Inquiry (CoI) Theoretical Framework to measure teacher facilitating engagement in Facebook group space. At this point, the nature of engagement and its dimension is also presented in this chapter.

2.3. COMMUNITY OF INQUIRY THEORETICAL FRAMEWORK

The Community of Inquiry Theoretical Framework has been adopted in this research undertaking to recognize first, teacher facilitation, secondly the assessment of students' participation in Facebook groups, and thirdly observing for possible tension in this learning environment.

In understanding the decision to use this framework, it is worth considering an alternative framework known as Online Collaborative Learning (OCL), also identified as Telecollaboration, According to Redmond and Lock (2006, p.267), the theoretical framework provides a basis where educators can design, develop and implement authentic collaborative educational experiences within local, national or international settings among educational stakeholders. The theoretical framework also supports the creation and sharing of knowledge among educational stakeholders.

According to Harasim (2012, p. 90), this theory provides a model of learning in which students are encouraged and supported to work together to create knowledge. This theory also encourages the learner to be active and engaged. In the OCL theory, the teacher plays a key role not as a fellow-learner, but as the link to the knowledge community, or state of the art in that discipline. This theory focuses on the technology primarily in order to increase and improve communication between teacher and learners and how this could aid the teacher in acting as a link to students' engagement in the state of the art in the discipline of MIB.

As my intention is to look at how teachers facilitate students' participation in the Facebook setting as well as observing for possible tension in this learning environment, this framework

can conceivably assist me to explore this matter. However, the CoI Framework is selected as it has advantages in providing a template of indicators relating to social presence, teaching presence and cognitive presence which can guide me in my assessment of the nature and quality of online learning experience. This template of indicators provided has been useful to code Facebook transcripts in the early stages of my research. CoI Framework is considered more appropriate as it also looks at collaborative processes in a community of learners while being online. Moreover, CoI Framework's specific purposes are facilitating, constructing, and validating understanding, and of developing capability that will lead to further learning. My intention to study how teachers facilitate (teaching presence) students' participation (cognitive presence) in the Facebook setting as well as highlight possible social tensions in this learning environment (social presence), can be facilitated by this framework. Furthermore, the very features of Facebook as a social medium for sharing information and allowing communication and participating in a conversation make it easier to code using CoI framework indicators for studying interactions in this medium. Therefore, while similar in collaborative tenet with the CoI Framework, the OCL framework was not selected as a guideline for analysing Facebook group content analysis because of the latter provided an appropriate coding template for exploration.

For that reasons, in this study, the community of Inquiry (CoI) theoretical Framework is selected to seek explanation of how meaningful learning experiences are facilitated in an online interactional space. Those learning experiences are fashioned through the development of the three interdependent elements: social presence, teaching presence and cognitive presence (*see figure 2.1*).
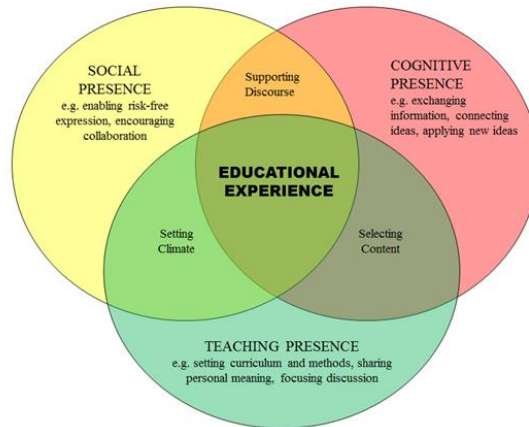
Figure 2.1 Community of Inquiry - Adapted from Garrison and Vaughan (2008)

Garrison (2011, p.23) gives a brief outline of each element as follow:

1) Social Presence: Social presence is the capability of participants to identify with a group, interact purposefully in a trusting environment and develop personal and effective bonds progressively by way of projecting their individual personalities.

2) Cognitive Presence: Cognitive Presence is the degree to which learners are capable to create and confirm meaning through sustained reflection and discourse.

3) Teaching presence: The term teaching presence is a term used in reference to the process of designing, facilitating and directing educational tasks and discussions within a community of learners, laying foundations for cognitive and social engagement. The overall intent of the teaching presence is to create an enabling environment for the realization of the learning outcome goals.

In order for me to identify teacher facilitation and measure students' engagement in Facebook groups, Garrison's (2011, p.25) categories of indicators (*see table 2.2)* are employed as a guide for the Facebook group analysis.

Elements	Categories	Indicators
Social Presence	Personal/affective Open Communication Group Cohesion	Self-Projection /Expressing emotions Learning climate/risk free expression Group Identity/collaboration
Cognitive Presence	Triggering Event Exploration Integration Resolution	Sense of puzzlement Information exchange Connecting Ideas Applying New Ideas
Teaching Presence	Design and Organization Facilitating Discourse Direct Instruction	Setting curriculum and methods Shaping constructive Exchange Focusing and resolving issues

Table 2.2 Community of Inquiry template (Garrison, 2011)

However, to a large degree it is important to define what is engagement and how to measure engagement in Facebook groups. Therefore, in what follows I define students' engagement and then in the next section provide the dimension of engagement.

2.3.1. Defining student engagement

It is notable that on a first level definitions of engagement relate participation to learning effort and outcomes. Trowler, (2010, p.7) indicates that student engagement has been defined by Kuh *et al.* (2007) as "*participation in educationally effective practices, both inside and outside the classroom, which leads to a range of measurable outcomes".* Krause and Coates (2008, p.493 in Towler, 2010, p 7)) emphasise *"the extent to which students are engaging in activities that higher education research has shown to be linked with high-quality learning outcomes".* Hu and Kuh (2001, p.3) highlight "*the quality of effort students themselves devote to educationally purposeful activities that contribute directly to desired outcomes"*.

Newmann (1986) states that students are engaged if they assign significant time and determination to the learning activity they are involved in, taking pains to maintain high quality in their assignments and demonstrating good commitment to their work, appearing thereby *"to have significance beyond its personal instrumental value"(*p. 242). Meanwhile, Chapman (2003, p.2) describes that "*student engagement has been used to depict students' willingness to participate in routine school activities, such as attending classes, submitting required work, and following teachers' directions in class*".

HEFCE (2008) define *"engagement as the procedure whereby institutions and sector bodies create measured efforts to include and empower students in the process of shaping the learning experience"*. On the basis of this definition, social media such as Facebook has the capability of allowing students to shape their own learning experience. Facebook gives students the opportunity of forming personal information profiles, inviting friends and colleagues to participate and share information, presenting and discussing their opinion as well as applying social connectedness within the Facebook group community. Student engagement is defined by Kuh (2009, p. 683) as "*the time and effort students devote to activities that are empirically linked to desired outcomes of college and what institutions do to induce students to participate in these activities"*. Coates (2007, p. 122) describes engagement as "*a broad construct intended to encompass salient academic as well as certain non-academic aspects of the student experience"* which consists of the following:

   a. *"active and collaborative learning;*

   b. *participation in challenging academic activities;*

   c. *formative communication with academic staff;*

   d. *involvement in enriching educational experiences;*

   e. *feeling legitimated and supported by university learning communities"* (Coates 2007, p. 122)

From all these definitions, it can be inferred that engagement is student active collaboration, participation, involvement, devotion and commitment in educationally determined activities. The definition of engagement can be linked to the communicative potential of social media that I explored earlier, for instance in the use of Wikipedia which allows collaborative tasks from the joint effort of many participants' that leads to a better outcome. Another significant example is Facebook in the way it allows users to participate and by being involved as a member of the Facebook group community they can then share documents, opinions and ideas, thereby developing relationships effectively with others who share some commonality with them.

2.3.2. Dimension of engagement

According to Trowler (2010), the concept of engagement is determined by more than mere involvement or participation. Engagement ought to be characterised by some feeling coupled with sense making. Devoid of these two components, engagement will simply be compliance which in turn means the act of being dissociated.

Therefore, Trowler (2010) identifies three dimensions to student engagement:

1. *"Behavioural engagement*

   Students who are behaviourally engaged would typically comply with behavioural norms, such as attendance and involvement, and would demonstrate the absence of disruptive or negative behaviour.

2. *Emotional engagement*

   Students who engage emotionally would experience affective reactions such as interest, enjoyment, or a sense of belonging.

3. *Cognitive engagement*

   Students who engaged cognitively would be invested in their learning, would seek to go beyond the requirements, and would relish challenge" (p. 5).

The three dimensions of engagement are correlated by the Community of Inquiry (CoI) Theoretical Framework of Social Presence and Cognitive Presence. The behavioural and emotional engagement dimension identified by Trowler (2010) is captured in the element of Social Presence provided by Garrison (2011). One of the categories of social presence is Interpersonal Communication, which has three indicators, namely Affective Expression, Self-Disclosure and Use of humour. This could be related to the emotional engagement dimension provided by Trowler (2010) who states that students engage emotionally and experience affective reactions such as interest, enjoyment, or a sense of belonging. Trowler (2010)'s view of behavioural engagement relates to the two categories of social presence that are listed by Garrison (2011) as open communication and cohesive communication. Open

communication indicators are, for example, asking questions, complimenting, expressing appreciation and expressing agreement. Cohesive communication indicators are, for example, using vocatives, addresses or references to the group using inclusive pronouns, using phatics and salutations. These open communication and cohesive communication categories are related to the behavioural engagement of Trowler (2010) in which students who are behaviourally engaged would typically comply with behavioural norms such as their involvement in interacting with other members, giving agreement, showing gratefulness, saying nice things to people, giving greetings and other involvement that is lacking in disruptive or negative behaviour. On the other hand, Cognitive Presence elements described by Garrison (2011, p.24), suggest *"that learners are capable of creating and confirming meaning through sustained reflection and discourse".* Trowler (2010) in turn refers to cognitive engagement which suggests that students who are engaged cognitively would invest in their learning, would seek to go beyond the requirements, and would relish challenge.

Now that the measurement of students' engagement is established, thus teacher teaching presence in order to facilitate students' engagement is also significant to answer the second research question. Teaching Presence elements provided by Garisson (2011) are employed to look at how teachers design the content, facilitate and direct cognitive and social processes. Table 2.3 visualises the importance of the Community of Inquiry (CoI) Theoretical Framework to measure students' engagement with the facilitation of teachers in the Facebook groups.

Garrison (2011) (Community of Inquiry)	Trowler (2010) (Engagement Dimension)	Garrison (2011) (Community of Inquiry)	
Teaching Presence	Behavioural engagement	**Social Presence**	**Engaged students**
	Emotional engagement		
	Cognitive engagement	**Cognitive Presence**	

Table 2.3 Measuring Students' Engagement Model

2.4. TECHNOLOGICAL PEDAGOGICAL CONTENT KNOWLEDGE (TPACK) THEORETICAL FRAMEWORK

If teachers are to be present in the environment - if they are to design the content and facilitate cognitive and social processes, adopting relevant and useful technologies to do so - then it is necessary to explore how they develop the knowledge to do so. This is a core concern of this thesis. As previously identified in Chapter 1, Mishra and Koehler's Technological Pedagogical Content Knowledge (abbreviated TPACK) model of teacher knowledge for effective technology, integration has been adopted as the analytical framework of this thesis. The TPACK framework was proposed in order to guide and examine the nature and interrelationship of technology knowledge (Facebook), content knowledge (MIB) and pedagogical knowledge (teacher methods/practices) and challenges associated within the implementation of social media in MIB education.

According to Mishra and Koehler (2006, p.1020) the basis of the adopted framework is that the teaching process is a complicated undertaking. Its complexity is sourced from the actuality that it is dependent on different levels of knowledge. Therefore, they propose a theoretical framework for understanding teacher knowledge required for effective technology integration. The TPACK framework extends Shulman's (1986) idea of Pedagogical Content Knowledge provides for an explicit technological component and results in the interweaving of technology, pedagogy and content. In line with Mishra and Koehler, Archambault and Barnett (2010, p. 1656) state that TPACK has emerged as one "*unifying conceptual framework*" that combines fundamental dynamics of teaching and learning with technology. Furthermore, Mishra and Koehler (2006, p. 1033) point out that TPACK acts as a beneficial framework for thinking about what knowledge teachers essentially require to integrate technology into teaching and how they might develop this knowledge. The TPACK Framework according to Baran *et al.* (2011, p.370) focuses on the complex interactions between a teacher's knowledge of content (CK), pedagogy (PK), and technology (TK). Baran *et al.* (2011) describe how the combination of technology with pedagogy in a particular subject area must take into account the dynamic intersections between TPK (technological pedagogical knowledge), PCK (pedagogical

content knowledge), and TCK (technological content knowledge). These are explicated in the following sections.

2.4.1. Seven components of TPACK: Koehler and Mishra (2009)

Koehler and Mishra (2009, p.62) have identified seven components in the TPACK framework (*see Figure 2.2*). In this model, there are three main components of teachers' knowledge: content knowledge (CK), pedagogy knowledge (PK) and technology knowledge (TK). Koehler and Mishra (2009, p.63-67) define them as follows:

1. The term Content Knowledge (CK) is a term used in reference to the knowledge regarding the subject matter. The knowledge that is being referenced herein by Shulman (1986) is related to theories, organizational frameworks, ideas and the awareness of approaches critical in the development of this knowledge. In the context of this study, the content to be covered is MIB. Teachers need to master the MIB knowledge, knowing that MIB is not just a subject but it is also national philosophy of Brunei where the content of the module are designed to instil the love for their king, nation and religion as well as to preserve the customs and national culture in line with the MIB concept.

2. The term Pedagogical Knowledge (PK) is used in reference to a teacher's awareness of the methods employed in teaching. Such teaching methods in turn encompass various other elements, best exemplified by values, aims and the educational purpose. In this study this broad understanding of knowledge. Applies to how teachers articulate their practice in terms of facilitating, instructing and designing learning events and conducting student assessment.

3. Technology Knowledge (TK) addresses in particular teacher's knowledge pertaining to exploiting technology and technological resources in their academic context. In this study, teachers' understanding of social media particularly Facebook has to be broad

enough in order to apply it productively at their workplace and in everyday life. Furthermore, teachers should be able to recognize when Facebook can assist or impede the achievement of a goal as well as being able continually to adapt to changes.

However, it is not just these three forms of knowledge (CK, PK and TK) that are discussed in the study, but the interactions between and among these bodies of knowledge which matter. In what follows are the definitions of PCK (pedagogical content knowledge), TCK (technological content knowledge), TPK (technological pedagogical knowledge) and TPACK. Koehler and Mishra (2009) point out that the interactions between and among these bodies of knowledge, are equally important to the model.

4. In line with Shulman (1986) Pedagogical Content Knowledge (PCK) relates to awareness of subject-related pedagogy (Koehler and Mishra, 2009 p.64). In this context, such awareness is aligned to the specific content of MIB and its teaching approach. The development of MIB teaching is thus central to the adopted conceptualization. In other words, teachers are able to apply an 'appropriate' pedagogy in teaching and learning MIB. Specifically, according to Shulman (1986), such development takes place once the teacher selects content, interprets the information contained in this content, identifies means of relaying the information and finds means of relating the information to the students by appealing to prior knowledge. Such an approach fashions an approach conducive for an effective quality learning environment.

5. Technological Content Knowledge (TCK) is defined by Koehler and Mishra (2009, p.65) as the comprehension of the means via which the technology and substance influence and constrain each other. In this study, the application of Facebook in MIB has potential tension. The question of how appropriate it is for teachers adopting Facebook to deliver MIB knowledge is of real concern. Therefore, Koehler and Mishra (2009, p.65) suggest that teachers need to develop a keen understanding of how the

application of a specific technology can impact the delivery of specific teaching content. It is anticipated that there may be some interesting areas for exploration with respect to MIB as content and Facebook as social media tool within that content delivery.

6. Technological Pedagogical Knowledge (TPK) is concerned with the comprehension of the different impacts that different technologies would have on the particularities of teaching and learning experience (Koehler & Mishra, 2009, p.65). In this study, an understanding of how lecture and tutorial classes can be complemented with the use of Facebook in the aim to overcome the issue of engagement for larger lecture class and overused tutorial. Thus, as stated by Koehler and Mishra (2009, p.65) teachers need be aware of the affordances and constraints that are associated with the range of potential technological tools. In the end, effective designs and strategies will be fashioned as a result of this enhanced awareness.

7. Technological Pedagogical Content Knowledge (TPACK) according to Koehler and Mishra (2009, p.66) is the product of a forging of quality and effective teaching skills with technology. It forms the foundation of the quality teaching that requires a deep comprehension of the approaches to the inculcation of technology into the teaching process. TPACK also requires the appreciation of the techniques that guide on the use of technology in rather academically constructive means in the teaching of content. In addition to this, it calls for knowledge on how to best employ the use of technology in alleviating the problems that are faced by the students. TPACK is also concerned with the comprehension of the epistemology knowledge that guides on the use of technology and current knowledge to better fashion an environment for the building of future knowledge. Aside from the building of new knowledge, the uses of technologies to better enhance the current knowledge.

In this study perspective, TPACK is about teachers' knowledge in understanding of how students learn and engage in Facebook groups settings (TPK). It is not just about knowing

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both pedagogy and content, but being able to apply an 'appropriate' pedagogy which is an issue which may vary as the content varies (PCK). There are also potential tensions within MIB teaching (TCK). The discussion in section 2.2 above shows Facebook's 'potential' application in this learning environment (TK) but it is the question of 'appropriateness' (TCK) which is of real concern. All this can lead forward to the eventual presentation of PK as a bridging device within TCK.
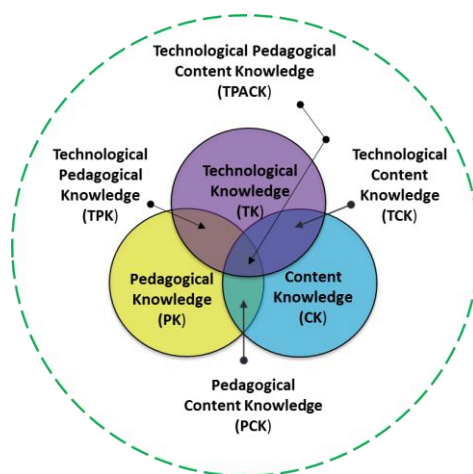
Figure 2.2 The components of the TPACK framework

In order to be clearer of categorizing the component of TPACK, further properties of each component of TPACK Framework is outline by Cox and Graham (2009).

2.4.2. Elaborated model of the TPACK Framework: Cox and Graham (2009)

As seen in the preceding section, Mishra and Koehler amongst others have strived to offer explanations of PCK, TCK, TPK, and TPACK to enable teacher understanding of technology use in education to be explicated. The focus has been on the constructs that form the core of these definitions. However, the distinctions that exist are still quite blurry thereby making it quite intricate to classify borderline cases. Cox and Graham (2009, p. 60) help clarify these boundaries and facilitate study of TPACK in practice. They create a succinct definition by outlining additional qualities whose usage has yet to be specified.

1) Pedagogical Knowledge (PK): Cox and Graham, (2009 p. 63) simplify pedagogical knowledge as a teacher's knowledge of the general pedagogical activities that the teacher might utilize in their teaching such as motivating students, interacting with students, presenting students with information and classroom management. In this category Cox and Graham, (2009) also factor in the universal activities that are applicable in the content domains best exemplified by problem-based learning, discovery learning and cooperative learning.

2) Content Knowledge (CK): As has been indicated by Cox and Graham, (2009 p. 63), content knowledge is a knowledge in a given subject area and this knowledge is independent of pedagogical procedures or how individual might use those representations to teach.

3) Technological Knowledge (TK): Technological knowledge is defined by Cox and Graham, (2009 p. 63), as knowledge on how to use emerging technologies since there are technologies that are not yet apparent. Veletsianos' (2010, p.11) cited the Horizon report 2004-2008 (http://www.nmc.org/horizon), which defines emerging technologies as technologies that have not yet been broadly accepted and are anticipated to impact a diversity of educational association surrounded by a time span of one to five years. Veletsianos (2010, p.11) also emphasized that *'uncertainty'* is a significant characteristic of emerging technologies that is in regards *to "a) the magnitude and importance of the expected impact and b) whether these technologies will actually have an impact"*. Veletsianos (2010, p.11) studied that as in the case with the Horizon reports, BECTA (2006) emphasizes the possibility of the near future impact where emerging technologies influence the way we work and interact. From the definition by Veletsianos, I can relate that social media is a new tool to be adopted and it can still count as emerging as it influenced the way teachers and students work and communicate and is still being adapted in some educational sectors and fitted to educational purposes although there is uncertainty of its future impact.

4) Pedagogical Content Knowledge (PCK): Cox and Graham, (2009 p. 63) state that PCK is the adherence to the content specific pedagogical activities. PCK is found in a specific subject discipline. According to Cox and Graham, (2009 p. 63), pedagogical content knowledge includes teacher knowledge of how well particular activities will work to help students understand a particular concept and how they might be used as part of the teaching activities to promote student learning.

5) Technological Content Knowledge (TCK): Cox and Graham, (2009 p. 64) define TCK as *"a knowledge of the topic-specific representations in a given content domain that utilize emerging technologie"'*. Cox and Graham, (2009 p. 64) state that the most applied and pervasive form of TCK for teachers' knowledge is how to represent concepts by means of technology. They add that the knowledge of these representations exists independent of knowledge about their use in a pedagogical context and if the technologies used in the representations turn out to be mainstream, that knowledge changes into content knowledge.

6) Technological Pedagogical Knowledge (TPK): Cox and Graham, (2009 p. 64) define TPK *"as a knowledge of the general pedagogical activities that a teacher can engage in using emerging technologies"*. Therefore, in TPK they take account of knowledge of how to encourage students using technology or how to engage students in cooperative learning by means of technology. As specify by Cox and Graham, (2009 p. 64) as the technologies being used come to be transparent or ubiquitous, TPK converts into pedagogical knowledge as the importance on the technology is no longer necessary. They illustrate that examples of using interactive boards for universal pedagogical intentions should be regarded TPK as they are not yet ubiquitous in the classroom while understanding of how to best employ the long-established whiteboard for similar outcomes is PK as its use in teaching is at the present mainstream.

7) Technological Pedagogical Content Knowledge (TPACK): Cox and Graham, (2009 p. 64) suggest that TPACK is generally associated with the interactions of specific technologies in the teaching process. It is the teacher's knowledge that makes it possible to realize a subject-specific approach in the teaching process. Therefore, the topic-specific approach endeavours to forge a quality interaction between the emerging technologies and the student learning environment. TPACK is then altered to PCK in an environment of ubiquity emanating from the interaction between the learning environment and technologies. They emphasize that the need for TPACK will always be present as long as new technologies are being invented as subsequently they will be used in the learning environment in a ubiquitous manner. The TPACK framework may no longer be essential as soon as technologies are generally acknowledged.

The definition by Cox and Graham (2009) has helped deliver some clarity to the TPACK framework in order to understand its complexity. It is important to compare TPACK by Mishra and Koehler and acknowledge these new elaborated definitions by Cox and Graham to conduct in-depth research study with the MIB teachers. It is also significant to specify that these elements of TPACK are not necessarily in harmony with each other, that the development of TK, for instance, might come at the expense of its integration with CK or PK. My study will be able to enhance an understanding of TPACK. Research is useful in improving understanding about TPACK as for example, Angeli and Valanides' (2009) paper where they raised and discussed a number of epistemological issues concerning the construct of TPACK for the purpose of clarifying it (i.e. teachers' beliefs about how students learn, contextual knowledge of school expectations and values, practical classroom knowledge) and, subsequently, presented ICT–TPCK as a strand of TPACK and suggested models for its development and assessment. This supports the suggestion that the original contribution of my thesis is the insight it gives into the ways that TPACK can be applied to real settings. I am not just using TPACK as a tool for an audit of practice, but I am increasing the general level of understanding of what it is, of how its elements interrelate and may be in tension with each other, through an investigation of it in a particular setting.

2.5. CONCLUSION

It can be concluded that social media comprises of diverse applications with different main functions configurations and characteristics. The most prevalent and high profile social media is Social Network Sites (SNSs), for example Facebook that has proved its ability to assist education through numbers of studies which show its benefits in education but then again at the same time has its own drawback if it is not used effectively in an educational context. Furthermore, there are obstacles to the MIB that need to be taken into account, as has been discussed previously in the research problem of Chapter 1 in which I posited that social media such as Facebook has the potential to drown and influence Bruneian Malay cultures and Islamic beliefs in a way that is not consistent with MIB philosophy. Hence, this highlights how the specific issues arising in this context can illuminate something about TPACK, thus making my thesis an original contribution.

Although the past and current studies analysed in this chapter have shed light on certain aspect of integrating Facebook in higher education which explicitly examines to what extent Facebook could help overcome the lack of engagement, there is still a need for further research, because, in particular, most studies conducted provide pedagogical, social and technological perspective of Facebook. However, little can be discovered literature in cultural perspective. This research gaps need to be addressed in understanding cultural context in complementing Facebook in teaching and learning environments.

To get an accurate picture of teachers' knowledge, Community of Inquiry Theoretical Framework will assist to measure engaging learning experience by observing three interdependent elements – social presence, cognitive presence and teaching presence in the Facebook group activities. The TPACK Framework that is the teacher knowledge framework, will look at the overall findings which act as a useful framework for discerning what knowledge teachers must have to integrate technology into teaching and how they might develop this knowledge. The Framework is anticipated to help teachers distinguish the distinctive and interactive roles that are played by pedagogy, technology and content in the fashioning of

effective and quality environments for learning. The framework recommends the contemplation of a knowledge type that goes beyond the three tenets that have been given mention herein (Mishra & Koehler, 2006, p. 1028).

Therefore, the teacher knowledge Framework which is known as TPACK Framework could help determine teachers' decisions with respect to three bodies of knowledge, namely MIB module/philosophy, MIB pedagogy and Social Media/Facebook.

CHAPTER 3: METHODOLOGY

3.1. INTRODUCTION

Building on Chapter 2's review of situating the literature and identification of gaps therein, that is to say an understanding of how teachers can develop knowledge about a setting in which the elements of TPACK are not necessarily harmoniously related, and an exploration of conceptual frameworks and location of the study within the field, Chapter 3 describes the methodology that underpins this investigation. It begins by restating the research questions, and presents a rationale for the choice of a qualitative research design. This is followed by a discussion of the various methods of data collection used, and the analytical procedure employed.

3.2. RESEARCH DESIGN

The research design in this study refers to the overall approach that I decide on to integrate in a coherent and logical manner, thereby, making certain that I will effectively address the research questions. This section constitutes the blueprint research methodology and research approach.

3.2.1. Research Methodology (Theoretical Perspective)

According to Hesse-Biber and Leavy, (2011, p.5), it is possible to identify three major methodological approaches which researchers can use in qualitative research. These approaches comprise the (1) post-positivist, (2) interpretive, and (3) critical. The authors defined post-positivism as suggesting that the social world is patterned and that causal relationships can be revealed and confirmed via trustworthy approaches. While the interpretive paradigm according to them, assumes the social world is continuously being constructed through group communications, and for that reason, social reality can be understood by means of the standpoints of social actors enmeshed in meaning-making

undertakings. On the other hand, they make the distinction that critical perspectives also view social reality as a continuing construction but go further to suggest that discourses created in shifting fields of social power shape social reality and our study of it.

In my study, I need to develop knowledge about the new area of concern. That is, how my study is focused on the knowledge teachers are developing about the application of technology (social media) in educational setting, and also the tensions which arise. With this conviction, my study is interpretive. These understandings are continuously being constructed as the course teaching plays out.

According to Shepard *et. al* (1993, pg.92), interpretive paradigm intention is to gather a wide variety of data that can describe, explain, or interpret the human behaviours or physical phenomena under study. They added that the data collected are predominantly qualitative (words) and said that the interpretive main data-collection instrument is the researcher "*who observes, interviews, listens, and records data on spontaneous behaviours*". To achieve this, in my study, mixed method research will be taken.

The use of mixed method is enshrined in the discussions developed by Trochim (2006). He maintained that it emphasizes the importance of multiple measures because no one is capable of seeing the world perfectly as it really is. Individuals cannot see the world perfectly as it is because we are biased towards our opinions, thus affecting our observations of the social world. The use of multiple perspectives does not offer an absolute guarantee on objectivity, but the process provides more assurance on the results than using a single method.

Additionally, the integration of quantitative analysis and qualitative interpretation brings the appropriate reflection of the social realities, thus facilitating a better understanding of the phenomena under study.

3.2.2. Research Approach

Hesse-Biber and Leavy (2011, p.5), also identify two primary approaches which support the usage of theory. These approaches include deductive and inductive approaches. A deductive approach is enshrined in the post-positivism paradigm because it tests theories against data while an inductive approach is enshrined in the interpretive paradigm because it generates theories from the available preliminary information.

In this study, I adopt the TPACK framework and look for evidence that teachers are developing knowledge in specific ways. Whilst the TPACK framework is guiding my inquiry, however I recognise that it is provisional and open to revision based on what I find in the environment. The teaching environment I am investigating was not engineered in the light of existing theory-rather it has been developed in an ad hoc way, and I am conducting an investigation of it to (re-)generate a theory of teacher knowledge in a setting where there may be tensions between pedagogy, content and technology.

Hesse-Biber and Leavy (2011, p.9) state that qualitative approaches to research typically use qualitative "inductive" methods which means that research study normally begins with the accumulation of specific data, the analysis of which leads to a more general understanding of the topic. Therefore, they state that guiding research questions are generally open-ended, allowing for a multiplicity of findings to emerge. In my study, I am applying multi research techniques to collect and analyse data such as survey, interviews, content analysis and observation, combining the qualitative and quantitative approaches which are applicable to an interpretive approach.

Taking into account that this study is investigation to (re-)generate a theory of teacher knowledge and also using qualitative multi research techniques to gather data, therefore, I am applying an inductive approach in this study.

3.2.1. Case Study

As noted in the first chapter, the issues of overused tutorials and the issues of students' varied levels of engagement gave me the idea of using new emerging technology such as social media to help overcome this problem. Therefore, I decided to conduct research in this area with the hope that it could contribute to the improvement of MIB teaching and learning in higher education. This is an under researched topic so our study seeks to explore this topic and gain some preliminary insights into the key issues to help shape future research. The previously mentioned shortcomings of literature from a cultural perspective also provide a need for further exploration within this study. More significantly, the purpose of this research project is to investigate the ways in which these tensions can be identified and overcome - or at least, incorporated into a design process by which an effective implementation of social media in the MIB course unit can be created. Hence, I will be conducting a case study of the application of social media to elucidate a pedagogical problem in a cultural environment in which tension may be a defining characteristic

Hyde (2000, p.853) defines a case study as an in-depth analysis of a situation with the aim of explaining a phenomenon. Bonoma (1985) states that qualitative methods dig deeper into events or behaviours of people to establish logical conclusions.

The justification for applying case study approach rather than other study approaches, such as action research is because the purpose of action research is to take action, resulting in change, and transforming thinking (Riel, 2010). This kind of approach contrasts with my purpose of research, which is more to explore and investigate the under- researched study. Moreover, in this study, I took a role as an 'observer as participant', not as an individual who was working with others that involves actively participating in order to change a situation. During the observation, I did not try to communicate, so that I did not influence what was happening. The benefit was that I had significant scope for recording, objectivity and interpretation. Cohen *et al.* (2000) explained that the term 'observer-as-participant' means that

a researcher has less extensive interaction with the research group. Therefore, this is one of the reasons action research was rejected in this study.

Another justification is that according to Yin (1994), case study is the preferred and appropriate research approach when ``how'' or ``why'' questions are being posed - in other words, questions of process. This statement corresponds with my research questions that posed questions that start with 'how'. Therefore, a case study approach is appropriate for this research because it provides detailed qualitative information. It is also appropriate because it provides insights into the situation under investigation, thus facilitating the possibility of further research.

3.2.2. Exploratory Research

Hesse-Biber and Leavy (2011, p.10) state that there are three primary research purposes in qualitative research: (1) exploratory, (2) descriptive, and (3) explanatory. They claim that exploratory research seeks to investigate an area that has been under-researched. In most cases, exploratory research provides preliminary data which can be used to develop hypotheses and influence future studies. Descriptive research seeks to designate the aspect of social reality under study. Qualitative researchers conducting descriptive research are typically looking for what Geertz (1973) term "thick descriptions" of social life from the viewpoint of those being studied. Explanatory research aims to clarify social phenomena and the relationship amongst diverse components of a topic. This kind of research addresses the "why" of social life.

Based on this literature, my research is geared more to exploratory research. The first reason is because I seek to investigate the under-researched study especially as my research addresses the 'how' questions. Secondly, the main priority of the strand of my research is qualitative emphasis which firmly makes this study interpretive. Thirdly, as explained earlier this study is inductive in that it generates theories from the available preliminary information.

Finally, I am conducting a case study and according to McLeod (2008) case study is frequently used in exploratory research as it can assist researchers produce new ideas.

This research design starts with the collection and analysis of quantitative and qualitative data of Survey, which has the priority of addressing students' perception in the first study's questions. This survey method prioritizes more analysis of qualitative data than quantitative. This is then followed by the subsequent collection and analysis of qualitative data from the first interviews. The next phase is concerned with the collection and analysis of quantitative and qualitative data of the Facebook group. The final phase is the collection and analysis of the second qualitative interviews. I am then in a position to interpret how the quantitative and qualitative results relate to one another.

3.2.3. Mixed Methods Research

Informed by the research questions, research paradigm and research approach discussed earlier, a mixed methods approach has been selected for this study. A mixed methods procedure is a combination of quantitative and qualitative research approaches. According to Johnson and Onwuegbuzie (1973, p.17) the term mixed methodological approach is used in reference to the act of employing both qualitative and quantitative research methodologies and forging the product to work in a single research undertaking.

The significance of using mix methods firstly in my research is because I have different research questions. Each research question refers to the argument that quantitative and qualitative research can each answer different research questions. Another reason is the desire for 'completeness', where I can bring together a more comprehensive account of the area of inquiry. Additionally, quantitative and qualitative research might be combined to triangulate findings in order that they may be mutually corroborated. This coincides with Johnson and Onwuegbuzie (1973, p.22) who claim that a mixed methods approach allows (a) triangulation, seeking convergence and corroboration of results from different methods; (b) complementarity, augmenting and elucidating results attributed to one design with results

sourced from a different design; (c) initiation, determining contradictions that culminate in a re-design of the research question; (d) development, employing the findings attributed to one method to give insight into formulating the second; and (e) expansion, endeavouring to develop the breadth and array of research by employing diverse designs for diverse inquiry components.

A different intention of using mixed method is 'offset', because according to Bryman (2006), research that associates both qualitative and quantitative approaches reveals their relative strengths and weaknesses, so that joining them allows the researcher to offset their weaknesses to draw on the strength of both. The strength of one method cancels out the weaknesses of the other thus ensuring that the process achieves a high level of objective reality.

Furthermore, the need for an incorporation of both qualitative and quantitative research approaches in the study of diverse social phenomenon has received the support of a growing number of researchers whose work has its source in the different fields of behavioural and social science (Collins *et al.*, 2007, p.267). Johnson and Onwuegbuzie (1973, p.17) say that a mixed methodological approach offers a sort of 'third wave' or third research movement by creating a logical and practical alternative.

Therefore, in my study, closed ended questionnaire and a quantitative exploration of usage of teaching and learning via Facebook are employed for quantitative research approach. While for a qualitative approach, I am using multiple methods such as asking open ended questions in a questionnaire, conducting observation of Facebook and Content Analysis of Facebook Transcripts in addition to undertaking interviews. According to Hyde (2000, p.853), a case study warrants the usage of multiple qualitative methods, towards facilitating the research process.

In order to gain an insight into the questions I want to answer, I employed a sequential exploratory mixed methods research design. To draw out the tensions that exist between the

different forms of teacher knowledge, the qualitative component of this study was carried out from interviews, content analysis and observations. The purpose was to get knowledge that had not been explored in previous research regarding the tensions that arise and explored from teachers' perspectives. For example, the qualitative data in the first interviews, could reveal teachers' concern in respect of issues concerning social media usage in MIB education. The quantitative closed ended questions that were also asked in the survey of students and teachers are used to take a broad view of the findings from the quantitative component. Quantitative data from text data analysis such as counting weekly activities (i.e. clicking likes, sharing information etc.) could also help in identifying how active teachers and students in each Facebook group interact and participate. This quantitative data is followed up with a qualitative component in observation of the Facebook group and a second interview in order to ensure that there are relationships between the quantitative and qualitative research results and also for the purpose of checking for validity. The quantitative data in content analysis could also discover the pattern of students' participation. This quantitative finding could be linked to a second qualitative interview, about why students' participation patterned in a certain way in the Facebook activities. In essence, the qualitative findings reveal the reason for the students' participation pattern that has been discovered in quantitative findings. The qualitative findings for example from interviews could also reveal how this new emerging technology has the capability to solve pedagogical problems in the MIB course and based on the qualitative findings from observation and content analysis could similarly discover how Facebook could enhance communication among teachers and students. All phases of data collection and analysis could provide certain divergent findings as well as new knowledge not represented in the other phase.

In what follows, I will present related studies that employ mixed methods research in the study of social media such as Facebook in education.

3.2.4. Using Mixed Methods in Social Media Study

This research explores a new educational terrain, namely that of employing Facebook in the MIB module and thus in a setting in which there are inherent tensions between pedagogy, content and technology. It investigates teachers' facilitation of engaging students via Facebook in the context of the MIB course through observation of the Facebook group and content analysis of the Facebook group transcript. This study also delves into teachers articulating their understanding of Facebook in relation to pedagogy, content and technology knowledge via qualitative interview. The qualitative methods are supplemented with a questionnaire to systematically identify students' perception of social media in the context of the MIB education and its potential challenges to MIB philosophy. The findings can corroborate and moreover expand my understanding in order to fully explore issues relating to the research area and relate them to the TPACK Framework.

Furthermore, investigating the literature on implementing social media in education, I noticed that in the area of studies of social media, both quantitative and qualitative research designs are implemented. For example, a study by Baran (2010) collected data using a questionnaire and complemented it with face-to-face interviews to verify or expand on its responses. Such an undertaking was hinged on the need to gauge the degree to which students understand the academic application of Facebook in their learning environments. I, myself, also need to look at how students develop knowledge about technology possibly independently and how teachers do so. This is a rationalisation for the mixed methods that I am applying (i.e. interviews, survey, content analysis, observation). The point is not only to justify that these methods are generally useful in research, but also how they are specifically useful to me, in the study that I am setting out to undertake.

Barden (2012) implemented a combination of methods such as participant observation, student interviews, classroom video recordings, screen capture of students' online and offline interactions in Facebook and protocol analysis to gain insight into the participants' literacy practices and ultimately reveal the pedagogical principles their practices evoked. Almost

similar combination of methods is used in my study. In order to gain insight regarding teachers' knowledge about how MIB pedagogical practices is used in Facebook (TPK), I applied interviews, observation and content analysis of the Facebook group. This could brought together the course of learning MIB (PK) and at the same time recognising the tensions (CK).

A study by Wong *et al.* (2011) which was to investigate the learning process in Facebook used a mixed approach where quantitative data was availed primarily via the number of messages coupled with the comments that were posted on the Facebook page by the students. On the other hand, qualitative data was availed primarily via a student group interview that endeavoured to investigate the experiences of students when using Facebook both as a communication and collaborative tool. At the end of the semester, Wong *et al.* (2011) distributed questionnaires to all the students to investigate students' opinions on the role of Facebook in their project.

Considering the literature on the methods used in studying areas of social media in addition to taking into account this study's research questions, I accepted the mixed methods approach as the precise format for this research design. It is for the reason that my study aims to seek convergence (i.e. content analysis and observation), pursue elaboration (i.e. second interview) and using the findings from one method (i.e. questionnaires) to help inform the other method. A single-method study is not going to generate the data of how teachers develop knowledge in this study. According to Pamuk *et al.* (2013, p.4), "*teaching with technology for a given content matter is complex and multi-dimensional".* Koehler *et al.* (2007, p.743) indicate that it necessitates *"understanding the representation and formulation of concepts using technologies",* "*pedagogical techniques that utilize technologies in constructive ways to teach content*", and *"an understanding of how technologies can be utilized to build on existing knowledge and to develop new or strengthen old epistemologies".*

Therefore, a fairly rich description of a narrative process is required from the research subjects, since this data unfolds over a period of time, precluding the use of a single 'snapshot' of the data, which would be inadequate. Thus, the methods need to allow for comparison. In

addition, the fact that Facebook allows practice itself to be studied and not just perception of that practice, therefore, content analysis is duty-bound to come into play. With this combination of methods, inherent tensions between pedagogy, content and technology could be explored. Findings from a combination of multiple methods could give guidance to teachers as to whether Facebook is best suited for addressing MIB teaching and learning while taking into account the possible tension that might exist (TPACK).

3.3. RESEARCH METHODS OF DATA COLLECTION

Hesse-Biber and Leavy (2011, p.5) explain the significance of research methods to a research process. They maintain that researchers use research methods to collect data during research processes. In a different report, Harding (1987, p.2) explains that a research method is a technique for gathering evidence by listening to the responses of participants, observing peoples' behaviours, and undertaking analysis of historical traces and records. This research applies four research methods including questionnaires, content analysis, observation and interview.

A questionnaire is chosen in view of the fact that it is the most appropriate and effective way of contacting the largest number of potential respondents. Furthermore, the statistical data that emerges from the questionnaire will be helpful in searching for possible relationships and patterns by expressing the results in numerical form. Moreover, it is a simple way for the reader to understand the results.

Content analysis and observation are both chosen as methods employed in observing, identifying and quantifying certain activities in Facebook groups. These two methods help me to explore quantitatively and qualitatively students' and teachers' postings, comments, likes, photos and videos sharing as well as files sharing with the purpose of understanding the contextual use of Facebook group features and teachers' facilitation of students in teaching and learning MIB.

Initially, it was thought that using focus groups would be beneficial in this study because it facilitates the development of themes. It was also thought to be appropriate because it helps researchers to gather data which includes the attitudes, values and opinions of the respondents. It also focuses on the opinions of a group of people rather than an individual, thus ensuring that the data is highly reliable (Cohen *et al.*, 2000 p. 376).

However, focus group interview techniques were later rejected in this study because the participants who agreed to join have different commitment, for example Ariffin and Liza were no longer working at the University which made it difficult to find a time that was suitable for everybody. Furthermore, in this study I need to acquire 'original' answers from the participants without feeling under pressure to agree with the dominant view. Acocella (2012, p.1125) explained that the presence of other people can influence the opinions of some people within the group, thus limiting the autonomy of opinion. People with dominant characters in the group are likely to push others towards expressing more socially desirable and stereotypical answers. Consequently the data collected from focus groups are likely to be subjected to bias, thus compromising the level of objective reality of the study process.

Since MIB issues are something that is considered a sensitive topic, the need to collect the data individually is essential. In the book *'Using focus group in research,'* Litoselliti (2003, p. 29) stated that *"a researcher should anticipate that group members will often try to rationalize their behavior and obscure sensitive issue."* She also explained that some participants have the tendencies to take positions which are influenced by the presence of others in the group, and will most likely be selective regarding the answers they provide.

Therefore, having this issue in mind, I chose individual interviews which I believe more appropriate in this kind of study.

To answer the first research question, a questionnaire was distributed to students in Semester 1 taking the PB1501 MIB module in the 2012/2013 session. The findings could gather

students' learning experience and their opinion of the potential challenges of social media in the context of the MIB course.

To answer the second question, observation of the Facebook group and content analysis of the MIB Facebook group transcript methods are implemented. The observation and text data analysis could demonstrate that MIB Facebook groups' space is used to share a variety of information between students outside the classroom in order to complement the delivery of MIB content in lectures and tutorial classes. This method could also produce data of student social and cognitive activities and teachers' teaching undertakings in promoting and facilitating student engagement.

To answer the third research question, I conducted interviews of teachers. The first interview was aiming to discover teachers' perception of social media particularly Facebook (TK) and also to learn effective ways in using social media in higher education (TPK) as well as determine their certainty of whether social media could help transform the MIB module (TCK). The second interview could discover teachers' full insight into different facets of the use of social media in teaching and learning MIB in higher education (TPK), including an evaluation of the risks involved and the best means of harnessing its strengths for use in MIB education (TPK), whilst at the same time not contravening the MIB values context (TCK). These instruments will now be detailed as summarized in Table 3.1:

Question	Qualitative Analysis	Quantitative Analysis
1. How do students perceive social media in the context of its potential challenges to MIB philosophy?	Qualitative Description of open-ended questions Description of students opinion potential challenges of social media in the context of the MIB course and link to TPACK Koehler and Mishra	Descriptive Statistics of close-ended questions • Statistical analysis using SPSS to see overall findings of those students and describe data through statistics and graphs.
2. How do teachers facilitate engagement in the Facebook setting in the context of the MIB course? **a) Is there evidence of cognitive and social engagement?**	Qualitative Description Observation • Description of the course environment (design and organization) and approaches used by the teachers on the Facebook groups	Descriptive Statistics • Descriptive statistics on the quantity of postings, comments, likes, photos/videos sharing and files sharing.

b) How teacher practices facilitate such engagement?	Content Analysis • Content analysis of the discussion based on indicators of teaching presence, cognitive presence and social presence from (Garrison, 2011) Observation and Content Analysis findings is linked to TPACK Koehler and Mishra	
3. How do teachers articulate their understanding social media particularly of Facebook in relation to pedagogy, content and technology knowledge and to the tensions which exist in this setting between the different elements, represented by these types of knowledge?	Interview •Interview on teachers understanding of social media particularly Facebook and link to TPACK (Koehler and Mishra, 2009)	

Table 3.1 Mixed Methods Graphic Representation

3.4. DATA COLLECTION PROCEDURES

Fieldwork took place at the Academy of Brunei Studies, University of Brunei Darussalam and lasted for about 6 months (July 2012-December 2012). The research study focused on MIB teachers and undergraduate students in Semester 1 taking the PB1501 MIB module in the 2012/2013 session at the University of Brunei Darussalam. In the data collection process, there were six phases. I conducted pilot work beforehand, allowed all research methods to be trialed and refined before the beginning of the data collection period. The following table (*see table 3.2*) gives an overview of each phase and then a detailed account of methods used and the rationale for choosing them for all phases.

Phase	Procedures	
Phase 1: First Questionnaire	Participant	Semester 1 students taking the PB1501 MIB module in the 2012/2013 session
	No of participant	Distributed to 400 students Collected 307 responses
	Date of distribution	Tuesday, 7 August 2012
Phase 2: Design of the Pedagogical Intervention	Set up of Facebook account with a profile name: '*Modul MIB*'	Third week of the MIB sessions
Phase 3: Second Questionnaire Survey	Participant	Semester 1 students taking the PB1501 MIB module in the 2012/2013 session
	No of participant	Distributed to 400 students Collected 362 responses
	Date of distribution	Tuesday, 5 November 2012
Phase 4: First Semi-Structured Interview	Participant	Five MIB teachers (Liza, Hilmi, Noor, Yunus and Khairul)
	Date of Interview	Tuesday, 19th February 2013 (Liza, Hilmi, Noor and Yunus) Thursday, 21st February 2013 (Khairul)
	Gender	3 Male (Yunus, Khairul and Hilmi) 2 Female (Liza and Noor)
	Years of teaching experience	More than 10 years (Noor, Khairul and Hilmi) Less than 3 years (Liza and Yunus)
Phase 5: Observation and Content Analysis of Facebook Group	No of Facebook Groups	10 Facebook groups
	Teachers Facilitating	Ariffin (Group 1,2,4 and 5) Liza (Group 3) Khairul (Group 6, 7, 8 and 9) Hilmi (Group 10)
Phase 6: Second Semi-Structured Interview	Participant	Four MIB teachers that apply Facebook in their teaching (Liza, Hilmi, Ariffin and Khairul)
	Date of Interview	Liza (Monday, 23rd June 2014) Khairul (Wednesday, 25th June 2014) Hilmi, (Thursday 26th June 2014) Ariffin(Friday 27th June)
	Gender	3 Male (Ariffin, Khairul and Hilmi) 1 Female (Liza and Noor)
	Years of teaching experience	More than 10 years (Khairul and Hilmi) Less than 3 years (Liza and Ariffin)

Table 3.2 Information of the data collection procedures

3.4.1. Phase 1: First Questionnaire Survey

In phase 1, I distributed the first questionnaire (*see appendix 1*) to 400 MIB undergraduate students during the second week of lecture class (Tuesday, 7 August 2012). In this study, the first questionnaire was designed to know whether students had a social media account and, if so, what types of social media spaces they had and how much and for what purposes they

were currently using them. Questionnaire 1 is generally a baseline study that provides quantitative information of students. The questionnaire findings could help to design pedagogical intervention in phase 2 of data collection (*see 3.4.2*) in which a Facebook account was set up and integrated into the MIB module in order to provide a complementary learning environment for MIB students. The setting up of Facebook groups relates to research question two that is seeking for indication on how teachers facilitate engagement in the Facebook setting in the context of the MIB course.

3.4.2. Phase 2: Design of the Pedagogical Intervention

Based on the survey findings from phase 1 which demonstrated that Facebook is widely and preferably used on a daily basis among the students, a Facebook account was set up with a profile name of 'Modul MIB' in the third week of the MIB sessions, intended to incorporate the largest possible number of students and lecturers. I distributed the Facebook group link address to the students and teachers during the lecture class, inviting them to join the Facebook space and the group managed to gather 273 friends.

Facebook pedagogical intervention required students to have a closed Facebook group according to their tutorial classes. Joining the group is actually voluntary, although two teachers, Khairul and Ariffin, made it compulsory for their tutorial groups.

Khairul facilitated four MIB private Facebook groups, each of which comprised 11 members, including him as the teacher. All of the groups were created by the *students* on the 11th, 12th and 13th of August 2012. Hilmi facilitated only one MIB private Facebook groups comprising 11 members including him as the tutorial class teacher of this group. It was created by one of his *students* on 11th of August 2012. Liza only facilitated one MIB private Facebook groups comprising 19 members including her as the tutorial class teacher of this group. As indicated by the transcripts data, the Group 3 Facebook group was created by Liza herself on the 11th of August 2012. Ariffin facilitated four MIB private Facebook groups; Group 1 consisting of 12 members, while Groups 2, 4 and 5 comprise 11 *students*. All of the groups were created by

the students on the 11th and 12th of August 2012. It is significant to highlight that all Facebook groups were created by students except for Liza's. The pedagogical intervention involved teachers such as Khairul, Ariffin and Hilmi in requesting the students in their MIB group to create their own Facebook group, then students are required to invite and gathered all their group members to join in.

Teachers had asked the students to actively participate in the Facebook group for example, by giving opinions, sharing documents and information as well as being active in communications. Teachers such as Khairul and Ariffin had made it compulsory for students to participate by reminding the students that their participation would gain marks. Hilmi, did not make it compulsory for his students. He gave his students free rein thereby leaving the students to use the Facebook space for themselves. Liza is more flexible in her pedagogical intervention as she agreed on using other social media such as WhatsApp for students' interaction. In this phase, these teachers have already shown that they were developing or asserting some kind of TPACK.

3.4.3.Phase 3: Second Questionnaire Survey

During the final week of the semester (5 November 2012), I circulated the second questionnaire (*see appendix 2*) amongst the 400 students. The second questionnaire resulted in the gathering of 362 samples of feedback from the students. In this study, the second set of questions was intended to explore how Facebook influenced students' learning experience and to perceive their views regarding the extent to which social media threatens to diminish or to eliminate local cultures in daily life as well in educational settings. Therefore, Questionnaire 2 aimed to explore students' perception of social media in the context of the MIB education and its challenges in the context of the MIB philosophy.

3.4.4. Phase 4: First Semi-Structured Interview

I conducted the first semi-structured interview in order to discover teachers' perception of social media and also to learn effective ways in using social media in higher education as well as determine their certainty of whether social media can help transform the MIB module. Four face to face interviews were conducted on the same day (Tuesday, 19th February 2013) with Liza, Hilmi, Noor and Yunus between 9 am and 12 noon that took approximately 20 to 30 minutes each. One interview took place in the interviewee's' office, while three interviews were conducted at their teaching place. Another interview with Khairul, lasting about 25 minutes, was held on a different day (Thursday, 21st February 2013) in the interviewee's office. All five interviews were audio-recorded with the consent of the participants. The description of how participants were selected is explained in section 3.5 Sampling.

3.4.5. Phase 5: Observation and Content Analysis of Facebook Group

In this study, the observation of ten MIB Facebook groups' space and content analysis of ten MIB Facebook groups' transcripts was intended to show the variety of information sharing between students outside the classroom in order to complement the delivery of MIB content in lectures and tutorial classes. The data collection procedures of Facebook group could produce information on teaching and learning activities as well as findings as to how a teacher might facilitate student engagement.

Activities among the teachers and the students in the Facebook groups were initially observed, reviewed, coded and categorised according to categories suggested by Garrison (2011); social presence, cognitive presence and teaching presence. These categories are also used as a guide for the content analysis of the MIB Facebook group transcripts in order to examine how teachers facilitate engagement in the Facebook setting in the context of the MIB course (*details of analysis is discussed in Chapter 5*). Both data collection procedures could generate a) information on **social presence** gained from looking into teachers' and students' shared communication and progressive development of personal and affective relationship   b)

evidence of **cognitive presence** in which students show their capability to construct and confirm meaning through persistent thinking and discourse and c) **teaching presenc**e data in which teachers design, facilitate and direct cognitive that enable social processes in a bid to ensure that the students are able to meet their learning outcomes.

This category by Garrison (2011) is used to interpret students' engagement because students' engagement as has been discussed in the literature review in chapter 2 has three dimensions, (as defined by Trowler, 2010) which involved behavioural, emotional and cognitive engagement. These three dimensions of engagement are in line with Garrison's (2011) categories and indicators that explain the social presence and cognitive presence. Furthermore, Garrison's (2011) categories include a further classification that looked into teacher presence in the online education settings. Relating the categories offered by Garrison (2011) in interpreting virtual teaching and learning experience justified the choice of the Community of Inquiry Framework developed by Garrison (2011) to analyse the content of the MIB Facebook group.

The 'gaps' that are identified at the end of Chapter 2 involved the dearth of literature from a cultural perspective as well as the lack of research into the use of social media in the teaching of MIB. As has been stated, it is a 'cultural' issue, and more specifically, I am using TPACK to illuminate how this cultural gap (MIB vs Facebook) is reflected in actual practice – but also whether it can be overcome by that practice, and how the development of TPACK is a factor in overcoming it. There is a need to understand the cultural context of complementing Facebook in the teaching process. To pursue these interests conclusively, the study will use a Community of Inquiry Theoretical Framework to assist in addressing these gaps. The process will include observing three interdependent elements, including social presence, cognitive presence and teaching presence in the Facebook group activities. The rationale is that the relationship between teachers and students, especially their shared communication process, could assist in developing knowledge about how to incorporate Facebook in the learning process. Students' capability to construct and confirm meaning through persistent

thinking and discourse as well teachers' design, facilitate and direct cognitive thinking, might help in addressing the gaps of the teaching of MIB using social media.

3.4.6. Phase 6: Second Semi-Structured Interview

Findings from the surveys and observation and content analysis of the MIB Facebook group helped me to design the second interview questions. This second phase interview was conducted to explain teachers' action in the MIB Facebook group relating to motivation and the content of postings which had not been derived in the earlier phase of interview. This phase of study aimed to gain full insight into different facets of teachers' use of Facebook (TK) in teaching and learning MIB in higher education, including an evaluation of the risks involved and the best means of harnessing its strengths for use in MIB education (PK), whilst at the same time not contravening the MIB values context (CK). This interview was built around the data derived from phase 5.

Face-to-face interviews were conducted with Liza on Monday, 23rd June 2014 at 12:15 pm – 1:15pm, Khairul Wednesday, 25th June 2014 at 2:30 pm – 3:30 pm, Hilmi, Thursday 26th June 2014 at 9:00am -10:00am, Ariffin Friday 27th June 5:30pm-6:30pm. All four interviews took approximately 30 to 60 minutes. Khairul's and Hilmi's interviews took place in the interviewee's' office, while Liza's and Ariffin's interviews were conducted at cafeterias as they are no longer members of the teaching staff in the University. All four interviews were audio-recorded with the consent of the participants. To protect the teachers' anonymity, they are referred to by their pseudonyms.

3.5. SAMPLING

It is critical for me to ensure that I focus on a sample that has the capacity of answering the research question. In interviewing the teachers, Cohen *et al.* (2000, p. 115) point out random sampling may lack sufficient information that is critical for the researcher to be able to meet his/her goals in studying the incidence. To mitigate against a random sample not being able

to address the specific information needed, Cohen *et al.* (2000), citing Ball (1990), state that purposive sample ensures that only knowledgeable sampling units are used in order to acquire in-depth understanding about specific concerns, conceivably by dint of their specialised role, expertise or experience, access to networks and power. Oliver (2006) defines purposive sampling as a form of non-probability sampling in a situation where a researcher chooses a particular group of people to be included in the sample to use in a study. Purposive sampling focuses on a group of people with particular characteristics capable of facilitating the research process which may include specialist knowledge of the research issue, or capacity and readiness to contribute in the research. In this regard, I am applying purposive sampling of teachers based on individuals who have comprehensive knowledge of the issue and their inclination to participate in this study. Purposive sampling gives researchers the opportunities to identify the appropriate participants on the basis of their ability to provide usable data that are detailed and relevant to the research question (Oliver, 2006). However, the major limitation of purposive sampling is that it encourages the subjectivity of researchers into the study processes. Researchers' subjectivity into study processes is a potential source of bias, and a significant compromise to the authenticity of the research conclusions.

Nevertheless, Oliver (2006) suggests that a purposive sample may be combined with a probability sample. Hence, in order to balance the potential bias in my study, I combined Purposive Sampling in interviews and Stratified Random Sampling in questionnaires. Stratified Random sampling, according to Lund and Lund (2015) is a type of probability sampling technique to study particular strata (meaning groups) within the population. In the questionnaire, I involved choosing students of PB1501 MIB module for Semester 1 2012/13 as my strata to explore students' perceptions of social media use.

Furthermore, two phases of interview were conducted in addition to the Facebook content analysis and observation. This is to ensure that there is an internal consistency between the aims and epistemological basis of the research, and the criteria used for selecting the purposive and probability sample.

Therefore, based on initial information gleaned, ten MIB teachers were approached based on their experience of implementing social media in MIB modules as well as having comprehensive knowledge about MIB content and pedagogical issues to justify their participation in the interviews. Of the number of teachers from the original sample (or population) of 10 that agreed to be involved, five teachers gave their agreement to take part in the first interview while in the second interview there were only four teachers.

The number of the sample expected in the questionnaire study would be 400 students as that is the number of students expected to take the module that semester. Borg and Gall (1979, p.194) suggest the smallest random sample number to be featured in a research undertaking has to be no fewer than 100.

3.6. RESEARCH DESIGN PROCEDURES

In this section, I present the quantitative and qualitative research design procedures. The detailed accounts of the design of questionnaires, interviews and Facebook are discussed in this section.

3.6.1. Quantitative Research Design Procedure

The quantitative questionnaire data was anticipated to pursue students' perception on social media in the context of the MIB education and its challenges in the context of the MIB philosophy. This could draw on teacher understanding of how Facebook and MIB content could influence and constrain one another (TCK). This quantitative finding could inform teachers which specific social media were best suited for addressing MIB learning (TPK). The following presents a detailed account of questionnaire design procedures:

3.6.1.1. Generating a preliminary set of questions

In the initial process, I listed a number of questions or ideas to be associated into the research question. The questions were established after evaluating a number of articles that share a similar context to the research area. Among researchers who have used social media questionnaires as an instrument in their studies are, for instance, Junco (2012) in which he used questionnaires to examine the relationship between Facebook use and student engagement. Roblyer *et al.* (2010) compared the use and perceptions of Facebook by both the faculty and the students as a tool that enhances the meeting of the learning outcomes. Pempek *et al.* (2009) described a) the average amount of time used on social media platforms; b) the core rationale instigating their use; and c) how the students tend to use and interact with social media.

Based on the above studies and the fact that there are large numbers of students as the sample, I could substantiate my preference of choosing a questionnaire to inform my findings. Furthermore, applying a questionnaire assisted me in 'listening' to students' opinion on social media in the context of the MIB education and its challenges in the context of the MIB philosophy. Additionally, findings from the questionnaire helped me to design the interview questions.

3.6.1.2. Designing the survey content

I was particularly intent on designing a highly structured questionnaire and accordingly the wording of each question was carefully selected beforehand and each participant was asked the same questions in the same order. Wording of each question was carefully selected beforehand and each participant was put through a similar interview. The potency of such an approach is hinged on the actuality that it enables ease of comparison (Oppenheim, 1992 p.115). In addition, it is much easier to code and analyses such responses in comparison to word-based data (Bailey, 1994 p.118).

In close-ended questions, I also included options such as *other (please specify), N/A* and *additional comments* to allow variety of response. In order to gain people's confidence in participating in the questionnaire, I attached the University of Manchester logo affiliation so that participants would be inclined to consider it as a *bona fide* piece of research. To make it a more trustworthy article of research, I provided a cover letter in the first page of the questionnaire, stating the intention of the research. Cohen *et al.* (2000, p.339) state that the core intent of the cover letter is to enable the researcher to indicate the research aims, highlight the need for the research undertaking, guarantee the level of confidentiality with which their responses will be treated and to motivate positive replies to the participation request.

3.6.1.3.   Questionnaires Pilot Studies

As has been stated by Oppenheim (1992, p.48), it is pertinent for all components of the questionnaire to be put out as a pilot study. Furthermore, Cohen *et al.* (2000, p. 341) indicate that the need for a pilot study is to enhance the validity, reliability and overall practicability of the adopted questionnaire.

This thereby illustrated the point that piloting is essential before the main survey with a large number of participants is conducted. Before the pilot study, I initially tested the instrument with colleagues to ascertain their level of satisfaction with it. As a result they personally agreed that it was going to measure what it was supposed to measure. This process is what Muijs (2010 p.66) names as establishing face validity. However, Muijs (2010) states that it would be more useful if a panel of experts in the field could judge the instrument as well. Thus, the instrument was forwarded via email to the supervisor for his commentaries.

Cohen *et al.* (2000, p. 342), indicate that a pilot study should be conducted on a sizeable and representative number of participants, for example between 50 to 100 in order to generate real data-numerical responses. Having devised the appropriate design and content of

questionnaire, I distributed the pilot questionnaire survey and collected 70 questionnaires as feedback.

The outcomes from the pilot studies suggest that there are issues that need attention such as the designing of the questionnaire not only in Malay (Brunei's own language) but also in English as some of the students are Chinese and not all are Malay literate. Students can choose whichever language they feel more comfortable using. It is thought that a bilingual language version may well attract more participants, especially among the Chinese who do not communicate well in Malay. Cohen *et al.* (2000, p.139) point out that research should be appropriate to the culture of the research field and that includes checking and reviewing appropriate target language so that the research questions are readily understandable to the target group. Apart from that, there have been a few amendments on both questionnaires, which were mostly concerned with typing errors in wordings.

3.6.2. Qualitative Research Design Procedure

The qualitative data from Interview and Facebook Analysis was expected to complement the findings from quantitative data and help me to understand what the information actually meant. The following presents a detailed account of interview, observation and content analysis design procedures:

3.6.2.1.   Interview

In this section the designing of the interview schedule and setting up the interview will be discussed in detail.

3.6.2.1.1.   *Designing the interview schedule*

To comprehend teachers' perceptions regarding social media, in the first phase interview, I asked the teachers their opinion of social media impact on MIB (TCK), and what they

considered were the effective ways of using social media in higher education (TPK) as well as ascertaining their certainty of whether social media could help transform the MIB module (PCK). The second phase interview was aimed at gaining additional insights into the Facebook analysis findings and to understand teachers' teaching methods and participation in the social media community, particularly Facebook. I also hoped thereby to pursue the issues and problems in integrating social media and MIB education (TPK) and to recognize the tension that rose between the social media and MIB philosophy (TCK) as well as how educators develop new ways of comprehending and accommodating the complexity of teaching and learning the MIB philosophy (PCK).

I prepared the semi-structured interview schedule *(see appendices 3 & 4)* earlier to assist me during the interview session. It was expecting that the interview session would last approximately 30-60 minutes. I also ensured that the rights of the participant to withdraw from the research were adhered to. Accordingly, I initially designed a consent form for the interviewee to sign, stating their agreement to participate *(see appendix 5)*.

3.6.2.1.2.   Setting up the interview

Before the interviews were conducted, ten MIB teachers were approached and five agreed to take part in the first interview, namely Liza, Hilmi, Noor, Yunus and Khairul in order to present their perception of social media in the MIB education context. In the second interview, teachers who implemented Facebook in their teachings were asked if they would agree to be interviewed and allow their Facebook groups to be observed. Four teachers, Liza. Hilmi, Ariffin and Khairul complied with this request.

Initially, I contacted them via Facebook message, SMS, and WhatsApp using their private telephone numbers to inquire as to whether they would be prepared to participate in the research. An agreed time to conduct the interviews was then fixed. I gave the interviewees information in advance regarding the interviewing process such as the length of interviews

and a brief summary of the nature of the interview questions. I also asked them beforehand if they would give their permission for me to record the conversation.

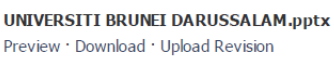### 3.6.2.2.   Facebook Analysis

There are limited studies of Facebook that use qualitative approaches in their analysis. One research by Barden (2012) has comparable methodology with this study in which he undertook a Facebook analysis study via participant-observation and dynamic screen capture methods in order to examine the educational affordances of a digitally mediated social network. Although his study is carried out as an ethnography study, I am doing a case study, but I was able to employ similar methods of observation together with content analysis with a different approach to analyse Facebook groups in order to gather data of teachers' virtual activities in facilitating students' engagement and at the same time to help interpret the students' engagement in the social network.

3.6.2.2.1.   *Summative Content Analysis*

Anderson *et al.* (2001) use a model framed by a community of inquiry developed by Garrison (2011) to illustrate '*teacher presence'* in the multidimensional components of teaching and learning in a text-based setting in which they are investigating the transcriptions of computer discussions, emanating from graduate level university courses. They utilize a research technique called content analysis and give more consideration to latent content that involves in-depth interpretation and offers meaningful justification on the subject. Holsti (1969) states that a summative approach to qualitative content analysis goes further than just word counts but takes account of latent content analysis. Latent content analysis as indicated by Holsti (1969) refers to the process of interpretation of content. Furthermore, Gray and Densten (1998) also seem to postulate the notion that the latent aspect of content ought to be integrated into content analysis via the integration of quantitative and qualitative approaches.

The study of qualitative content analyses of the Facebook group could develop teachers' knowledge by understanding the potential of social media (TK) and particularly into the teacher use of Facebook in creating and sustaining "teaching presence" in the Facebook setting (TPK). The findings will also assist to explore how social media such as Facebook might play a role in responding to the contextual constraints of the lecture (TPK).

In this study, I took on the three interdependent elements of the Community of Inquiry (CoI) theoretical Framework developed by Garrison (2011) - social presence, cognitive presence and teaching presence as a reference point to code the teaching and learning activities occurring in the virtual social setting. In preparing for content analysis of a Facebook group, a recording sheet template (*see appendix 6*) provided by Garrison (2011) within the Community of Inquiry Conceptual Framework was used (*see table 3.3, 3.4 & 3.5*)

Category	Indicators	Definition	Example
Interpersonal Communication	Affective Expression	Conventional expressions of emotion, or unconventional expressions of emotion, including repetitious punctuation, conspicuous capitalization, emoticons	*"Oh, Thank God…!!!* *"GOOD LUCK!* ☺
	Self-Disclosure	Presents biographies, details of personal life outside of class, or expresses vulnerability	*"I only slept for just two hours..."* *"I just don't understand this question"*
	Use of humour	Teasing, cajoling, irony, understatements, sarcasm	*"If someone has not yet accepted the friend request please ask permission from your boyfriend first..."*
Open Communication	Writing a comment	Using comment feature of Facebook	
	Quoting from others' messages	Using Facebook features to quote others' messages, or cutting and pasting, selections of others' messages	**UNIVERSITI BRUNEI DARUSSALAM.pptx** Preview · Download · Upload Revision
	Referring explicitly to others' messages	Direct references to contents of others' posts	*"I copy and paste summary from our tutor regarding the topic of 'matters that have been proved"*
	Asking questions	Students ask questions of others students or the moderator	*"How is this group? How's your assignment...ok?"*
	Complimenting, expressing appreciation	Complimenting others or contents of others' messages	*"Awesome! That's more than enough to support your points"*
	Expressing agreement	Expressing agreement with others or content of others' messages	*"I agree if we choose Saturday for meetings"*

Cohesive Communication	Vocatives	Addressing or referring to participants by name, Use of Brother and Sister	*"Fiona, could you tell me where do you get the information from?"* *Please read your inbox sis.*
	Addresses or refer to the group using inclusive pronouns	Addresses the group as we, us, our, group.	*"I have found related information to put into our slides"*
	Phatics, salutations	Communication that serves a purely social function: greetings, closures. Use of Arabic language to Greet	*"Hi all," "That's it for now,"* *Salam.* *Salamo Alykum*

Table 3.3 Social Presence Descriptors and Indicators

Phase	Descriptor	Indicators	Example
Triggering Event	Evocative (Inductive)	Recognize Problem Puzzlement	*"Of what I understand your data is looking at the history, what is the relation to MIB?"*
Exploration	Inquisitive (Divergent)	Divergence Information Exchange Suggestions Brainstorming Intutitive Leaps	*"This source states that the Arab traders come through Brunei through trade via sea and from there some people converted into Islam. This is strengthened by the marriage of the Sultan of Brunei to Princess Johor and again the sea became the connecting device"*
Integration	Tentative (Convergent)	Convergence Synthesis Solutions	*It is bullying, and has elements of racism. I agree with your opinion regarding the racism issue. Maybe we can relate to bullying from the Malay because they feel superior as they are the dominating population in Brunei so... they are less sensitive in others culture and ethnicity.*
Resolution	Committed (Deductive)	Apply Test Defend	*"A good test would be to ensure that participants understand the expectations, and that collaboration is properly rewarded. Once implemented, this could be assessed by considering project grades as well as the impressions of the participants"*

Table 3.4 Cognitive Presence Descriptors and Indicators

Instructional Design and Organization Indicators	
Indicators	**Examples**
Setting curriculum	*"This week we will be discussing…"*
Designing Methods	*"I am going to divide you into two groups, and you will debate…"*
Establishing time parameters	*"Please send your assignments by next saturday…"*
Utilizing medium effectively	*"Try to address issues that others have raised when you post"*

Establishing netiquette	*"I think we are getting off track here. If want to talk about something else you can inbox me"*
Making macro-level comments about course content	*"This discussion is intended to give you a broad set of tools/skills which you will be able to use in deciding when and how to use different research techniques"*

Facilitating Discourse Indicators	
Indicators	**Examples**
Identifying areas of agreement/disagreement	*"Your explanation is too brief.... and cannot be representing the meaning and purposes of MIB. You are talking about history of MIB, not the definition"*
Seeking to reach consensus/understanding	*"I want you to clarify the relationship of MIB with the commissioned officer from the point of national defence"*
Encouraging, acknowledging, or reinforcing student contributions	*"Thank you for active contribution in the Facebook group"*
Setting climate for learning	*"Use your abilities.. Just one thing that you must improve.. "confidence". Every ideas you want to share here you must have confidence"*
Drawing in participants, prompting discussion	*"Any thought on this issues?" "Anyone care to comment?"*
Assess the efficacy of the process	*"I think we're getting a little off track here"*

Direct Instruction Indicators	
Indicators	**Examples**
Present content/questions	*"Remember what I said, MIB cohesiveness is what Brunei is, it differentiates us with other countries"*
Focus the discussion on specific issues	*"Just choose whichever you think is important and meets with topic"*
Summarize the discussion	*"The Kastila War is…Fiona said…Zain said…we concluded that…We still haven't addressed…"*
Confirm understanding through assessment and explanatory feedback	*"You're close but you didn't account for…this is important because…"*
Diagnose Misconceptions	*"Obvious weakness in the slide attachment is.. preferably you should.."*
Inject knowledge from diverse sources, e.g. textbook, articles, Internet, personal experiences (includes pointers to resources)	*"Useful Information… http://www.facebook.com/kamarul.faizal.31/posts/3974404791154"*
Responding to technical concerns	*"If you want to include a hyperlink in your message, you have to…"*

Table 3.5 Teaching Presence Descriptors and Indicators

### 3.6.2.2.2.	Observation

In the observational study, I seek to recognise teacher facilitation and social interaction with the students in the Facebook group. Additionally, it also looked into student engagement. According to Chapman (2003), direct observations are frequently employed in the verification of students' degrees of commitment in learning tasks. At the same time, Lichtman (2006) speaks about how observational researchers can now see new arenas for studying culture, in which it is not necessary to physically move to distant physical locations; it is now possible to simply access a cyber-location thereby enabling the researching of online cultures.

In these methods, I intended to record the existence or absence of a behaviour during a specific time period such as attendance and involvement, the lack of disruptive or negative behaviour as well as observing affective reactions such as interest, enjoyment, or a sense of belonging. A record of the seeking of cognitive conversation by the students on the Facebook was also sourced.

Again, I used social presence and cognitive presence indicators provided by Garrison (2011) to make sense of students' engagement in the Facebook group setting as well as teaching and social presence of teachers in facilitating students' engagement and developing knowledge about the integration of the technology.

Observation methods can be said to have four degrees of participation which are classified as the researcher's roles in observation. Firstly, *'complete observer'*, then *'the observer as participant',* next '*the participant as observer'* and finally *'the complete participant'* (Cohen *et al.*, 2000, p.397). In this study, I took a role as an 'observer as participant' that is after requesting permission from the teachers, I was present in the friend list of the Facebook group. In order to help me understand what is going on from the 'inside' of the Facebook group, I needed to gain access. Therefore, during the observation, I did not try to communicate so that I did not influence what was happening, but it is impossible to say that my presence did not change the situation. The benefit was that I had significant scope for recording, objectivity and

interpretation. According to Cohen *et al.* (2000), the *'observer-as-participant'* is a researcher who has less extensive interaction with the group.

3.7. DATA ANALYSIS AND INTERPRETATION PROCEDURES

In this section, I present the data analysis and interpretation procedures. The detailed accounts of the analysis of the questionnaires, interviews and Facebook groups are discussed.

3.7.1. Surveys Data Analysis

The quantitative data from both questionnaires was analysed using the Statistical Package for the Social Sciences (SPSS) in order to explore descriptive statistical analysis. Descriptive statistics aim to summarize a sample and provide simple summaries about the sample resulting in a simpler interpretation of the data. This is because SPSS will be used to describe and present quantitative data in both surveys because questionnaires data is voluminous and there is a need to visualise it. According to Lund and Lund (2013) descriptive statistics are very important because they effectively present raw data that is hard to visualize especially if there is a lot of it.

No inferential statistics were performed in this study as this study is merely quantitatively comparing the findings among the students and describing the main features of a collection of personal information and students Facebook activities. In other words, this descriptive analysis provided me with simple quantitative data summaries and simple graphics analysis about the samples and student Facebook activities. Furthermore, descriptive statistics as claimed by Coladarci *et al.* (2004, p.2) are frequently used to "*organize and summarize data so the data are more readily comprehended*".

3.7.2.Surveys and Interview Data Analysis

Qualitative data from open-ended questions in Survey 2, MIB Facebook group conversation as well as interviews were analysed. Thematic analysis is employed as a means of identification, analysis and the reporting of the patterns (themes) that characterize the data according to Braun and Clarke (2006 p. 79), it *"minimally organizes and describes data set in (rich) detail and involves the searching across a data set to find repeated patterns of meaning".* I used six phases of analysis outline guide provided by Braun and Clarke (2006 p.86) that is: (1) Familiarizing with data; (2) Generating initial codes; (3) Searching for themes; (4) Reviewing themes; (5) Defining and naming themes; and (6) Producing the report. As stated by Patton (1990), although the guidelines are not rules it is important to recognize that qualitative analysis guidelines need to be applied flexibly to fit the research questions and data.

3.7.2.1.   Familiarizing with data

Braun and Clarke (2006 p.87) indicate that it is important that the questions that guide the coding and analysis of the data are considered before and during thematic analyses. It is pertinent to appreciate the need for a high degree of interaction between a researcher and the collected data. The researcher should ensure that they have a deep and wide understanding of their data by repeatedly reading. In this way, the researcher will be able to easily identify patterns and otherwise hidden meanings.

During this first phase, I repeatedly read the data findings in order to be familiar with the patterns of meaning. The potential issues of interest were written down in the data such as: large lecture classes; lectures needing more engaging; tutorials 'over-used' - that is, trying to do too many things and cultural homogenization which threatens to diminish or to eliminate local cultures by creating a global culture. Furthermore, the effect of social media and the development of teachers' TPACK as well as the tensions between CK, TK, PK in this case were also borne in my mind.

3.7.2.2. Generating initial codes

After reading and familiarizing myself with the data, I generated an initial list of ideas about what is interesting in the data. This phase is what Braun and Clarke (2006 p. 88) call involving the production of initial codes that identify a feature of the data that appears interesting to the analyst, and refer to "*the most basic segment, or element, of the raw data or information that can be assessed in a meaningful way regarding the phenomenon*" (Boyatzis, 1998 p.63).

The research questions and the TPACK Theoretical Framework guided the analytical procedure by identifying the main areas of investigation. However, Koehler and Mishra (2009) did not constitute fixed templates as a guide for coding. Therefore, an inductive approach was employed in a bid to ascertain a link between the objectives of the research and its findings. The links that have been identified have to be both transparent (able to be demonstrated as TPACK categories) and justifiable (defensible given the objectives of the research).

MAXQDA software helped to record the label of each code and sub-code *(see figure 3.1).* Using the software, the repetitive coding can easily be detected and be reviewed. The early stage of coding saw a number of repetitive coding, so the codings were revised and refined. This process was repeated until I was satisfied and confident on deciding the right categories.
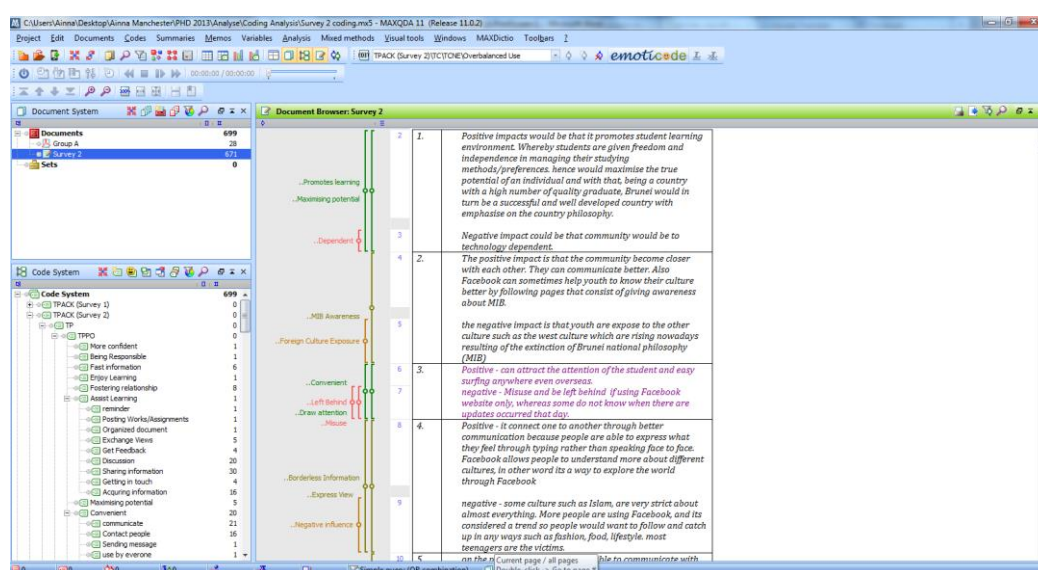
Figure 3.1 MAXQDA Software that help to detect repetitive coding

3.7.2.3. Searching for themes

Once a list of the different codes from the data set had been drawn up, sorting the different codes into potential themes was the main focus. At first, I located the interview data according to the seven components of TPACK in order to determine what knowledge arise from the interview data. Then, I identified categories and developed a list of potential themes. For instance in Noor's data, '*well received by people of any age'* and '*message quickly received'* were grouped under the overarching theme *Technological Affordances (see figure 3.2)*.

Interview data	TPACK Component	Category	Themes
What I understand by *the meaning of social media* when I google was it has 4 aspects. The message posted in social media are for public opinion, usually *is not filtered*, message arrives quickly at any time including the *unsuitable timing* and messages usually reaches the receiver but people can *limit themselves* to read or viewed the messages send.	Technology Knowledge	Teacher define the characteristics of social media	Technology Concerns
Sometime this is the case where *students limit themselves from receiving information*	Technology Pedagogy Knowledge	Students limit themselves from receiving information	Pedagogy Concerns
Positive impact, it can be a*ccepted by people at large*. It is well received by the whole nation of Brunei that is from the younger to the older generation.	Technology Knowledge	Well received by people of any age	Technological Affordances
What I mean by the second aspect that I said earlier regarding to the *unfiltered messages*, was the information can be received whether you want it or not, we tend to watch something even though we do not want to unless one limits it.	Technology Content Knowledge	Unfiltered information	Content concerns
I can't see any negative but the impact depends on the individual. Messages can be *received in seconds*.

(Interview, 20.02.2013) | Technology Knowledge | Message quickly received | Technological Affordances |

Figure 3.2 Demonstration of Interview coding

Similarly, with the quantitative data, similar procedures were employed. I located the questionnaire data within the seven components of TPACK and identified the categories and then developed impending themes (*see figure 3.3*).

Questionnaire Open-ended data	TPACK Component	Category	Themes
The positive impact of Facebook is that it *helps people to easily interact with each other wherever they are*. All they *need is good internet connection* to log on into Facebook. (Questionnaire, 16.06.2013)	Technology Knowledge	Convenient for communication	Social Affordances
	Technology Knowledge	Internet connection issues	Students' concerns
The positive impact is that we can *share some ideas* with our colleagues regarding what topic we are going to present in class. It also makes our *communication a lot easier*. (Questionnaire, 19.06.2013)	Technology Content Knowledge	Sharing Information	Technological Affordances
	Technology Knowledge	Convenient for communication	Social Affordances

Figure 3.3 Demonstration of Questionnaire coding

3.7.2.4. Reviewing themes

I revisited the entire data again as according to Braun and Clarke (2006) in this phase we need to reread the whole dataset. There are two rationales for this approach. The first is to ascertain that there actually exists a link between the adopted theme and the data set that has been used. The second is to ensure that all the data has been coded.

3.7.2.5. Defining and naming themes

As Braun and Clarke (2006) state, the approach termed '*define and refine'* is used so as to ascertain the essence of each and every theme characterizing the study and the data that has been captured by each of the themes. They add it is critical to ensure that the theme is neither

overburdened nor given too wide a remit as well as to not just rephrase the content of the data excerpts, but to recognise what is of importance about them and why.

As stated by Braun and Clarke (2006 p. 93) *"names need to be concise, punchy, and immediately give the reader a sense of what the theme is about"*. Therefore, at the end of this phase I decided on the final working themes which should illustrate this in the final analysis.

3.7.2.6. Producing the report

The analysis of the thematic approach is what phase 6 entails. The intent is to embark on an analysis that is effective in ascertaining the merit and validity of the entire process (Braun & Clarke, 2006). Hence, in producing this report the analysis and interpretation of the analysis will be discussed in Chapters 4, 5, 6, 7 and 8.

3.7.3. Facebook Data Analysis

As has been stated earlier, the Community of Inquiry coding template by Garrison (2011) provides guidance for the analysis of the nature and quality of the Facebook learning experience. I used this template to observe and code the Facebook Transcript in the early stage of the study. Then, the findings from the quantitative findings and qualitative findings of observation and transcript analysis are interpreted and discussed. These analysis and interpretation procedures contribute to comprehend TPACK in teaching MIB with the complement of social media. In a way, I could be able to understand the nature of social interaction of students and teachers in a non-verbal environment (TK). Additionally, I could be able to understand students' cognitive practices in Facebook settings that include presenting information which generates curiosity and questions, brainstorming ideas, offering supportive or contradictory ideas and concepts, soliciting narratives of relevant perspectives or experiences and eliciting comments or responses as to the value of the information or ideas as well as assimilating data, present messages of agreement, constructing on other thinking, providing a validation or explanation and clearly proposing a resolution (TCK).

Most importantly, the analysis and interpretation procedures contribute to answering the second research question in which I needed evidence of how teachers facilitate engagement in the Facebook setting. The analysis and interpretation results could draw on the technology and pedagogy knowledge of the roles of a teacher or the actual functions that a teacher performs to create and maintain a dynamic learning environment in order to engage students (TPK). In what follows is the detailed account of how I am doing the data analysis of Facebook.

3.7.3.1.   Observation and Content Analysis of Facebook Group

In analysing the content of the conversation text of the MIB Facebook group, I started with observing, identifying and quantifying certain activities such as students' and teachers' postings, comments, likes, photos and videos sharing and files sharing (*see figure 3.4*) with the purpose of understanding the contextual use of Facebook group features. Hsieh and Shannon (2005) stated that the quantification process endeavours to explore the potential usages rather than attempt to deduce meaning.

MIB Facebook Group Activities

	Group 6	Group 7	Group 8	Group 9
■ Postings	91	260	84	258
■ Comments	187	1308	80	549
■ Likes	3	428	1	4
■ Photos/Videos	8	8	6	2
■ Files	20	78	3	101
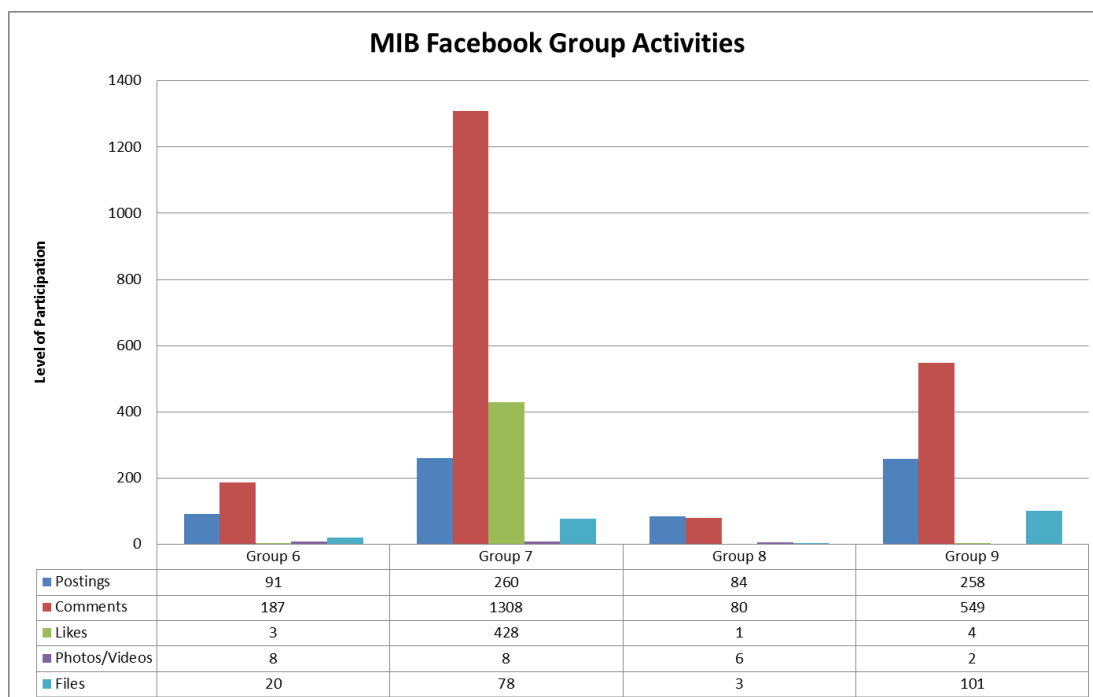
Figure 3.4 Demonstration in bar graph of identifying and quantifying Facebook activities

From a quantitative exploration of usage, teachers developed their TPACK, for instance becoming more aware of the affordances of Facebook as teaching with Facebook offers new experience of easier communication and sharing information with students.

Qualitative content analyses of the Facebook group compensate for additional comprehensions of quantitative approach. In other words, the qualitative findings assist me to understand the quantification of certain Facebook activities I have collected. For example, in group 6 there are 91 postings recorded and to understand what type of postings, the qualitative approach leads to the interpretation. According to Holsti (1969), a summative approach to qualitative content analysis should encompass latent content analysis, which refers to the process of interpretation of content, and not merely focus on counting.

Therefore, I categorized specific words and different types of content according to categories of indicators provided by Garrison (2011, p.25) which are deemed to evidence social presence, cognitive presence and teacher presence. Using the text or message as the unit of analysis, I use the categories of indicators template as a guide for the coding analysis of the nature and quality of the Facebook teaching and learning experience (*see figure 3.5*).

Extract 5 (Group 6)	Social, Cognitive & Teaching Presence Indicator
HD uploaded a file. Hi all, this is the final draft for our presentation this Saturday. Sir Khairul, please give comment.. and other members please tell what do you think? Any thoughts are welcome. Just say it., Thank you. Like · Comment · Follow post · 7 September at 01:08 Khairul and LA like this.	• Social Presence/ Cohesive Communication / Salutations • Social Presence/ Cohesive Communication / Vocatives
Khairul Overall your presentation draft is good. I am suggesting the decree be deleted.. it is enough to explain that MIB has it legalisation on independence day. (so that it is consistent with others) 7 September at 01:30 · Like	• Teaching Presence/Facilitating Discourse/ Acknowledging • Teaching Presence/ Direct Instruction / Focus the discussion on specific issues
HD Thank God., thank you for your opinion sir, not out of topic ???? 7 September at 09:23 via mobile · Like	• Social Presence/Open Communication/ Expressing appreciation • Social Presence/Open Communication/ Asking Question • Social Presence/Interpersonal Communication/ Affective expression

Khairul hehe .. 7 September at 18:02 · Like	• Social Presence/Interpersonal Communication/ Affective expression

Extract 12 (Group 10)	Social and Cognitive Presence Indicator
ZP uploaded a file. Hi everyone. I have compiled some points from my resources and the resources that you have given and combined it with the document IW has uploaded. Please feel free to edit/add in information. Preferably before tomorrow. Thanks. :) Like · Comment · Follow post · 3 September at 16:27 AM likes this.	• Social Presence/ Cohesive communication/Salutation • Social Presence/ Cohesive communication/Vocatives • Social Presence/Interpersonal Communication/ Affective expression
CP ZP...umm..what about the public getting an opportunity to go to the palace during Eid and they get to meet the sultan...they also get food and gifts/green packet every year...And, student scholarship. Like students in Brunei are so gifted coz we get govt. scholarship and everything is paid for... 3 September at 23:38 · Like	• Social Presence/ Cohesive communication/Vocatives • Cognitive Presence/ Exploration/ Brainstorming
ZP yeah that can be included. can you possibly find the resources for that? 3 September at 23:40 · Like	• Social Presence/ Open communication / Expressing agreement • Social Presence/Open Communication/ Asking Question
WR what about in terms of patriotism? Can we include that one? And that will be under which point? Social? hehe.. 3 September at 23:51 · Like	• Cognitive Presence/ Exploration/ Suggestion • Social Presence/ Open communication/ Asking question • Social Presence/Interpersonal Communication/ Affective expression
ZP Maybe, more likely Nationalism? It depends. What points have you got? 3 September at 23:54 · Like	• Cognitive Presence/ Exploration/ Suggestion • Social Presence/ Open communication/ Asking question
CP http://www.bt.com.bn/newsnational/2012/08/24 /record-number-people-visit-istana A record number of people visit Istana www.bt.com.bn A total of 110,728 people visited the palace during three days. The three-day Istana Nurul Iman open house for the public concluded yesterday, bringing the final visitor-tally to an all-time high, with nearly… 3 September at 23:59 · Like	• Cognitive Presence/ Exploration/ Information Exchange • Social Presence/ Open communication / Expressing agreement

Figure 3.5 Demonstration of coding specific words and different types of content according to categories of indicators provided by Garrison (2011) - Group 6 and 10 Facebook Extract.

However, there are some challenges of deciding which categories of indicators the message falls into, particularly in deciding in which phase students' cognitive presence lies.

For example, in cognitive presence descriptors, there are four phases of cognitive presence; 1) Triggering Event, 2) Exploration, 3) Integration and 4) Resolution (*see Table 3.4 Cognitive Presence Descriptors and Indicators*). Some messages that should be coded as Phase 3 (Integration) can look like a resolution to a problem posed and be coded as Phase 4. The following is an example of a message that looks like an application to the real world.

> *I have omitted that point because I am not confident to explain that.*
> *I replace it with… So, the slide goes like this,*
> *Bruneian still failed to understand cultural connotations from the right perspective. It is now possible for outside negative cultures to influence our cultural values.*

This message could be considered a solution; however, within the context of the thread, it is an idea based on a combination of opinions from the members of the group and should be coded as Phase 3 (integration) because they make assimilation based on the members exchanging information, making suggestions and brainstorming.

3.8. ETHICAL CONSIDERATIONS

All methodology applied in this study has ethical issues to consider. According to Kvale (1996, p. 111), there are three main areas of ethical issues here in interview, that is: informed consent, confidentiality and the consequences of the interviews. In the same vein, Dyer (2006) listed two issues in particular that should be considered carefully in interview; firstly, attention must be given to the issue of confidentiality of data and secondly the right of a respondent to withdraw from an interview must be respected.

On the other hand, according to Cohen *et al.* (2000, p. 317), the questionnaire is a tool that intrudes into the lives of the respondent. Such intrusion might be in the form of time, the sensitivity of the questions asked and the potential for invasion of privacy. Hence, I cannot coerce the potential respondents to participate in the study. The respondents have autonomy in their participation in the study.

Baker (2006) also argues that ethics is one of the major factors associated with observational studies. Cohen *et al.* (2000, p. 410) state that observer effects can be considerable, although

the claim for *'observer as participant'* as being non-interventionist could be posited. However, the issue of researcher presence in the Facebook group exerting a powerful influence on what takes place has to lead to it being disingenuous to pretend otherwise. In other words, I can say that all methods applied in this study face ethical dilemmas between the need to gather research data and the need to reflect on an ethical code of conduct. Researchers are obligated to ensure the wellbeing of the respondents.

Realizing those issues, in this study, the Ethical Guidelines for Educational Research (BERA, 2011) particularly regarding participant consent, data protection and withdrawal was observed. Participants were informed that the information they provided would not be seen by others. For instance, in interviews, I gave participants a consent form (*see appendix 5)* to sign agreeing to participate while with the questionnaire, a covering letter to indicate the aim of the research was issued and assurance of confidentiality was specified. As well as in interviews, I obtained permission of the participant in the interview session to use audio records in the interview process. In the Facebook groups, teachers asked the students to add me to the friend list of the MIB group and their teachers introduced me as an observer. I also informed them that only text activities were to be observed and analysed without mentioning individuals' Facebook account identity.

3.9. VALIDITY AND RELIABILITY

According to Cohen *et al.* (2000, p.133), validity is a critical component in the efficacy of a research undertaking. Such a realization then affirms its role in both quantitative and qualitative research. Cohen *et al.* (2000, p.133) cite Winter (2000) stating that validating qualitative data can be realized via the depth, richness and the overall scope of the data that has been collected. Cohen *et al.* (2000, p.133) further explain that in a quantitative data setting, the degree of validity can be enhanced via thorough sampling, suitable instrumentation coupled with the application of appropriate statistical approaches.

According to Cohen *et al.* (2000, p.146), in quantitative research the term reliability is used synonymously with consistency, dependability and replicability over time, over instruments and over groups of participants. Cohen *et al.* (2000, p.146) state that reliability in his regard is focused on instilling a high degree of accuracy and precision of some features in which they exemplified that height can be measured accurately, whereas other respects for instance musical ability cannot.

Lincoln and Guba (1985) have a preference to substitute 'reliability' with terms such as '*credibility'*, *'neutrality'*, *'confirmability'*, *'dependability'*, *'consistency'*, *'applicability'*, *'trustworthiness'* and *'transferability'*. LeCompte and Preissle (1993, p.332) suggest that the tenets of reliability characterizing quantitative research have the risk of being essentially impracticable in the dynamics of qualitative research. Cohen *et al.* (2000, p.146) state that quantitative research postulates the potential of replication, since, if identical approaches are undertaken with a similar participant, then the findings ought to be the same. However, according to Cohen *et al.* (2000) in qualitative studies there is exclusivity and peculiarity of situations in which the research cannot be duplicated. This should be regarded as a strength rather than a weakness. Cohen *et al.* (2000) further state that qualitative study ought not to strive for uniformity. Different researchers who are investigating the same issue might come up with varied results despite using the same research approaches.

Therefore, in this study, in order to improve validity and reliability, triangulation was applied across:

1. Samples, through interviews with six teachers, questionnaires of more than 300 hundreds students, observation of ten MIB Facebook groups and content analysis of the ten MIB Facebook groups transcripts.

2. Types of data such as interview and Facebook transcripts, Facebook observation notes and questionnaires outcomes. The findings from questionnaires, interviews, observation and also Facebook Transcripts are transferred from the Malay language to the English

language. As stated by Van Nes *et al.* (2010, p.314), dissimilarities in language might engender supplementary hurdles, which have the potential of hindering the transference of meaning thereby culminating in its loss of validity in the qualitative study. However, as stated by Polkinghorne (2007), qualitative research ought to be considered valid only when the there is little variation between the meanings that have been intended by the participants and the meanings that have been comprehended from the collected data.

In light of this, while doing the translation I translated the sentences as a whole not as each word. I interpreted the participants' sentences into what they actually mean.

3. Methods of data collection in the form of questionnaire, observation, interview and content analysis. I found that triangulating across methods strengthened my confidence in the outcomes of the findings. For example, the outcomes of a questionnaire survey correspond to those of the first interview study of the same phenomena, similarly to the outcomes of the Facebook observation and content analysis correspond to the second interview.

CHAPTER 4: STUDENTS' PERCEPTION OF SOCIAL MEDIA

4.1. INTRODUCTION

The first research question pertaining to this study is '*How do students perceive social media in the context of its potential challenges to MIB philosophy?*' This section of the thesis reports on the findings from phase 3 of the research timeline. This took place in the final week of the teaching semester. This chapter reports the findings from this, providing a picture of student use of Facebook features and their perceptions of its use within the MIB module. These indicate student observations of pedagogical, social and cultural affordances.

The processing of gathering data includes distributing questionnaires. Investigating the literature on implementing social media in education, such as the study by Baran (2010), the data collection process involves the use of questionnaires and complemented with face-to-face interviews to verify or expand on the responses of participants. This research entailed a large number of students, thus prompting the use of open-ended question in the questionnaire to give students the opportunity to develop details of their responses. O'Bannon *et al.* (2013) used surveys to study the efficacy of employing a Facebook group as a means to enhance the knowledge of pre-service teachers as it pertains to fundamental technology topics. Therefore, conducting a questionnaire to gather information has been considered before in studying participants' opinions.

4.2. IMPLEMENTATION OF FACEBOOK IN THE MIB MODULE

The majority of the students have implemented Facebook as their complementary space to communicate with their colleagues and teachers. Among the 362 respondents to the question which asked if the respondents were using Facebook in the MIB module, 338 'Yes' answers were obtained.

Interestingly sharing content was identified as the function used by the majority with 76.5% responding that they uploaded documents. At 66.11% and 63.59% respectively, 'Reading friends' comments' and 'Posting comment' were also high in activity reporting.

Other activities that are also mentioned are 'Clicking Like Button' (43.70%), 'Turning to an online chat/discussion group when needing help with something' (42.86%), 'Posting status update' (40.62%), 'Checking friends' status update' (40.62%), 'Creating a poll for friends online'(39.22%) and 'Following friends' post' (32.77%). The least selected activities on the Facebook group were 'Uploading video to a video-sharing site (such as YouTube) and 'Clicking Share button' with only 15.41%. 3.92% selected 'Other' activities for the activities they did in the Facebook group.

These findings confirm that the majority of the student group have made use of the main features of Facebook and this has put them in a position of being able to comment on their perceptions of its use. For the rest of this chapter, those perceptions will be the focus. Chapter 5 will explore further the observed activity through content analysis of the Facebook tutor groups.

4.3. PERCEPTION ON MIB MODULE FACEBOOK GROUP

In what follows are the responses of the respondents to closed-ended questions using a Likert scale to ask their perceptions in their experience using Facebook during the MIB course and open-ended questions regarding their views on the extent to which Facebook threatens MIB philosophy.

4.3.1.Closed-ended questions

Question 4 asked students what they consider to be the most and least useful activities on Facebook, recording their inclination in rank order from 1 – 8 (where 1 was the most useful while 8 the least useful). Table 4.1 below indicated that the most significant activity that they

think is useful was 'Sharing resources and information', then 'Finding information and getting feedback', followed by 'Contacting colleagues'. 'Talking to colleagues' and 'Question and Answer with Colleagues' were also reported as being of significant use. 'Contacting facilitator/tutor/lecturer', 'Question and Answer with facilitator/tutor/lecturer' and 'Talking to facilitator/tutor/lecturer' were the least useful aspects in the MIB Facebook group.

Interestingly, it is noted that peer to peer activity ranked higher than student-tutor. This data may relate to later tutor data in Chapter 5.

Q4. What was the biggest use you make of Facebook in PB 1501 (MIB) module teaching and learning? Please tick (√) your preference in rank order from 1 – 8

	being the most useful							being the least useful	N/A	Total	Average Rating
	1	2	3	4	5	6	7	8			
Sharing resources and information	53.91% 193	15.92% 57	6.42% 23	5.03% 18	5.03% 18	2.23% 8	2.51% 9	5.59% 20	3.35% 12	358	2.34
Finding information and getting feedback	42.58% 152	19.05% 68	10.08% 36	5.60% 20	8.68% 31	2.52% 9	2.24% 8	5.88% 21	3.36% 12	357	2.63
Contacting colleagues	42.74% 153	16.48% 59	11.73% 42	6.98% 25	6.98% 25	3.35% 12	3.07% 11	4.75% 17	3.91% 14	358	2.64
Talking to colleagues	38.27% 137	13.69% 49	12.85% 46	10.89% 39	8.94% 32	2.79% 10	3.35% 12	4.19% 15	5.03% 18	358	2.80
Question and Answer with colleagues	36.97% 132	16.25% 58	13.17% 47	7.84% 28	8.40% 30	5.04% 18	3.92% 14	4.20% 15	4.20% 15	357	2.86
Contacting tutor	21.29% 76	6.16% 22	8.68% 31	9.52% 34	14.29% 51	8.96% 32	7.28% 26	10.64% 38	13.17% 47	357	4.14
Question and Answer with tutor	14.85% 53	10.92% 39	9.52% 34	9.80% 35	14.85% 53	7.28% 26	9.24% 33	9.80% 35	13.73% 49	357	4.24
Talking to tutor	18.26% 65	6.46% 23	9.55% 34	7.87% 28	16.57% 59	6.74% 24	7.58% 27	12.92% 46	14.04% 50	356	4.32

lower scores indicate higher use

Table 4.1 Facebook Usage in PB 1501 Module

Question 5 determined the opinions of how Facebook influences students' learning experience and opinions. Respondents were presented with 20 statements relating to the essential use of Facebook in teaching and learning and the probable downside of Facebook in teaching and learning with particular regard to MIB philosophy. They were asked to indicate the extent to which they agreed or disagreed with each statement using a 5-point Likert scale. The

percentage of students selecting each of the response options was calculated for each statement, and the results are presented in Table 4.2.

Table 4.2 shows that respondents' views on Facebook were mixed but consistent across the sample. Important features of Facebook included the fact that content can be viewed many times, that students are able to offer their own views on Facebook, that Facebook can remind respondents of due dates, that it can connect students and lecturers and that there is flexibility in using Facebook. Possible drawbacks respondents agreed with included worries concerning internet connection speed and the fact that some people lack internet access. Respondents were less worried that Facebook might not offer deep learning or that use of Facebook might weaken MIB values and beliefs.

This question also provides an opportunity for respondents to give further comments on their views of Facebook. Among the additional comments were mostly positives where students think Facebook could improve communication between lecturer and students and that it encourages teamwork. In addition, students also viewed that it is convenient to upload lecture documents in Facebook. However, there were also a few negative comments where students regarded that Facebook is not suitable for academic purposes and they think that it is overrated.

Q5. Please tick (√) from 1 to 5 to show how much you agree with the following statements:

		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	N/A	Total	Average Rating
a)	I can go over the material as many times as I want using Facebook.	31.92% 113	42.09% 149	22.60% 80	2.54% 9	0.56% 2	0.28% 1	354	1.97
b)	I think I can discuss my ideas, give my opinion, share my findings with the Facebook community	20.62% 73	54.80% 194	22.88% 81	0.85% 3	0.28% 1	0.56% 2	354	2.05
c)	I think that working with Facebook means that I can work when and where I want.	26.55% 94	43.79% 155	24.01% 85	4.52% 16	0.56% 2	0.56% 2	354	2.08
d)	I find that Facebook can make a positive contribution to upholding Brunei National Philosophy – MIB	22.66% 80	37.39% 132	35.98% 127	2.55% 9	1.13% 4	0.28% 1	353	2.22

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e)	I think Facebook changes the way students and lecturers communicate	16.38% 58	47.18% 167	30.79% 109	4.24% 15	0.85% 3	0.56% 2	354	2.26
f)	I enjoy the flexibility of Facebook because it allows me to go at my own pace	11.90% 42	49.58% 175	35.41% 125	2.83% 10	0% 0	0.28% 1	353	2.29
g)	I think Facebook helps me to remember due dates for assignments and dates for exams	24.29% 86	36.44% 129	22.32% 79	13.28% 47	2.26% 8	1.41% 5	354	2.32
h)	I seem to spend lots of time just trying to connect to the internet...then feel pressured because of the internet speed	26.27% 93	31.07% 110	24.29% 86	11.58% 41	4.80% 17	1.98% 7	354	2.36
i)	I think that Facebook can be used effectively in an educational setting	12.43% 44	44.35% 157	34.18% 121	6.78% 24	1.98% 7	0.28% 1	354	2.41
j)	I think it is unfair to use Facebook in education… considering students who have no internet access.	19.77% 70	31.36% 111	35.03% 124	9.04% 32	3.95% 14	0.85% 3	354	2.46
k)	I see that Facebook can enhance civic involvement and strengthen community ties	6.50% 23	42.94% 152	43.79% 155	5.37% 19	0.56% 2	0.85% 3	354	2.50
l)	I think Facebook offers useful educational materials	7.91% 28	31.07% 110	52.26% 185	6.50% 23	1.13% 4	1.13% 4	354	2.61
m)	I receive support from academic and members of the Facebook community in response to my requests for help and encouragement	8.19% 29	33.90% 120	44.63% 158	8.19% 29	1.98% 7	3.11% 11	354	2.61
n)	I can make more effective use of my time when I am learning using Facebook	12.99% 46	23.45% 83	45.76% 162	14.41% 51	3.11% 11	0.28% 1	354	2.71
o)	I can find lecture topics and speakers' hand-outs in Facebook	12.75% 45	30.03% 106	30.59% 108	17.85% 63	5.38% 19	3.40% 12	353	2.72
p)	I find that learning with Facebook does not offer deep learning	8.50% 30	23.51% 83	48.44% 171	16.15% 57	2.55% 9	0.85% 3	353	2.81
q)	I like the way the responsibility for my learning is on me...I am more in control using Facebook.	9.32% 33	19.49% 69	52.26% 185	15.54% 55	2.82% 10	0.56% 2	354	2.83
r)	I think facilitators/lecturers are more contactable using Facebook	8.22% 29	21.25% 75	42.21% 149	15.86% 56	7.65% 27	4.82% 17	353	2.93
s)	I think that Facebook can weaken MIB values and beliefs	6.78% 24	16.67% 59	43.50% 154	25.71% 91	6.21% 22	1.13% 4	354	3.08
t)	I can find Book/ Bibliography /References in Facebook	2.26% 8	6.21% 22	33.62% 119	35.88% 127	15.54% 55	6.50% 23	354	3.60

*lower scores indicate higher use

Table 4.2 Scores for Facebook Opinions

Questions 4 and 5 are related to each other as I see from students' response to question 4 that 'Uploading file documents' (76.75%), then, 'Reading friends' comments' (66.11%) and followed by 'Posting comment' (63.59%) are the most commonly used activities of the Facebook group, while question 5 data demonstrates that 'Sharing resources and information', then 'Finding information and getting feedback', followed by 'Contacting colleagues' are the significant uses of Facebook in MIB modules. This data shows consistent use of Facebook among the students. Findings from question 4 seem to be explained in the response to question 5. For example, students state that they uploaded file documents in order to share resources among the Facebook members, students also stated that they post and read friends' comments in order to gain information and get feedback. Feedback helped with the production of presentation slides and facilitated the exchange of opinions regarding MIB topics.

To further explore students' perceptions open-ended responses are discussed in the next section.

4.3.2. Open-ended questions

Question 6 was an open-ended question that aimed to prompt participants' opinions concerning the positive and negative cultural impact of Facebook on Brunei National Philosophy MIB. With regard to TPACK framework, question 6 aimed to probe in what way technology such as Facebook affects Brunei National Philosophy (TCK). However, responses also show that the students address the pedagogical outlook resulting from the use of Facebook (TPK). In total, there were 329 responses to this question and 33 respondents skipped this question. In what follows, are the interpretation of the answers according to specific themes.

As stated earlier in the methodology chapter, MAXQDA software helped to code the data according to TPACK components. Figure 4.1 displays the distribution of positive and negative perceptions according to TPACK codings. In summary, figure below illustrates that 'Pedagogy

Positive' codings register the highest with 250, followed by 'Technology Negative' which collected 192 codings, then, 'Content Positive' with 163 codings. 'Pedagogy Negative' (141), 1 coding higher than 'Technology Positive' (140) and lastly, the fewest codings (126) were registered by 'Content Negative'.

These show that Facebook has considerable negative feedback from the students rather than positives. However, when it comes to applying it in education, it is better received by the students. Similarly, with regard to its use in promoting MIB, positivity outweighs the negative reactions.
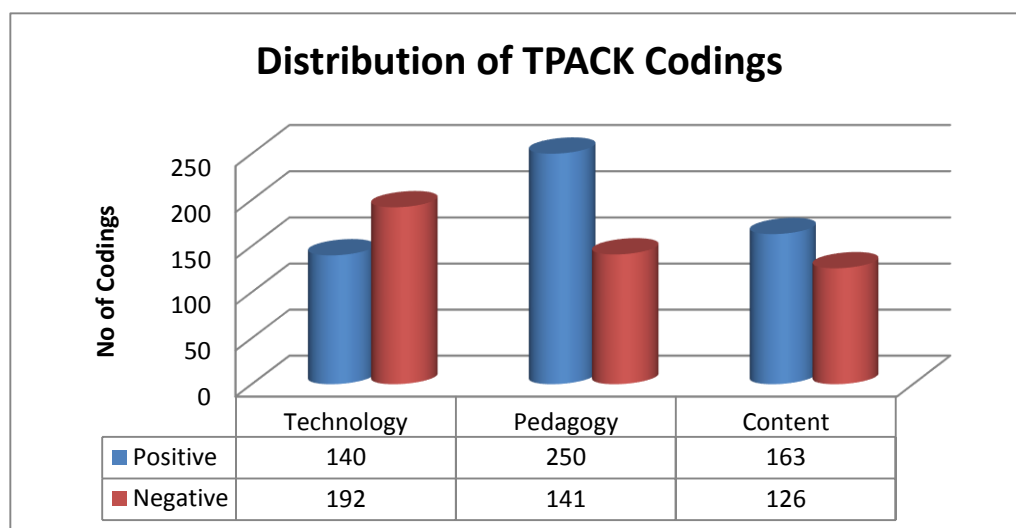
Figure 4.1 Distribution of TPACK Codings

Positive perception themes that came out from the codings are for instance: Pedagogical Affordances, Social Affordances, Technological Affordances and Cultural Affordances. On the other hand, the themes for negative perceptions are: Pedagogical Concerns, Social Concerns, Content Concerns, Technology Concerns and Cultural Concerns. In what follows are the responses of the respondents to closed-ended questions according to themes.

4.3.2.1. Pedagogical affordances

Pedagogical affordances refer to the extent to which the Facebook group could be successfully used as a complementary space for MIB. In this study, the students cited Facebook as a tool to help them communicate with their colleagues, assist them to share MIB information, documents and ideas and discuss the MIB knowledge among themselves in order to acquire new information. Such perceptions were obvious in some of their responses:

> *"The good impact is Facebook users use it to **share opinions, ideas and discussion** between students.*

> *"We can **share knowledge** with others and **gain new information** faster through Facebook, it's also easy to contact others".*

4.3.2.2. Social Affordances

Social affordances are concerned with the amount to which the Facebook group could arrange for a secure, safe and welcoming atmosphere in which the students could conveniently converse and interact with one another. The students identify Facebook as a tool to help students to keep in touch with each other.

A study by Minocha (2009, p.25), which incorporated the adoption of Facebook as a pre-induction supportive instrument has ascertained that it is significantly useful in enhancing the degree of social cohesion. Woodley and Meredith (2012, p.1) has also adopted the notion that Facebook facilitates the interconnection between students and people. The intent of the interaction might be for the provision of emotional, social and academic support in which they demonstrate that secluded or shy students obtain larger benefits from Facebook.

Such perceptions were evident in some of the open-ended responses and specifically students highlighted the ubiquitous nature of the tool in providing that support:

> *"They students can **keep in touch** through Facebook despite being in different places at different times"*

> *"The positive impact is the fact that Facebook is a very efficient medium for people to **stay in touch with each other**, anywhere and anytime".*

There was also observation about an equalising effect of Facebook:

> *The positive impacts are, firstly it helps students who are **shy to speak up** during a discussion, to have their say on Facebook*

4.3.2.3.   Technological affordances

Technological affordances explore the extent to which the Facebook group could be used devoid of technical problems. Woodley and Meredith (2012, p.1) found that Facebook facilitated students with an avenue for an efficient interaction platform thereby enabling enhanced degrees of student engagement.

The mobility of access was further identified by Idris and Wang (2009, p.253) and developments in mobile technologies mean uploading photos and notes, identified by the students in this study as a major affordance, is ever more convenient. In this study, students specifically identified the affordance of convenience, which was not only a matter of not having *'to meet lecturers personally or even colleagues'*, but also emphasised the asynchronous dimension – *'no need to wait until the person is online in order to send them message'*. The sharing of documents was again mentioned and with the digital access replacing the usual practice of photocopying.

> *"Facebook **allows share documents** (e.g. essays, slides, etc.) with colleagues so easier for us to study MIB on our own time. (**No need to ask our friend to photocopy**)*

The benefit of mobile application was furthermore cited, not simply because it provides flexibility of time and place but also because it *'can help and tell you notification'*.

4.3.2.4. Cultural affordances

Cultural affordances refer to the extent to which the Facebook group could provide an MIB environment in which the students could conveniently implement and instil the spirit of MIB in their interaction with one another.

The most common responses were with regard to Facebook being capable of disseminating MIB philosophy. Facebook, according to participants, could be used as a platform to explain to a broader audience its intrinsic nature, its status in Bruneian society and the benefits it imparts. Illustrations of the response were:

> *"Facebook can help **spread the MIB concept to a wider audience**, so others can understand better why Brunei uses MIB as its National Philosophy. The culture can be understood better with the help of Facebook".*

Other cultural affordances are Facebook's capability to increase MIB knowledge, bring about MIB awareness and encourage information sharing. Students considered that Facebook helped them increase their MIB knowledge and awareness of cultural and religious information that was shared in the Facebook group. Student stated in their answers:

> *"Positive impact is that we are **able to share and get to know our own culture**. As a non-Muslim, I understand a little bit more regarding the Muslim festivals when my friends are posting stories about them".*

> *"People post videos on Islamic/cultural matters, this may encourage those who always use Facebook to click on it and thus, may **teach/remind them the teaching/values of Islamic culture**"*

Facebook has also the capability to strengthen relationships among people, which is one of the values enshrined in the MIB philosophy. Students stated that:

> "*The positive impact is that it **allows to strengthen relationship, the familial and friendly ones** and this is an aspect of the MIB philosophy, which is to keep close ties among people"*

> *"Facebook **strengthen relationship between races**".*

4.3.2.5. Students concerns

Students expressed their concerned on using Facebook as a complementary tool in the MIB course. Their concern relates to pedagogical, social, content, technology and cultural aspects.

4.3.2.5.1. Pedagogical concern

The most common concerns among the students regarding Facebook were the probability that Facebook can lead people to being distracted from their daily learning activities.

> *"People can easily misuse Facebook for other unnecessary and unrelated things, hence, **distracting** them and directing their priority elsewhere"*

It also mentioned the possibility of promoting procrastination among users. Hence, students reflected that Facebook caused them to waste much of their time doing other things than studying and getting distracted while studying could result in inattention. Among students' responses regarding these were:

> *"Facebook has the applications that can distract a person from doing their work (**procrastination**)"*

> *"People tend **to do other things** on Facebook even during intense discussion, like chatting with other people, browsing online stores and even checking other people's accounts and pictures"*

The likelihood of students misusing it for '*chatting about inappropriate matters'*, '*debating on confidential issues'*, '*reading or posting unnecessary gossip'* were furthermore cited by students as the negative side of Facebook that become their main concern. Other literature such as Jaffar (2014) and Wang (2012) maintained that the use of Facebook to complement the learning process is likely to cause more harm than the intended good. Facebook is likely to encourage procrastination, thus distract students from learning effectively. The rationale is that Facebook contains material which is high in entertainment and social aspects.

4.3.2.5.2.   Social concern

The non-verbal communication between teachers and colleagues also became a matter of concern for students as they felt that they might experience *'loss sense of personal communication with colleagues and lecturers'* because of relying too much on virtual space. They indicate that communicating through a machine is not nearly the same as being face to face with someone and in a way, students and teachers will lose face to face communication abilities.

4.3.2.5.3.   Content concern

The content of Facebook that offers inappropriate images to be viewed by users was the negative impact of Facebook that worries students. They said that revealing pictures that were uploaded frequently could be seen in the Facebook.

> *"The negative impact that we often see in Facebook is that some of the **pictures being uploaded are revealing**".*

The obtainability of unreliable information, incorrect views and the spread of false, abusive and humiliating information found on Facebook were also cited as the harmful impact of Facebook in MIB course.

> *"Not all information are correct".*
> *"Rumours, insults, stigmatisation spread more quickly"*

The students observe the harmful and false information that is available as *'a bad influence that could interfere with the MIB image as the national philosophy'*.

In addition, depending too much on the reliability of content of Facebook information that is available as educational resources, could also provide a negative impact on students' attitude in terms of their indolence to search for further sources of knowledge.

> *"The negative impact would be that the availability of resources in Facebook makes us lazy to search for other existing sources".*

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4.3.2.5.4.   Technology concern

Privacy issues in which friends could follow their personal life were also among the feedback from the respondents in terms of the adverse aspects of Facebook. An example of student response was:

> *"Social **privacy is lost** due to adding up friends. People tend to get to stalk your life on what you do and where you are"*

Privacy is probably the biggest controversial issue Facebook has confronted within the major concerns regarding the privacy and security issues that have been associated with its use. (Freishtat and Sandlin, 2010; Woodley and Meredith, 2012; Friesen and Lowe, 2012; Jaffar, 2014). In relation to the learning process, academic information can easily be accessed and corrupted by hackers, thus reducing the quality of academic process which it was meant to boost. People have tendencies to share pictures and pieces of information with specific groups of people. In this context, students are likely to feel uneasy about their lecturers being able to invade their personal spaces in the social media.

Another concern in relation to technological constrains, is the burden for students who do not have internet access because of its charge, and this leads to the occurrence of inactive members in the Facebook groups. Following are the examples of the response:

> *"Become a **burden to people** for not knowing important information notified via Facebook if there is any as some students did not have internet connection."*

> *"**Not** all members are **active** on Facebook (which relies on a phone connection which is costly). Not all members have good **internet connection** (hard to upload work or contact other members)".*

4.3.2.5.5.   Cultural concern

Students also observed that Facebook could weaken the Bruneian Malay language. '*Students discuss in "English" on Facebook instead of making use of the "Malay" language'* was cited by the students as a negative impact of Facebook to MIB philosophy, as mostly using English

in their discussion could *'weaken their ability to speak Malay which is the official language of Brunei'*. They also quoted that using the language of SMS that was frequently found in Facebook could *'damage the Malay language'*

They are concerned about the negative impact of Facebook on one's morale and values. They mentioned that the recurrent use of bad and harsh language such as profanity *'lead to morals and values weakening'.* They also considered that using Facebook inappropriately could also increase '*moral and social collapse'* among Facebook users.

Furthermore, the students viewed that the characteristic of social media that allow openness to express opinions which might be controversial or threatening could result in dissension.

> *"Freedom to express thinking may cause disagreement among Bruneians which will lead to fighting which is not in accordance with Malay conduct"*

As a final point, students also specified the threats of Facebook that might contribute to a harmful impact on MIB Philosophy in terms of its ability to expose foreign culture material and the availability of a negative influence on MIB. This could be viewed in the following responses:

> *"Millions of people use Facebook so it is not surprising that Bruneians **may be influenced** by the behaviours/language/way of thinking of other races/religions. It all depends on an individual's attitude and how strong he/she holds on to his/her principles".*

> *"Facebook as any other type of social networking media brings a negative impact. Influence from the **outside world** especially from **cultures** that differ from ours could easily be conveyed through Facebook. As we all know nowadays the youth are usually the ones who get **influenced easily**".*

These concerns raised by the students shed light on distinctive issues of Facebook in relation to MIB learning (TPK) and the issues of potential challenges and threats to MIB philosophy (TCK). The way that technology was implemented by students could lead to good or bad effect. Thus, supervision and facilitation on the part of teachers are important to lead students to maintain an appropriate attitude while using Facebook. The observation and content

analysis of the Facebook group in the next chapter will get a sense of how teachers facilitate students in their group.

4.4. SUMMARY

This chapter explore ways of using the Facebook group among MIB students based on their experiences in the MIB course and investigate students' perceptions of the potential challenges of social media in the context of the MIB philosophy. The key idea of this finding is that students find peer-to-peer interactions on Facebook potentially more valuable than teacher-to-student as it is noted that peer to peer activity ranked higher than student-tutor.

The findings also confirm that the Facebook group has the potential to be used as an complementary space for MIB module as it has important features that can support the teaching and learning particularly insofar as content can be viewed many times, Facebook can remind respondents of due dates, connect students and teachers, provide a place for student and lecturer to communicate as well as holding discussions and sharing MIB module information. Other than the pedagogical affordances, there are social, technological and cultural affordances which allow members to communicate and interact with one another using Facebook which has convenient communication tools, is an efficient medium and also is capable of disseminating MIB philosophy.

However, this chapter also reveals that using the Facebook group as a complementary space has a number of constraints as well, particularly in the issues of MIB philosophy. The strong social connectivity of Facebook is a double-edged sword as it enables students to easily communicate and interact with colleagues and the teacher; however, it fails to provide a safe technological, pedagogical, content, social, and cultural environment for students. For instance in relation to the MIB Philosophy, foreign culture exposure where the students are exposed to information that is contradictory and has a negative MIB influence are the issues which are the potentially greatest cultural concern and need to be addressed. Another case in point is the technological concern in relation to privacy issues as Facebook is a social

networking site in which its significant position as providing complementary tools for learning is still indistinct. Another reason to claim that Facebook is not a safe environment in content trustworthiness aspect is the fact that it could have unreliable information, incorrect views and could promote the spread of false news. Additionally, pedagogical challenges of Facebooks are its distracting features and how it can be easily misused and promote procrastination which leads to students wasting a lot of their time in pursuing non-educational activities.

In relation to the TPACK Framework, it could be argued that the MIB course (CK) has helped the students see how MIB pedagogical practices can be used in Facebook (TPK). To some extent, Facebook and MIB (TCK) could be brought together in the course of learning MIB (PK) although students recognise tensions between them. These findings could give guidance to teachers as to whether Facebook is best suited for addressing MIB teaching and learning (TPK). This suggests Facebook as a potential focus for teacher activity. This data therefore acts as a background to exploring teacher thinking.

CHAPTER 5: TEACHER FACILITATION ON STUDENT ENGAGEMENT

5.1. INTRODUCTION

In this chapter, I am investigating teachers' teaching and students' learning experiences using Facebook. In particular, this addresses the second research question '*How do teachers facilitate engagement in the Facebook setting in the context of the MIB course?'.* This question contains two sub question: a) Is there evidence of cognitive and social engagement? b) How do teacher practices facilitate such engagement?.

In this chapter, I intend to show the variety of information sharing between students outside the classroom in order to complement the delivery of MIB content in lectures and tutorial classes. Teachers and their students that took part in the observation and content analysis were Khairul, Ariffin, Hilmi and Liza. Khairul facilitated four MIB Facebook groups (Group 6, 7, 8 and 9) with each group having 11 members including him as a tutorial class teacher. Ariffin facilitated four MIB Facebook groups in which three groups, Group 2, Group 4 and Group 5 had 11 members whereas Group 1 had 12. Hilmi was only facilitating one MIB Facebook group that consisted of 11 people. Similarly, Liza also facilitated one MIB Facebook group that consisted of 19 members.

From the data collection of the ten Facebook groups, I could produce information on teaching and learning activities as well as findings as to how a teacher might facilitate student engagement.

I employed categories suggested by Garrison (2011) as a guide for the content analysis of the MIB Facebook group transcripts in order to examine how teachers facilitate engagement in the Facebook setting in the context of the MIB course. I initially coded and categorised activities among the teachers and the students in the Facebook groups with categories suggested by Garrison (2011). Then I observed and discussed the coded text in order to

generate a) information on social presence gained from looking into teachers' and students' shared communication and progressive development of personal and affective relationship b) evidence of cognitive presence in which students show their capability to construct and confirm meaning through persistent thinking and discourse and c) teaching presence data in which teachers design, facilitate and direct cognitive and social processes of students for the purpose of realizing personally meaningful and educationally worthwhile learning outcomes.

In order to explore students' engagement, I looked for social and cognitive presence of students provided by Garrison (2011) as a point of reference. As has been discussed in the literature review in Chapter 2, engagement (as defined by Trowler, 2010) has three dimensions, which involve behavioural, emotional and cognitive engagement. These three dimensions of engagement are in line with Garrison's (2011) social presence and cognitive presence categories and indicators. To explore how teachers teach students in the Facebook space, I searched for teacher teaching presence also using Garrison's (2011) categories as a guide.

5.2. FINDINGS

In the following section, the quantitative and qualitative findings of the MIB Facebook groups are presented. The detailed accounts of the findings are discussed.

5.2.1.Quantitative Findings

At this stage, I provide descriptive information of activities conducted by members of the MIB Facebook groups, both students and teachers to obtain general findings. I calculate the monthly activities of each group's members with four different teachers (Khairul, Ariffin, Hilmi and Liza). Analysis at this point would be quantitative, focusing on counting monthly regularities of posting messages, adding comments, clicking likes, sharing photos or videos and uploading files. My intention of this analysis was to develop a broad picture of Facebook usage patterns on this course, and confirm that what students said in the questionnaire were

their practices were those seen in reality. In addition, I intend to see whether usage patterns differed between groups as they were all using the same Facebook technology and how the differences could then be attributed to differences in pedagogy or other factors.

5.2.1.1.   Khairul's MIB Facebook Group

Khairul facilitated four MIB Facebook groups (Group 6, 7, 8 and 9) with each group having 11 members including him as a tutorial class teacher. Figure 5.1 shows that Group 7 contributed the most with 260 postings and 1308 comments. This was followed by Group 9 (258 postings and 549 comments), and then Group 6 through 91 postings and 187 comments. Group 8 showed the least participation and engagement in the MIB Facebook groups under Khairul (84 postings and 80 comments).

MIB Facebook Group Activities

	Group 6	Group 7	Group 8	Group 9
Postings	91	260	84	258
Comments	187	1308	80	549
Likes	3	428	1	4
Photos/Videos	8	8	6	2
Files	20	78	3	101
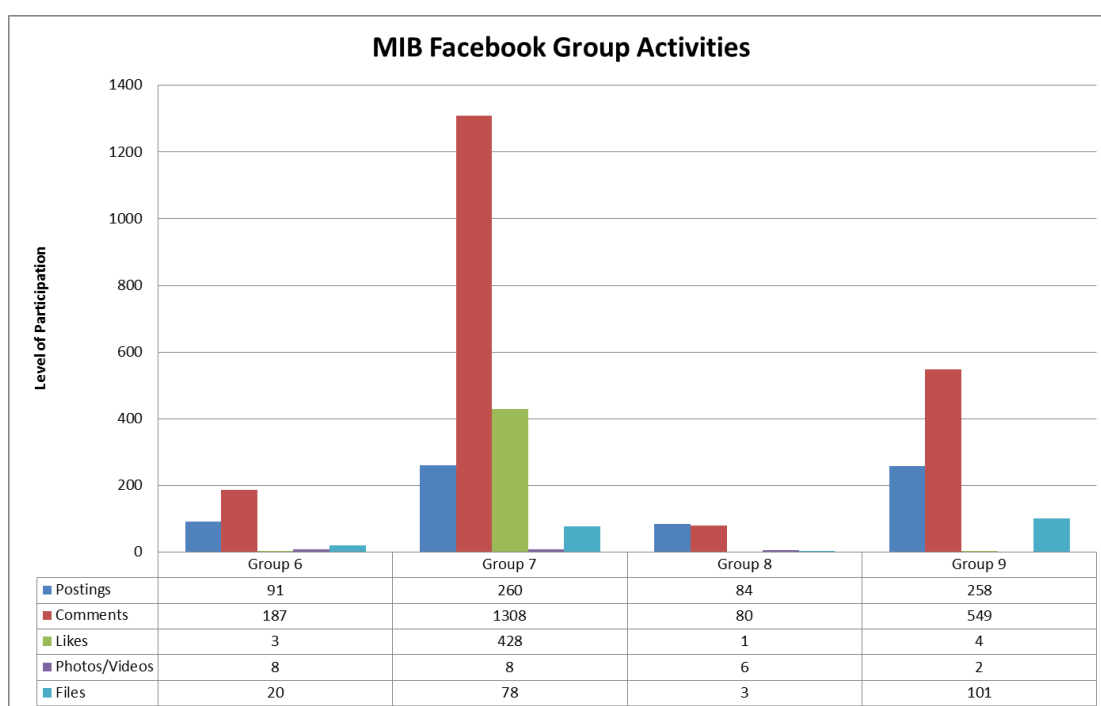
Figure 5.1 Level of Participation (Khairul's groups)
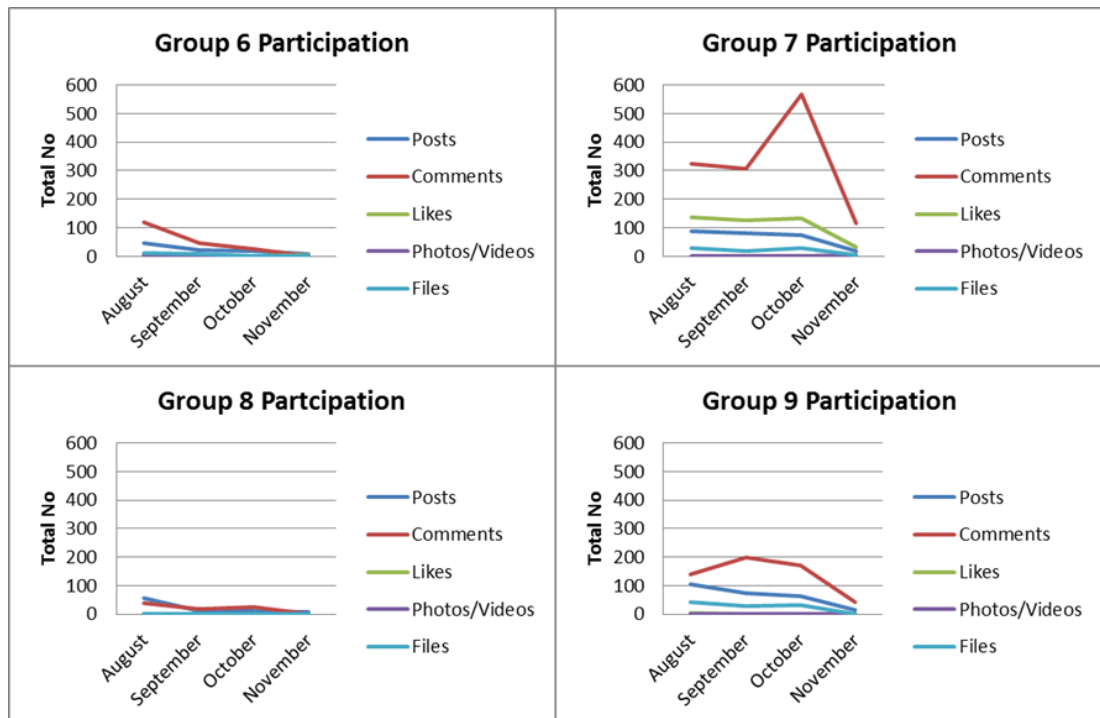
Figure 5.2 Average rate of group participation by month (Khairul's groups)

The rate of group members' participation during the first month of each group was comparably high (*see figure 5.2*). Khairul at the start of each Facebook group creates a social climate that encourages students' participation, for example, applying affective expression (i.e. hahah) to his messages so that students feel relaxed. Students were also likely to post frequent short messages in the first month to establish their social presence in the community by communicating and asking questions and creating a warm and welcoming learning environment, for example by employing the use of humour in their messages. Afterwards, participation became less frequent for Group 6 and Group 8 over the next few months. However, Groups 7 and 9's participation rate became higher from September to October. The rate of participation shows the lowest reading in November when the test took place.
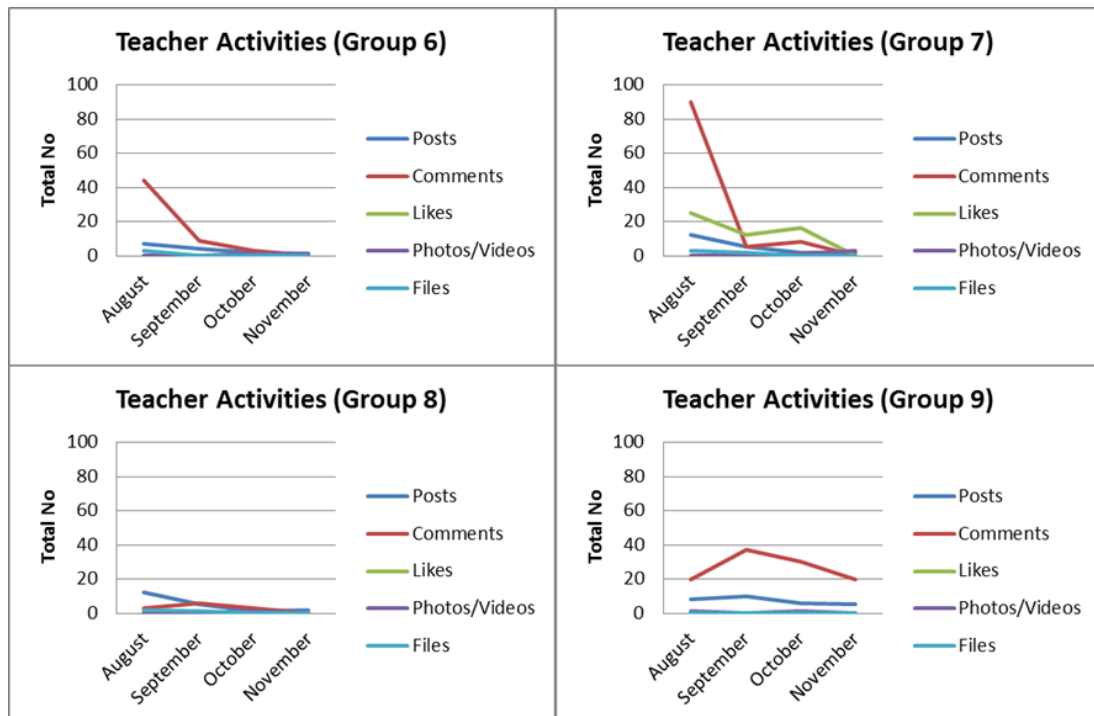
Figure 5.3 Average number of teacher activities (Khairul) by month

As an MIB module tutorial teacher for Groups 6, 7, 8 and 9, Khairul makes some contribution in each group. In the first month, most of the teaching presence element demonstrated by Khairul was in designing the module (e.g. listing group members), setting the curriculum (e.g. assignment format, presentation arrangement) and facilitating students working on their assignment through discussion (more illustration of his teaching presence is discussed in qualitative findings section). Figure 5.3 also shows that the average number of teacher activities was high in the first two months of each group and gradually declined at the end of the module except for Group 9. The Group 9 chart shows that Khairul's contribution carried on from August until November. Unlike in the case of Groups 6, 7 and 8, Khairul still posted some comments with most of them assisting the students with MIB content related discussion. According to my interview with Khairul regarding the decline, he noticed that initially students saw the value of getting and sharing information, learning from discussion and getting feedback from group members, but later did not feel the need to participate so much. It corresponds to my observation of Khairul's Facebook groups, which suggests that students at the end of the semester participate less as they already know what to do in their coursework

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and have no need to ask many questions regarding the format, feeling confident in their progress. At the end, they only shared the document that they were writing.

5.2.1.2.   Ariffin's MIB Facebook Group

Similar to Khairul, Ariffin facilitated four MIB Facebook groups in which three groups, Group 2, Group 4 and Group 5 had 11 members whereas Group 1 had 12. Figure 5.4 indicates that Group 2 contributed the most with 170 postings and 237 comments, followed by Group 1 (122 postings and 135 comments), and then Group 5 through 48 postings and 112 comments. Group 4 shows the least participation with not too much difference with the latter group under Ariffin (50 postings and 69 comments).

MIB Facebook Group Activities

	Group 1	Group 2	Group 4	Group 5
■ Postings	122	170	50	48
■ Comments	135	237	69	112
■ Likes	6	27	6	1
■ Photos/Videos	5	0	0	0
■ Files	80	54	5	4
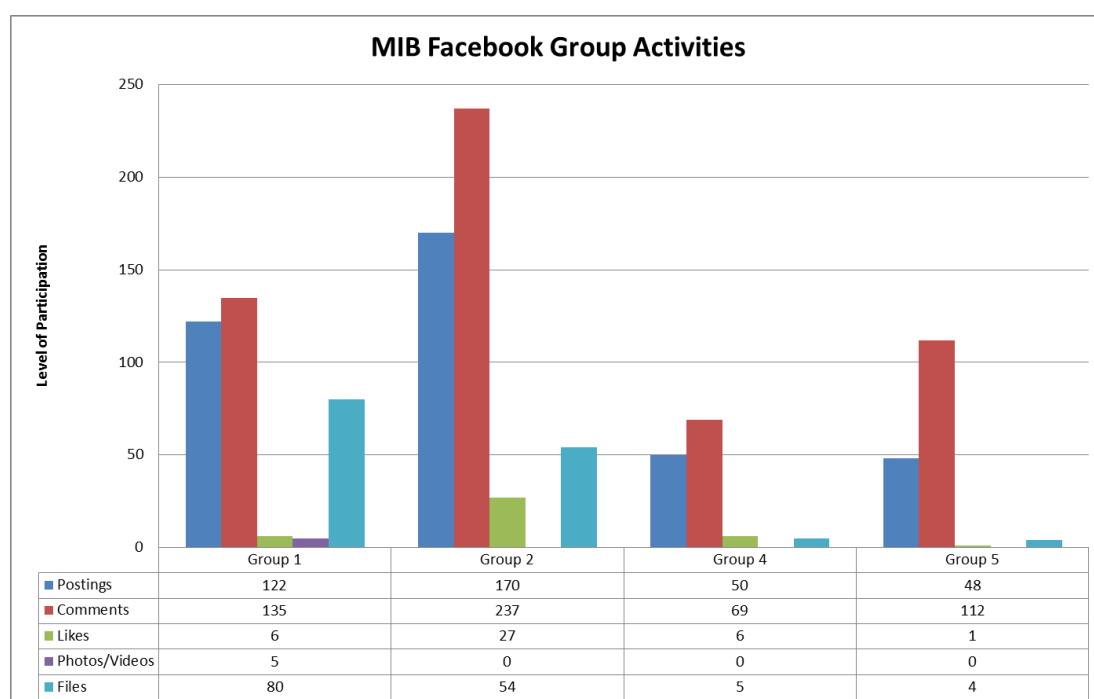
Figure 5.4 Level of Participation (Ariffin's Groups)
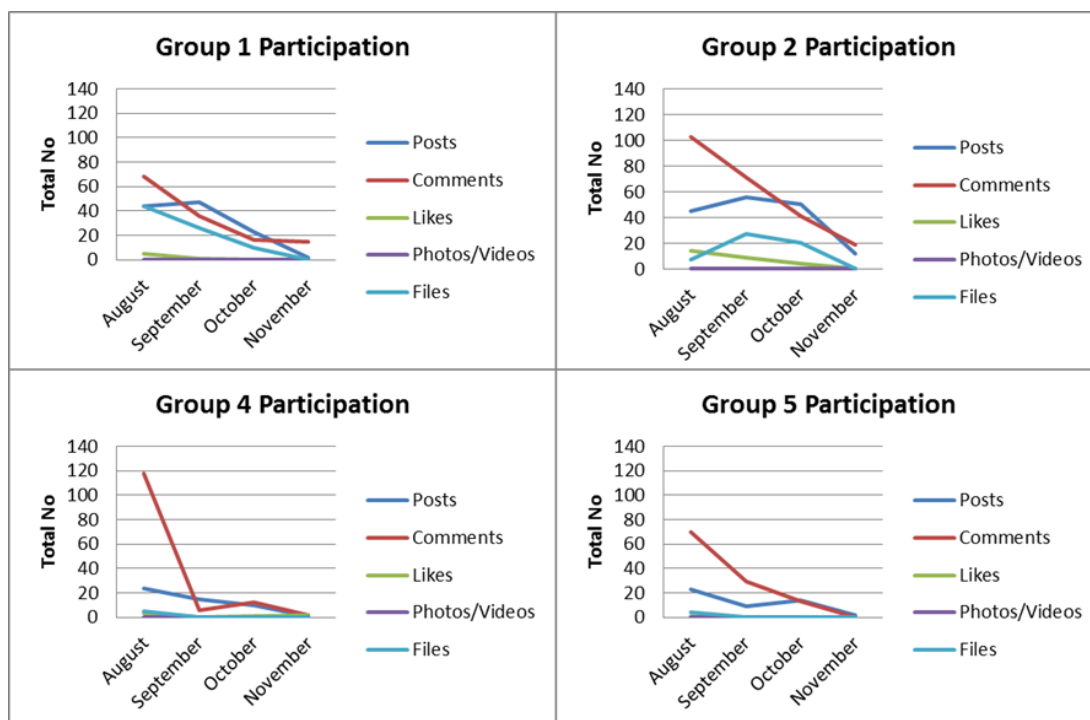
Figure 5.5 Average rate of group participation by month (Ariffin's Groups)

The rate of participation of each group in August was identically high (*see figure 5.5*). To some extent, similar patterns of group participation were found in each of the four groups where the findings indicate the most contribution was in the first month of August but then declined and reached the lowest point in the last month of the semester in November. The reason for the decline in his groups' participation according to my interview with Ariffin is due to the nature of the work; for example most of the students have finished their (individual) task early and the only task remaining is the group work. Another reason was the imminence of examinations.

Some monthly contributions from Ariffin could be found in the following figure (*see figure 5.6*). Most of the teaching presence of the teacher found in the Facebook conversation was associated more with direct instruction on specific content issues (such as diagnosing misconceptions and explanatory feedback) as well as facilitating on module design and organization (for instance announcing weekly presenters, group members, examination date and so forth).
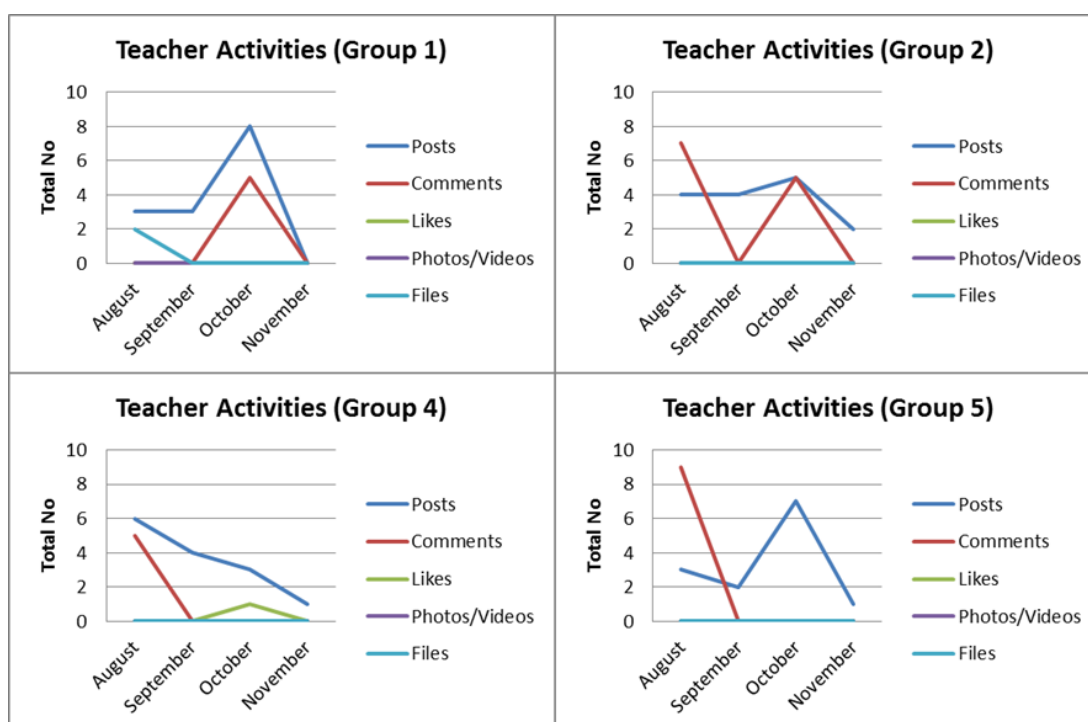
Figure 5.6 Average number of teacher activities (Ariffin) by month

The teaching activities of the teacher were moderately low in the first month of Group 1. However, they became much higher in October and dropped by the end of November. Dissimilarly, the teacher's intervention for Group 2, Group 4 and Group 5 was high in the first month of August and gradually declined in September, and was back to normal in October but gradually declined again until the end of the module in the month of November. My interview with him suggests that he would only participate if he thought that he needed to. He left his students to learn by themselves, but commented that although he did not participate he actually read all the discussion of his students.

5.2.1.3.   Hilmi's MIB Facebook Group

Unlike Khairul and Ariffin, Hilmi was only facilitating one MIB Facebook group that consisted of 11 people. Based on the findings as shown in Figure 7, Group 10 participation among the students can be considered active. However, individual data analysis shows that one student did not contribute in the Facebook group. As stated by Hilmi in the interview, that student did

not have access to the internet which explained his lack of contribution. The bar chart below (*see figure 5.7*) shows 144 postings and 373 comments with 24 likes, 2 photos/videos sharing and 101 files uploaded by the members.
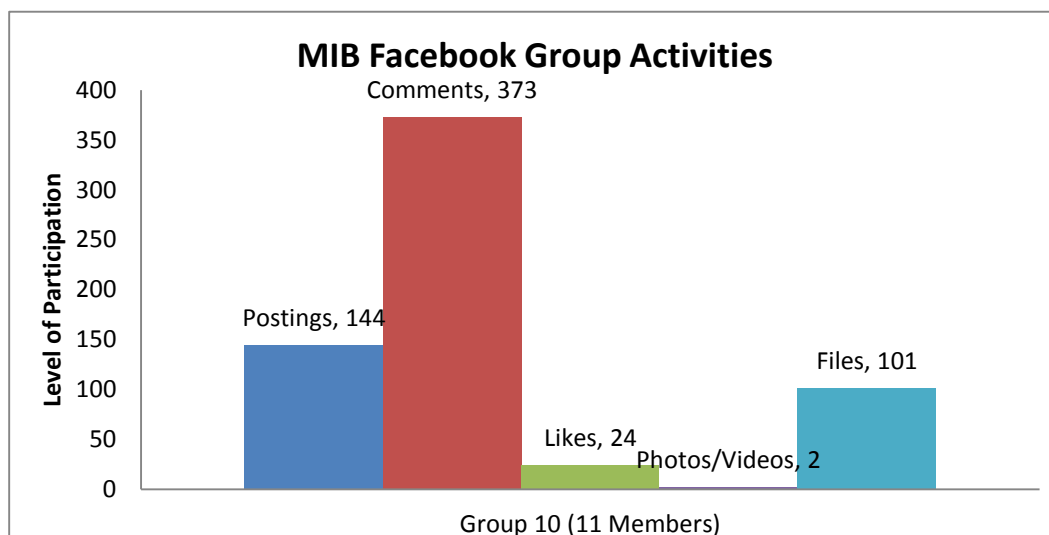
Figure 5.7 Level of Participation (Hilmi's group)

Figure 5.8 shows that the average rate of group participation in group 10 member was at its peak in August, the first month of the semester. However, the contribution rate of the group started dropping gradually from September until the end when the examination took place in November. As explained by Hilmi in the interview, the reason for high participation in the early semester was due to their early enthusiasm which was gradually eroded by the pressure of other work, such as other modular assignments and fieldwork. He stated that students had more free time available at the beginning, enabling them to participate more readily compared to the end of the module.

From Figure 5.9, I saw that Hilmi, as the tutorial class teacher of this group, undertook the smallest amount of teaching activities in the MIB Facebook group that he facilitated, compared to the others taking part in the study with only one post and two comments. The Facebook data shows that the teacher participation was in the form of social presence rather than teaching presence such as making compliments, greetings and asking questions. Hilmi's response to my question regarding the reason for his small contribution in the Facebook group

was due to the fact that he was more involved in mentoring them elsewhere such as in the WhatsApp group and in tutorial class. That explained his small contribution.
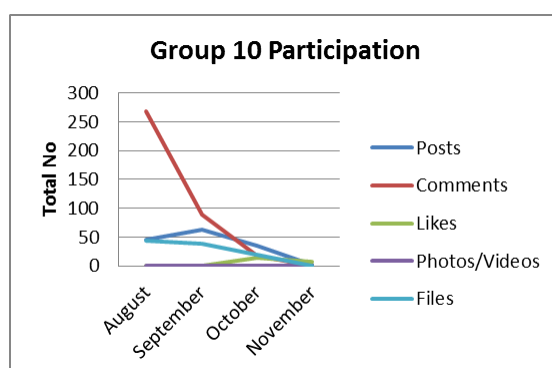
| Figure 5.8 Level of Participation (Hilmi's group) | Figure 5.9 Average number of teacher activities (Hilmi) by month |
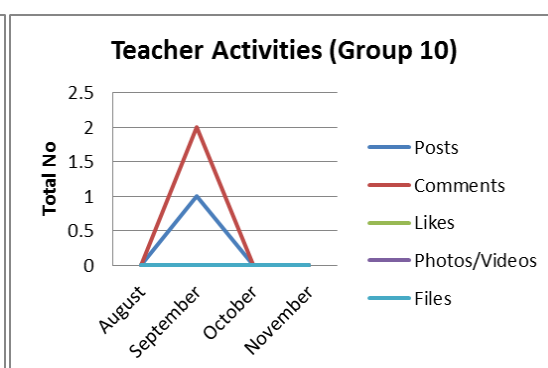
5.2.1.4.   Liza's MIB Facebook Group

Like Hilmi, Liza facilitated one MIB Facebook group that consisted of 19 members. The bar chart in Figure 5.10 demonstrates that Group 3 posted 32 postings and 42 comments, clicked 8 likes, shared no photos or videos and uploaded 5 files. 14 students contributed in the Facebook group while 5 others did not participate. Liza explained that she would make sure that all students joined the Facebook group she created, but some of them left the Facebook group and this led to the number of students that were recorded inactive in the study of her Facebook group. Moreover, her in-service students mostly did not have a Facebook account and were using WhatsApp for communication. This explained why some of the students did not join and participate in the Facebook group.
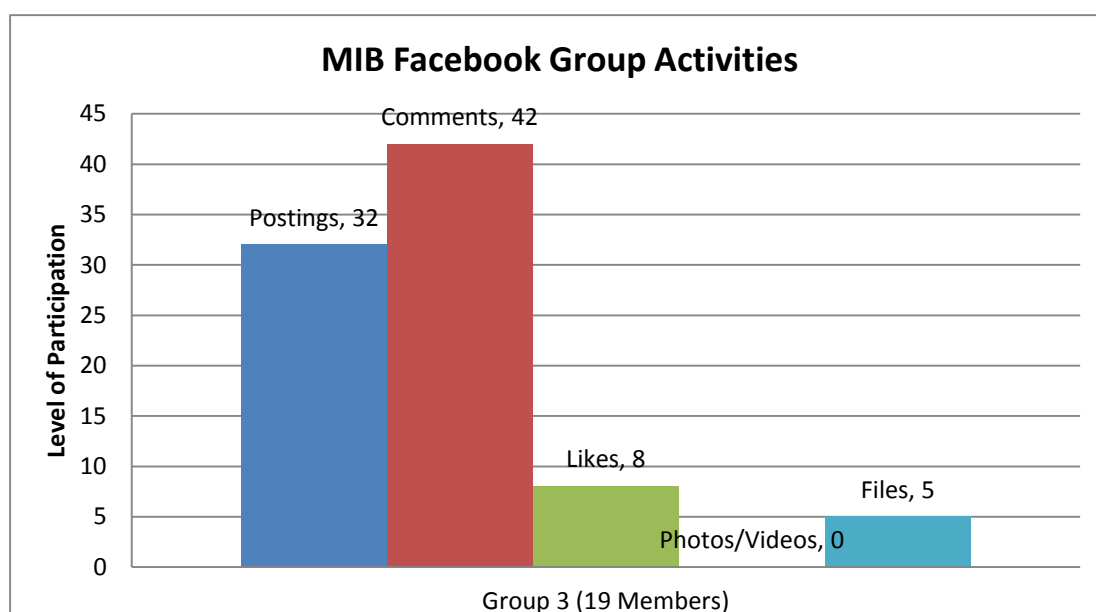
Figure 5.10 Level of Participation (Liza's group)

Based on the results of the analysis, the rate of group participation during August was high (*see figure 5.11*). However, the contribution rate of Group 3 started dropping in September. Subsequently, the number of activities among the group member turned out to be a bit higher in October. The rate of contribution declined steadily around November when the participation rate was the lowest. The reason for the significantly reduced percentage of students' participation in Facebook at the end of the semester according to Liza's interview was the early timing of the test. She said students were only active, having discussion and asking questions in the early part of August and after the test was conducted, students were only focused on tutorial tasks which students thought did not require them to participate in the Facebook group.

The teaching presence of the teacher was at the highest in August (*see figure 5.12*). However, it gradually dropped by the end of November. Most of the teaching presence in the Facebook conversation was related more to the teacher designing and organizing the module (for instance providing examination date reminders, distributing a list of group members, announcing weekly presenters as well as posting weekly topics and so forth). There was also a small amount of conversation concerning the teacher facilitating the students to reach understanding as well as direct instructions in terms of presenting research tasks to students.

Liza stated this was because students were inclined to send her private messages in WhatsApp, rather than asking the group, so that they could speak confidentially. According to Liza, some students refused to share MIB knowledge among their friends as they worried their ideas would be taken by others to be written for their assignments and this would contribute to distribution of their grades.
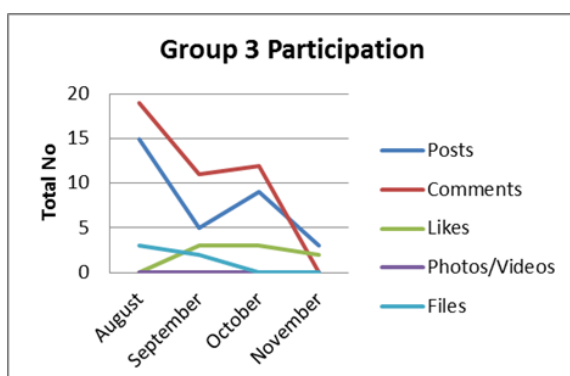
Figure 5.11 Average number of group participation by month (Liza group)
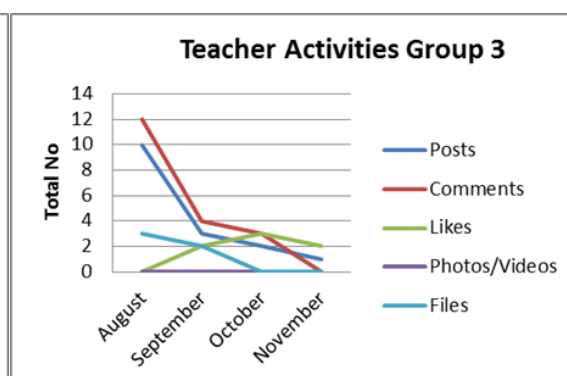
Figure 5.12 Average number of teacher activities (Liza) by month

5.2.2.Summary

The quantitative data has shown some common patterns of usage between students in the groups from different tutors. Some groups are observed having high participation than others. It is perceived that teacher participation is not the main reason for students to actively participate or not because in this study the teachers showed a varied level of participation. It is mainly the matter of inclination of the students themselves to use the potential of social media to help their learning. For instance, Khairul is noticed to show more participation than other tutors do in the Facebook group and it is expected that his students would demonstrate a good level of participation. Liza and Ariffin's data shows an acceptable rate of participation. Liza was seen to have dealt with her students using a different medium of social media, namely WhatsApp. Ariffin's indicated that he would only attend if he needed to but he could still read the posts of students without being visibly a participant. Hilmi on the other hand participated the least. However, it is also interesting to highlight that his students conducted themselves well in holding their own discussion. The data in chapter 4 indicates that students

find peer-to-peer interactions on Facebook potentially more valuable than teacher-to-student, and this could explain Hilmi's group context. This quantitative data illustrates the varying modes of participation between teachers in each of their groups. This also suggest that not only teachers but students themselves are developing knowledge about how to use this technology. They are discovering a Facebook application in the educational setting and working out ways of using it for learning independent of what the teachers want or what the teachers are practicing in this learning environment. It can be argued that students are developing their own TK (and the cognates: TPK and TCK).

5.2.3. Qualitative Findings

In this section, I present the qualitative findings of the Facebook content analysis with some quotes extracted from the MIB Facebook Group Transcripts. I show how social presence, cognitive presence and teaching presence were conveyed and developed among students and teachers. In particular, these excerpts were used to illustrate various scenarios in which social presence, cognitive presence and teaching presence indicators suggested by Garrison (2011) were applied. Therefore, to protect the students' anonymity, I replaced their actual Facebook profile names by the initial letter of each name.

5.2.3.1.   Khairul (Groups 6, 7, 8 and 9)

Khairul facilitates four MIB private Facebook groups in which all the groups comprise 11 members, including him as the teacher. All of the groups were created by the students on the 11th, 12th and 13th of August 2012.

The following example is the initial conversation of Khairul at the start of each Facebook group that makes evident that he creates a social climate that encourages students' participation. Extracts 1 and 2 illustrate that Khairul was asking questions, for example *'Do you guys know who have not joined this group?'* and referring to his students' messages, for instance *'It's easier if the group is complete'* when he saw one of his students renamed the group as "MIB

Group 13A". From these examples, he displays open communication category of social presence.

Khairul also demonstrates the use of interpersonal communication such as showing emotion and humour to make the message friendly and personal. For example in extract 2, he mentioned *'but some have not accepted a friend request because they have to apply for permission from their boyfriend... hahaha you know this is their first year in UBD haha''* which display he is teasing his students and the mention of '*hahaha*' message is the expression of his emotion which falls under affective expression'.

Extract 1 (Group 8)	Social Presence Indicator
Khairul Do you guys know who have not joined this group? Like · Comment · Follow post · 13 August at 19:12	• Social Presence/Open Communication/ Asking Question
KZ our presenter haqqim addeen 13 August at 19:16 • Like	• Social Presence/Open Communication/ Referring to others message
Khairul oh oh .. 13 August at 19:18 · Like	• Social Presence/Interpersonal Communication/ Affective Expression

Extract 2 (Group 6)	Social Presence Indicator
SP renamed the group "MIB Group 13 A". Like · Comment · Follow post · 12 August at 12:05 **Khairul** likes this. Seen by everyone	
Khairul It's easier if the group is complete 12 August at 12:11 · Like	• Social Presence/Open Communication/ Referring to others message
SP Sir, you invite others' Facebook okay..Hahaha 12 August at 12:12 · Like	• Social Presence/Interpersonal Communication/Affective expression
Khairul I have all the list... But I left Group A and B list at UBD..hahaha 12 August at 12:14 · Like	• Social Presence/Open Communication/ Referring to others message • Social Presence/Interpersonal Communication/ Affective Expression
SP okayyyyyy hahahahah so what to do now? 12 August at 12:19 · Like	• Social Presence/Interpersonal Communication/Affective expression

Khairul I'll try. but some have not accepted a friend request because they have to apply for permission from their boyfriend.. hahaha you know this is their first year in UBD haha 12 August at 12:20 · Like	• Social Presence/Open Communication/ Referring to others message • <mark>Social Presence/ Interpersonal Communication /Use of humour</mark> • Social Presence/ Interpersonal Communication / Affective Expression
SP HAHAHAHA 12 August at 12:24 · Like	• Social Presence/Interpersonal Communication/Affective expression
Khairul some FB name could not be found 12 August at 12:29 · Like	• Social Presence/Open Communication/ Referring to others message

The extracts shows that social presence helped lessen the psychological gap between teachers and students. Eventually students feel comfortable and establish a learning environment that attracts students to participate. For example, in extract 2 students also demonstrate affective expressions such as *'okayyyyyy hahahahah so what to do now?'.* Students appreciate his emotion of amusement and he includes repetitious spelling to show his feeling.

Many research studies (e.g. Richardson and Swan, 2003) have highlighted the ability of a teacher's social presence to enable the realization of learning outcomes. It has been postulated that establishing a sense of social presence might instigate feelings that will enhance the potential for realization of the learning outcomes such as creating a personal relationship and a welcoming learning space between teachers and their students. Such feelings have been found to motivate class participation although a display of such nonverbal indications as smiling and gestures which can be found in face-to-face contact are missing in virtual contexts. Teachers can express their socio-emotional content and sense of presence via text-based interaction.

The socio-emotional content that is demonstrated by Khairul in the previous example such as using humour and affective expression in the early weeks of semester to some extent creates a hospitable learning space and establishes a personal connection between teacher-students. Furthermore, students may not be sure what they are supposed to do and feel confused during the early stages of virtual learning (Harasim *et al.,* 2001). Therefore, it is pertinent for the

teacher to create a learning environment via social presence that fashions an enabling environment for increased student participation

Nevertheless, extract 3 shows Khairul wanted to reinforce the sense of being the teacher in Facebook. In other words, Khairul as a teacher wants to be in control of the group by asking students if they could put him as administrator of the group. See extract below:

Extract 3 (Group 9)	Social Presence Indicator
Khairul Hi, could you make me admin in this group account.. Like • Comment • Follow post • 15 August at 16:48 Seen by everyone	• Social Presence/Open Communication/ Asking Question
KY Hi Sir! hehe ofcourse sir, for you anything is possible hehehehe yeah we already put you as admin please take note. 15 August at 19:05 · Like	• Social Presence/Open Communication/ Referring to others message • Social Presence/Interpersonal Communication/ Use of humor
Khairul Hehe alright tqvm 15 August at 19:20 via mobile · Like	• Social Presence/Interpersonal Communication/ Affective Expression

On another review of the Facebook discussions, another interactive indicator that the teacher employed regularly throughout the module was inquiry. The teacher performed this function mainly to stimulate critical thinking or develop constructive arguments among students. The qualitative data suggested that the teacher asked students a challenging question to stir up new ideas and allow them to carry on discussions. For example in extract 4, in reply to his students' post, Khairul prompts the students with a question *'What should be done by the king to express his justice to his people?* and after that again posts another text providing students with facts for students to think about . This was aimed at enabling students to develop their own explanations or new solutions to their problems and move forward to a higher level of cognitive development. As stated by Garrison (2011, p. 51-53), the first phase of cognitive presence is the triggering event that is associated with conceptualizing a problem or issue; the second phase is exploration, that is searching for relevant information and ideas; the third phase is integration, that is the process of constructing a meaningful solution or explanation; and the fourth phase which is the highest phase is resolution, that is critically assessing the viability of the proposed solution through direct or vicarious application. The following example

from group 6 shows how the teacher performed a facilitative role using inquiry to encourage such a learning process (*see extract 4*).

Extract 4 (Group 6)	Social, Cognitive & Teaching Presence Indicator
NH Hello.. as the chairman of this week, I am here to post this week's topic in case anyone of you forgot. 'The King must be fair, the King must obey', To the members of the group, as has been presented earlier, if you have found any material, please draw up your summary first and please post on this page. if you have any questions please ask, may be some of us are able to help and talk about it, Our discussion starts now and, a meeting will be arranged and hopefully all of the members can agree to a date and be present in the meeting, so, thank you, and hopefully the quality of our group work will increase for this week and weeks ahead Amen Like · Comment · Follow post · 1 September at 16:16 TH and SP like this.	• Social Presence/ Cohesive Communication / Salutations • Social Presence/ Cohesive Communication / Addresses or refer to the group using inclusive pronouns
Khairul What should be done by the king to express his justice to his people? 1 September at 19:44 · Like	• Teaching Presence/Facilitating Discourse/Prompting Discussion
Khairul I will only give you two important facts. .. Establishing a system of administration and forming legal system hehe .. Thank you. You guys think of other points. hehe 1 September at 19:45 · Like · 1	• Social Presence/Interpersonal Communication/ Affective Expression • Teaching Presence/ Direct Instruction Indicators/ Present content
FJY The King must be fair, **The people must obey. You got the topic wrong. Legal system meaning sharia law or civil law? haha I think I misunderstand the topic 1 September at 23:22 via mobile · Like	• Social Presence/Open Communication/ Asking Question • Cognitive Presence/ Triggering Event/Puzzlement • Social Presence/Interpersonal Communication/ Self disclosure
DN The topic supposed to be "The King must be fair, The people must obey". I think the Legal system meant here is all form of legislation run in this country whether it is sharia law or civil law. But since our country is an Islamic country Civil law is based on Islamic Law. 2 September at 01:27 · Like · 1	• Cognitive Presence/ Exploration/Exchange

Acknowledging students' contributions, as well as complimenting them on their ideas, was an indispensable factor in interactive communication in social media, where students had to work mostly on their own. The Facebook data suggested that acknowledgement, for example in extract 5, illustrated in the way Khairul praised his student's effort in the writing of the presentation draft where he mentioned in the text '*Overall your presentation draft is good'*. This indirectly suggests his praise of the student could encourage more contribution from the

student he praised and from the other students who read the message to engage actively in Facebook discussions and in the sharing of documents. Additionally, Khairul created a supportive environment for knowledge sharing that leads to a level of confidence for students. The following example shows how teacher performed this function:

Extract 5 (Group 6)	Social, Cognitive & Teaching Presence Indicator
HD uploaded a file. Hi all, this is the final draft for our presentation this Saturday. Sir Khairul, please give comment.. and other members please tell what do you think? Any thoughts are welcome. Just say it., Thank you. Like · Comment · Follow post · 7 September at 01:08 Khairul and LA like this.	• Social Presence/ Cohesive Communication / Salutations • Social Presence/ Cohesive Communication / Vocatives
Khairul Overall your presentation draft is good. I am suggesting the decree be deleted .. it is enough to explain that MIB has it legalisation on independence day. (so that it is consistent with others) 7 September at 01:30 · Like	• Teaching Presence/Facilitating Discourse/ Acknowledging • Teaching Presence/ Direct Instruction / Focus the discussion on specific issues
HD Thank God., thank you for your opinion sir, not out of topic ???? 7 September at 09:23 via mobile · Like	• Social Presence/Open Communication/ Expressing appreciation • Social Presence/Open Communication/ Asking Question • Social Presence/Interpersonal Communication/ Affective expression
Khairul hehe .. 7 September at 18:02 · Like	• Social Presence/Interpersonal Communication/ Affective expression
HD what about the rest? Any other changes you want me to do?? or maybe add? 7 September at 18:57 · Like	• Social Presence/Open Communication/ Asking Question • Social Presence/Interpersonal Communication/ Affective expression
NH Thank god, it's acceptable , XD 7 September at 20:08 · Like	• Social Presence/Interpersonal Communication/ Affective expression

The review of the Facebook Transcript further suggested that providing help and learning support was important and allowed teachers to maintain their teacher presence in the learning community. As facilitators, the teacher provided students with a learning structure that outlined the learning process. The following example illustrates guidance from the teacher on how to write and submit assignments (*See extract 6 and 7*).

Extract 6 (Group 7)	Social and Teaching Presence Indicator
Khairul Hi, After receiving several softcopies of your weekly individual essays, it appears there are some files that are not in line with what is delivered. I mean the format is wrong with my computer system. To overcome this problem on my accountability, I do not need to softcopy through email, it is enough just to send hardcopy to me. Presenters and chairpersons who have already sent essay softcopy last week (updated) to be made for evaluation / scoring by email, it is requested to send hardcopy if the softcopy is different and have changes and additions from hardcopy that was sent to me . In short; 1) I will only scoring essays on hardcopy 2) Softcopy that has any changes and additions from hardcopy that been submitted must be reprinted and sent to me to be examined. 3) Softcopy with no changes and additions does not need to send again. I will only grade the hardcopy that has been submitted. 4) To be sure, please let me know to which one of your essays should I give marks. So please take note and thank you. Like · Comment · Follow post · 11 September at 09:23 near Bandar Seri Begawan MF, HH, FA and 2 others like this. Seen by everyone	• Social Presence/Cohesive/ Salutation • Teaching presence/ Instructional Design and Organisation/ Setting curriculum

Extract 7 (Group 9)	Social and Teaching Presence Indicator
Khairul uploaded a file. The best example of writing minute meeting in Facebook Like · Comment · Follow post · 8 September at 00:47 Seen by everyone	• Teaching presence/ Instructional Design and Organisation/ Setting curriculum

Since students in the study usually possessed a certain level of knowledge, the teacher encourages them to think of others' work and share it with his fellow students in order to trigger their thinking of related issues. The following series of postings (*see extracts 8 and 9*) show the use of direct instruction. The teacher in this study injects knowledge from different articles and internet sources to provide students with knowledge related to the content.

Extract 8 (Group 9)	Teaching Presence Indicator
Khairul http://www.facebook.com/notes/sidek-baba/tazkirah-12-kita-dan-baratberbeza/4379313254997 Lecture 12: We and the West Differ We do not take a stand against the West because the West is West. But we must be very careful with Westernization. Westernization is an agenda. Globalization for example is the Euro-American agenda on the other side ... by: Sidek Baba Like · Comment · Follow post · Share · 23 October at 00:15 near Bandar Seri Begawan Seen by 10	• Teaching presence/ Direct Instruction/ Inject Knowledge from diverse source

Extract 9 (Group 9)	Teaching Presence Indicator
Khairul Translation : (Quoted from a friend page with a slight change) Looking at the APEC conference held in Russia..I am pleased to hear President Vladimir Putin deliver a keynote address or statements or interviews in the Russian language completely.. Although he is fluent in 6 languages including English.. but he still chooses to deliver his opinion in his mother tongue language because he has an interpreter who can translate what he narrates .. Russian language is used as one of the official languages in the UN but the use of the Russian language is limited to the union and the former Russian colonies .. It's not as widespread a language as English.. but it is not an excuse for a Russian to not speak in Russian language… Continue Reading Like · Comment · Follow post · 13 September at 19:40 near Bandar Seri Begawan Seen by everyone	• Teaching presence/ Direct Instruction/ Inject Knowledge from diverse source

A series of lengthy discussions (*see extract 10*) indicates that teachers were attentive and interactive in the discussions besides encouraging interactivity and supporting the students' learning process. The following example shows how teacher presence and social presence indicators were used in the conversation which prompted cognitive presence of students.

The teacher responds to the student's messages by pointing out that one argument he mentioned should be in the second slide. At this point, the teacher used a facilitating discourse indicator that suggested the teacher presence in identifying an area of agreement and disagreement with students' messages.

Extract 10a (Group 6)	Social & Teaching Presence Indicator
SM <u>Hello</u>.. So far, for this Saturday presentation, we have 5 sub-topics. Topic 1: Existence of Brunei Topic 2: Beginning Period of the Malay Islamic Monarchy (1363-1485). Topic 3: Golden Period of the Malay Islamic Monarchy (1485-1578). Topic 4: Challenging and strengthening Period of the Malay Islamic Monarchy (1578-1959). Topic 5: Recovery Period of the Malay Islamic Monarchy (1959-1983). f you guys have points and ideas to contribute for the above topic you are very welcome to post them. However, please do not wait until to the last minute so that the presenter has time to put them in the slides. And this Saturday if you wish to meet before the tutorial class it is alright with me; however I can't attend because I have class. So just go on if you guys want to meet Like · Comment · Follow post · 17 August at 00:51 near Bandar Seri Begawan Seen by everyone	• Social Presence/ Cohesive Communication/ Salutations
Khairul I think the argument that MIB should be integrated must be explained in slide 2.. Then slide 2 changes to slide 3 .. and so it goes for other slides.. such as my comment before.. 17 August at 00:53 · Like · 1	• <mark>Teaching Presence/Facilitating Discourse/ Identifying areas of disagreement</mark>

Constructive disagreement from the teacher, allowed students to use their cognitive thinking to evaluate their thoughts and encouraged them to provide reasonable evidence to substantiate their ideas. From here students show their second phase of cognitive presence that is exploration by exchanging information such as:

'I read this book written by Pehin.... But I forgot the name of the Pehin but wrote "Malay and Islam is our country identity, Monarchy is our country pride" however, I can't remember the exact words but I think it's something like that' and giving suggestions for instance '*How about this sir? MIB is to integrate parts of the country's philosophy that cannot be separated in the political, economic, social and national religion'. So maybe, we can add this point in slide 5?*

Then Khairul replied by disagreeing with his student's suggestion by saying '*I think you can put it in slide 2 in support of the point of MIB should be integrated'.*

On the other hand, the expression of agreement with students' ideas helped confirm their understanding and created a higher level of self-confidence among students. For instance, a student suggesting that his colleague give him the full contexts of her idea as he thought it is a good point to highlight in the presentation, then Khairul stating, '*You are right NH… that point is very good to prove MIB integration'*.

My observation of the Facebook messages suggested to me that the expression of agreement or disagreement by the teacher that was usually followed by presenting a helpful explanation provided a better understanding of the topic, not only encouraging participation but leading to student engagement. Extract 10b below shows evidence of students' engagement in the aspect of social, behaviour and cognitive engagement. Emotional and behaviour engagement of students could be seen from the social presence indicator. For instance, students demonstrate that they are behaviourally engaged by involving in discussion and demonstrating the absence of disruptive and negative behaviour.

Furthermore, the fact that students display they were engaging emotionally is illustrated in the category of Interpersonal Communication such as amusement (i.e. the use of hahaha). Examples of students being socially engaged could be viewed in their Open Communication category such as asking questions, referring explicitly to others' messages and complementing. Cohesive communication category of social presence was also commonly found in the following discussion with the use of vocatives in order to call for attention or identify the addressee such as *"So NH before you present topics 2-5, your argument that MIB should be integrated must be explained first"* and *"LA, can you explain what you mean?"* Apart from that, Cohesive Communication category (i.e. addressing to the group using inclusive pronouns such as 'our' and 'us' in the discussion) also show students' sense of belonging.

Extract 10b (Group 6)	Social, Cognitive & Teaching Presence Indicator
SM okay Sir. So NH before you present topics 2-5, your argument that MIB should be integrated must be explained first. 17 August at 00:56 · Like · 1	• Social Presence/Cohesive/ Vocatives

Khairul MIB would be weak if not integrated. This is what differentiates Brunei from other countries.. is this not so? If it is not integrated, it is not MIB 17 August at 00:58 · Like	•	Teaching Presence/ Direct Instruction / Present content
NH okay2, so in slide 2 MIB is an integrated concept? 17 August at 00:58 · Like · 1	•	Social Presence/Open Communication/ Asking Question
Khairul As an example ; Obedience to the king … What is this value? Malay, Islam or the value of Monarchy? Of course, it is difficult to answer… Therefore, the easiest is to say it is the MIB values... 17 August at 00:58 · Like	•	Teaching Presence / Facilitating Discourse / Seeking to reach consensus understanding
LA Sir, can we put something patriotic? Something that related to this topic? Have someone mentioned it before? 17 August at 01:00 · Like	• •	Social Presence/Open Communication/ Asking Question Cognitive Presence/ Triggering Event/ Puzzlement
Khairul LA Can you explain what you mean? 17 August at 01:01 · Like	•	Social Presence/Open Communication/ Asking Question
LA I read this book written by Pehin.... But I forgot the name of Pehin but wrote " Malay and Islam is our country identity , Monarchy is our country pride" I can't remember the exact words but I think it's something like that. So maybe, we can add this point in slide 5 ? 17 August at 01:03 · Like · 1	• • •	Cognitive Presence/ Exploration/ Information Exchange Social Presence/ Cohesive communication/ Addresses the group using inclusive pronouns Social Presence/Open Communication/ Asking Question
Khairul I think you can put it in slide 2 in support of the point of MIB should be integrated 17 August at 01:05 · Like	•	Teaching Presence/Facilitating Discourse/ Identifying areas of disagreement
LA Okay. 17 August at 01:06 · Like	•	Social Presence/Open Communication/ Referring explicitly to others' messages
NH um LA, if you can give me the full contexts of your idea? Because I think it is a good point for the presentation 17 August at 01:07 · Like · 1	• • •	Social Presence/Cohesive/ Vocatives Social Presence/Open Communication/ Asking Question Social Presence/Open Communication/ Complimenting
Khairul You are right NH that point is very good to prove MIB integration .. 17 August at 01:08 · Like	• • •	Teaching Presence/Facilitating Discourse/ Identifying areas of disagreement Social Presence/Cohesive/ Vocatives Social Presence/Open Communication/ Complimenting

The discussions carry on with the use of self-disclosure indicators. Self-disclosure not only facilitated students in establishing social rapport, but also encouraged them to contribute and share their knowledge and understanding in the learning community. Even though self-

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disclosure was not very common for students in this group, the data advocated that this interpersonal communication had a constructive impact on their learning.

The following example (*see extract 10c*) shows the use of self-disclosure of a student who at first did not understand the meaning of a word and then admitted that her Malay language is not fluent. Along with that, social and teaching support response from other members and the teacher who played an active role in facilitating the learning is shown in the discussion.

Extract 10c (Group 6)	Social, Cognitive & Teaching Presence Indicator
LA Integration?~~ 17 August at 01:19 • Like	• Cognitive Presence/ Triggering Event/ Puzzlement
Khairul LA look at the slide that I posted .. 17 August at 01:21 • Like	• Social Presence/Cohesive/ Vocatives
SM LAintegrated means mixed, unified 17 August at 01:21 · Like	• Cognitive Presence/ Exploration / Information Exchange
LA My Malay is not fluent sir, I am having trouble explaining 17 August at 01:26 · Like	• Social Presence/ Interpersonal Communication / Self-Disclosure
Khairul you could use mixed English and Malay language 17 August at 01:26 · Like	• Teaching Presence/Facilitating Discourse/ Setting climate for learning
LAYay!! 17 August at 01:28 · Like	• Social Presence/ Interpersonal Communication / Affective Expression
Khairul It is difficult to get away from English language 17 August at 01:28 · Like	• Social Presence/Open Communication/ Referring explicitly to others' messages
Khairul Because students are accustomed to speak English from the beginning. This is a challenge to MIB actually… 17 August at 01:28 · Like	• Social Presence/Open Communication/ Referring explicitly to others' messages • Teaching Presence/Facilitating Discourse/ Present content

On this instance the teacher's use of interpersonal responses is noticeable. Khairul replies to student messages with humour and uses a playful tone in various messages. Conveying humour builds the appeal of participation in such online discussions. The data suggests that

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humour resulted in increased comfort among the students as they interacted with each other and their tutor in this environment.

The following series of exchanges between the teacher and students illustrate this (*see extract 10d*).

Extract 10d (Group 6)	Social Presence Indicator
LA So can I put it in Slide 4? 17 August at 01:42 • Like	• Social Presence/Open Communication/ Asking Question
Khairul LA why not? oh my English hehe 17 August at 01:43 · Like	• Social Presence/Cohesive/ Vocatives • Social Presence/ Interpersonal Communication / Use of humor
LA I have not watched the show yet, but I have seen the ad 17 August at 01:44 · Like	• Social Presence/ Interpersonal Communication / Self-Disclosure

Subsequently, although self-disclosure was very uncommon in teacher messages, the use of this interpersonal communication indicator was illustrated in this discussion. The qualitative data suggested that self-disclosure expressed by teacher was not related to learning content. Rather, it usually involved a social communication that sustained a sense of presence, and was used to promote effective learning.

Extract 10e (Group 6)	Social Presence Indicator
Khairul I like to watch the show with my children hehe 17 August at 01:44 · Like	• Social Presence/ Interpersonal Communication / Self-Disclosure
LA On Sunday at 10 right, sir? I'll try to watch it. 17 August at 01:45 · Like	• Social Presence/Open Communication/ Asking Question • Social Presence/ Interpersonal Communication / Self-Disclosure
Khairul It's a good show 17 August at 01:46 · Like	• Social Presence/Open Communication/ Referring explicitly to others' messages

Conversely, the teacher also played an important part in creating a sense of teacher presence in social media settings. The use of establishing netiquette indicator such as *'If you want to talk about something else you can inbox me'* by the teacher helped to control and organize discussion in the social media learning environment.

Extract 10f (Group 6)	Social & Teaching Presence Indicator
Khairul ahah I think <u>we</u> are getting off track here. <mark>If want to talk about something else you can inbox me.</mark> hehe 17 August at 01:48 · Like	• Social Presence/ Cohesive communication/ Addresses the group using inclusive pronouns • Teaching Presence/ Instructional Design and Organization/ Establishing netiquette • Social Presence/ Interpersonal Communication / Affective Expression
Khairul worried if others are annoyed reading this <u>haha</u> 17 August at 01:48 · Like	• Social Presence/ Interpersonal Communication / Affective Expression
LA <u>Yup, actually</u> I want to tell you this earlier. <u>Ok.. Ok..</u> Someone might get annoyed 17 August at 01:49 · Like · 1	• Social Presence/Open Communication/ Expressing agreement • Social Presence/ Interpersonal Communication / Affective Expression

Another use of teacher presence elements in this discussion is facilitating discourse indicator where the teacher acknowledged and encouraged the student on her contribution of ideas as well as setting the climate for learning to indicate a sense of self-confidence in sharing knowledge.

Extract 10g (Group 6)	Teaching Presence Indicator
Khairul btw you have many ideas, actually. Use your abilities.. Just one thing that you must improve.. "confidence". Every ideas you want to share here you must have confidence. 17 August at 01:53 · Like · 1	• Teaching Presence/ Facilitating Discourse/ Setting climate for learning
Khairul If you are not sure, you can inbox me first.. I understand in the early stage everyone is cautious 17 August at 01:55 · Like	• Teaching Presence/ Facilitating Discourse/ Encouraging Students contribution

The last entry made in the discussion (*see extract 10h*) was about 14 hours after the conversation made by Khairul and the other students. This asynchronous communication feature of Facebook is one of the advantages, which can easily be read by another member at any time and can still exchange information with related references to share with the members even though they have missed the conversation earlier.

Extract 10h (Group 6)	Cognitive Presence Indicator
FJ In relation to Bahasa Melayu; After world war 2.Malay teachers strove to uphold the Malay language. Brunei Malay union built its objective to fight for Malay Bruneian right of social and educational development. At the end of the 1930s Malay Brunei Teacher Association PGGMB, was also formed to improve the standard of Malay teachers. They were also active in fighting for Malay language and for the need to teach Brunei citizens to read and write. The increased use of the Malay language can be seen from the exchange of ideas from newspaper and newsletter such as "kenchana",'hiburan"-- reference B.A Husainmia *Barisan Pemuda*(BARIP)-fights for the rights of Malay Brunei and to protect the sovereignty of the king and his people. Leader Awang Abdullah Awang Jaafar – Brunei armed youth (APB) - Emphasis on improving the welfare of members, particularly in education. Leader Pg Damit Pg Sungguh fights for Malay culture and promote patriotism and loyalty to the king among the society based on MIB 17 August at 14:31 via mobile · Like	• Cognitive Presence/ Exploration / Information Exchange

Overall, with Khairul I see a teacher who is actively involved in his FB groups. He displays the full range of techniques for asserting cognitive presence, social presence and teaching presence. It is also clear from the observation, Khairul demonstrate constructivist teaching in which he demonstrate of fostering critical thinking in addition to creating motivated and independent learners.

5.2.3.2.   Hilmi (Group 10)

Hilmi facilitates only one MIB private Facebook groups comprising 11 members including him as the tutorial class teacher of this group. It was created by one of his students on 11th of August 2012.

Analysis of Group 10 indicated that Hilmi's contribution in the Facebook group was the smallest compared with that of other participating teachers as he was more involved in mentoring them elsewhere such as in the WhatsApp group and in tutorial class. The Facebook data points out that the teacher engagements were in the form of social presence rather than teaching presence such as making compliments and asking questions. The following extract is the only occasion where he interacts with his students in the Facebook group:

Extract 11(Group 10)	Social Presence Indicator
Hilmi Hi, How is this group? How's your assignment...ok. Can this group add http://www.facebook.com/ modul.mib she is my colleague. k **Modul Mib** Female Like · Comment · Follow post · 20 September at 10:21 near Bandar Seri Begawan Seen by everyone	• Social Presence/ Cohesive Communication/Salutation • Social Presence/Open Communication/ Asking Question
AM Hi Sir, we are in the process of doing the presentation draft. For your information, Sir, this group conducted a meeting before semester break and we have given our feedback, Sir 20 September at 13:02 via mobile · Like · 1	• Social Presence/ Cohesive Communication/Salutation
Hilmi Ok That's good. Good luck 20 September at 21:10 via mobile · Like · 1	• Social Presence/Open Communication/ Complimenting
Hilmi Have you already add? 20 September at 21:10 via mobile · Like	• Social Presence/Open Communication/ Asking Question

Although the observation from the Facebook group indicated the absence of Hilmi's teaching presence in group 10, nevertheless students demonstrate as many as three phases of cognitive presence conversation such as problem recognition (triggering event), exploration and integration. Thus it is significant to highlight that Garrison's (2011) indicators correspondingly apply to students as well. It is (emphatically) not a contradiction to state that students in a course can manifest teaching presence. The following extract (*see extract 12*) is students' conversation regarding the group report writing task where one student shared a document with the title of 'The *King is for his People, the People are for their King'*. One member of the group CP, is displaying a brainstorming indicator regarding the topic, for example:

Extract 12a (Group 10)	Social and Cognitive Presence Indicator
CP ZP...umm..what about the public getting an opportunity to go to the palace during Eid and they get to meet the sultan...they also get food and gifts/green packet every year...And, student scholarship. Like students in Brunei are so gifted coz we get govt. scholarship and everything is paid for... 3 September at 23:38 · Like	• Social Presence/ Cohesive communication/Vocatives • Cognitive Presence/ Exploration/ Brainstorming

Other members of the group, WR and ZP were seen responding to his post by giving suggestions, for example;

Extract 12b (Group 10)	Social and Cognitive Presence Indicator
WR what about in terms of patriotism? Can we include that one? And that will be under which point? Social? hehe.. 3 September at 23:51 · Like	• Cognitive Presence/ Exploration/ Suggestion • Social Presence/ Open communication/ Asking question • Social Presence/Interpersonal Communication/ Affective expression
ZP Maybe, more likely Nationalism? It depends. What points have you got? 3 September at 23:54 · Like	• Cognitive Presence/ Exploration/ Suggestion • Social Presence/ Open communication/ Asking question

Then, it is observed that CP adds further information to his colleague by providing an address link reference to support his claim on the previous posting and to answer ZP's questions on what details CP has.

Extract 12c (Group 10)	Social and Cognitive Presence Indicator
CP http://www.bt.com.bn/newsnational/2012/08/24/record-number-people-visit-istana A record number of people visit Istana www.bt.com.bn A total of 110,728 people visited the palace during three days. The three-day Istana Nurul Iman open house for the public concluded yesterday, bringing the final visitor-tally to an all-time high, with nearly… 3 September at 23:59 · Like	• Cognitive Presence/ Exploration/ Information Exchange • Social Presence/ Open communication/ Expressing agreement

This illustrates the second phase of cognitive presence (Information Exchange, Suggestions, Brainstorming) suggested by Garrison (2011) and demonstrate that students are capable of creating this kind of interaction for themselves without the active presence of their teacher.

Other conversations that show Hilmi's students demonstrating students' cognitive presence are shown in Extract 13. Here students move their discussion from a triggering event phase to exploration and integration phases. The first phase (triggering event) of cognitive presence used by one student in Group 10, AM was puzzlement *for example "I don't understand the above statement... 'The lack of exposure...' ",* which triggered the response of AY who posted

the confusing messages earlier. AY explained that he thought he had misinterpreted the topic and suggested another idea to trigger his colleague's help. ZP displayed the second phase of cognitive presence (exploration) by providing information as a suggestion to AY. ZP thought he should leave out confusing words such as thirsty and absorption, which again shows the second phase of cognitive presence by the student. Then at the end of the conversation AY state that *'I have omitted that point'* which demonstrate solution which is indicator of the third phase of cognitive presence, integration. Following are the examples of students' conversation:

Extract 13 (Group 10)	Social and Cognitive Presence Indicator
AM I don't understand the above statement..." *"The lack of exposure.."* 1 September at 01:43 · Like	• Cognitive Presence/ Trigerring Event/ Puzzlement
AY AM ZP I think I misinterpret it sorry, hmmm how about this one, is this relevant? "Absorption of other cultures to demonstrate the values of other borrowed cultures turned into a sort of our own culture" 1 September at 08:23 · Like	• Social Presence/ Cohesive communication/Vocatives • Social Presence/Open Communication/ Asking Question • Social Presence/Interpersonal Communication/ Self disclosure • Cognitive Presence/ Trigerring Event/ Puzzlement
ZP Actually it means we are thirsty for other cultures and that we regard other cultures as higher than ours. 1 September at 10:52 · Like	• Cognitive Presence/ Exploration/ Suggestions
ZP maybe leave out the word thirsty/absorption 1 September at 10:52 · Like	• Cognitive Presence/ Exploration/ Suggestion
AY I have omitted that point because I am not confident to explain that. I replace it with... So, the slide goes like this, (KDYMM (His majesty) decree) Bruneian still failed to understand cultural connotations from the right perspective. It is now possible for outside negative cultures to influence our cultural values. 1 September at 11:25 · Like · 1	• Cognitive Presence/ Integration/ Solution • Social Presence/Interpersonal Communication/ Self disclosure

Another observation of the Facebook data also suggested that students were engaged and stimulated various phases of cognitive presence resulting from opposing views among the students. Extract 14 demonstrates students' second and third phase of cognitive presence where they explore relevant information and ideas in a way of brainstorming, exchanging information and giving suggestions. For example, in the conversation of extract 14a, AY has

the confidence to make suggestions of a proposed structure for the group presentation. He initiated his colleague's participation by saying *'I really need help on Introduction and Conclusion, pls advice.'*

Extract 14a (Group 10)	Social and Cognitive Presence Indicator
AY Hi Guys, This is my proposed structure for the presentation. Introduction - The sense of community (community) - The less likable Malay practices (mentality) In terms of Social: Bullying - HBT incident - Road Bullying In terms of Economy: Spending - Waste of money (e.g. 'open house') - Get Rich Quick Scheme ('c karim' :p) In terms of Faith: - The culture of gossiping and backbiting - Superstition (shaman, etc.) conclusion These are the incidents I can get from our local news (thus easy to cite for essay). You guys can suggest to me any more ill-manners that are appropriate and I'll see if I want to replace my examples with yours, but please give me the source of citation :D I really2 need help on Introduction and Conclusion :s pls advice :D Like · Comment · Follow post · 25 August at 21:00 Seen by everyone	• Social Presence/ Cohesive communication/ Salutation • Cognitive Presence/ Exploration/ Suggestion • Cognitive Presence/ Triggering Event / Recognize Problem • Social Presence/Interpersonal Communication/ Affective expression

This is followed by AY exchanging information by posting a series of Uniform Resource Locators (URLs) for students' additional reading which once again triggers the group members to respond. AM and CP replied to AY by giving suggestions.

Extract 14b (Group 10)	Social and Cognitive Presence Indicator
AM Introduction is usually definition of the topic, so that it is easy to relate 26 August at 02:00 · Like	• Cognitive Presence/ Exploration/ Suggestion
CP you may use the unofficial reports when you are giving examples during ur presentation coz it's based on the publics' view...it's important as well.. coz it's more like what we experience here in Brunei with the Malays which may be a negative issue.. 26 August at 02:29 · Like	• Cognitive Presence/ Exploration/ Suggestion

Then a series of exploration (second phase of cognitive presence) such as brainstorming and giving suggestion took place. Example of brainstorming can be seen in a message that states

"*Are the Bruneian fans Malays or non-Malays?? If majority are Malays then we can bring up this issue*". Illustration of giving suggestion is *"yup you can make an opening with that issue for Q&A as it is common that once someone initiates something illegal, others tend to follow as well"*.

Extract 14c (Group 10)	Social and Cognitive Presence Indicator
AY CP yup you can make an opening with that issue for Q&A as it is common that once someone initiates something illegal, others tend to follow as well. 26 August at 09:29 · Like	• Social Presence/ Cohesive communication/Vocatives • Cognitive Presence/ Exploration/ Suggestion
CP AY are the bruneian fans malays or non-malays?? if majority are malays then we can bring up this issue?? 26 August at 17:58 · Like	• Social Presence/ Cohesive communication/Vocatives • Social Presence/Open Communication/ Asking Question • Cognitive Presence/ Exploration/ Brainstorming

The previous conversation (Extract 12, 13 and 14) displays that students illustrate the three phases of cognitive presence, however the fourth phase of resolution is lacking. Garrison (2011, p.53) showed that there is *'tendency to do the first two phases very well, the third phase less well, and the last phase hardly at all'*; the probable reason for which is due to lack of teaching presence moving the discussion forward. It is evident that in this group there is no teacher engagement in students' discussion and this makes the highest cognitive (that is resolution) phase difficult to reach for this group. However, it is important to note that the students feel comfortable interacting without teachers. There is a study by Jaffar (2014, p.206) that states students are more intent in peer-to-peer interaction compare with peer-to-tutor in their social and academic purposes. This is one of the reasons that could explain student active engagement in the Facebook group albeit without teacher's presence. This findings again linked to questionnaire findings where peer to peer activity is ranked higher by the students as the most useful activities on Facebook rather than student-tutor activities.

The Facebook data further indicated that social presence performed important functions in social media learning. This created a friendly learning environment and helped students in developing a social connection among themselves. In many cases, students used phatics (e.g. Hi everyone) to create a hospitable learning environment which usually appeared in the

beginning of a post (*see extract 14c*). Using phatics to indicate a sense of presence not only created a good atmosphere for cognitive development, but also nurtured a close-knit connection. Because of the relative lack of social cues, it was important that students in social media environments showed that they were communicating. Social Presence indicators such as acknowledgement of direct messages back to a particular person using vocatives, expressing agreement/disagreement, help/assistance and inquiry, were useful indicators that allowed students to maintain their presence in the Facebook groups. These responses are of assistance to encourage active discussions, as well as promoting knowledge acquirement and sharing that were helpful to learning in such contexts.

In the Facebook group, I can see that referring their friends by 'tagging' their names allowed students that are being tagged to participate, reply and reveal their active presence in the discussions. The following example (*see extract 15*) is a message from a student acknowledging their friend's message, using vocatives (i.e. tagging their colleague names) to direct her message back to a particular person. Chan (2009) states that 'tagging' is one of the most common used features on Facebook, which enables users to recognize and mention people in photos, videos and notes. Furthermore, mentioning the name of the member of the group who posted the previous message is essential because if the message does not explicitly refer to a previous message or quote from the message, then it could be hard for the member to know to whom and what the message referred to. In addition, it helps solidify the social bond among members of the group and this implies that there is a cohesive social presence indicator in the group.

Extract 15 (Group 10)	**Social and Cognitive Presence Indicator**
AY http://www.bt.com.bn/newsnational/ 2011/09/01/sermon-be-grateful-wasteful http://www.bt.com.bn/newsnational/2011/09/03/sermon-observeetiquette- when-making-raya-visits CP I already find these to strengthen my point. But we can try the graph thing but I don't know how to interpret an economy graph :s and I am still looking for sermon about racist act AM sis, how to search the sultan's decree? 29 August at 00:40 · Like	• Cognitive Presence/ Exploration/ Information Exchange • Social Presence/ Cohesive communication/Vocatives • Social Presence/Interpersonal Communication/ Self disclosure • Social Presence/Interpersonal Communication/ Affective expression • Social Presence/Open Communication/ Asking Question

Another form of acknowledgement was complimenting the others on their contributions. Such an approach was adopted as a means to offer appreciation for active participation. The review of the Facebook messages showed that it promoted the incentive for active participation while also enhancing social connections among students. It is important to use appropriate praise when other students make a significant contribution, or attain certain tasks. Using phrases such as *'awesome'* or *'interesting facts'* helped to enhance self-confidence and encourage the participation of students.

In addition to acknowledgement, the use of agreement/disagreement resulted in a positive learning experience. The use of agreement created an environment of trust and confidence in contributing their thoughts actively in discussions. The expression of disagreement seemed to engender a reflective thought process. The data demonstrates that messages comprising this interactive indicator, mainly disagreement, stimulated active and in-depth discussions.

The following extract is an example of agreement/disagreement that the student posted in Facebook group discussions.

Extract 16 (Group 10)	Social and Cognitive Presence Indicator
CP is it actually a racist issue?? Isn't it more like bullying? coz they did it not because they dislike the Myanmar group due to their race.. It was due to the match right?? 27 August at 01:53 · Like	• Social Presence/ Open communication / Expressing disagreement • Cognitive Presence/ Exploration/ Divergence
CP an example for racism issue could be the Malays calling Indians "KALING"...and all these grocery stores they call it "kedai kaling" coz d owners are Indians... That is a racism issue! 27 August at 01:55 · Like	• Cognitive Presence/ Integration/ Synthesis
AY CP it is bullying, and there is a little racist element in my opinion. I agree on the racism issue, maybe we can relate it to bullying from the Malay, because they feel superior, as they are the dominant population in Brunei so... they are less sensitive in other culture and ethnicity issues. 27 August at 02:10 · Like · 1	• Social Presence/ Cohesive communication/Vocatives • Social Presence/ Open communication / Expressing agreement • Cognitive Presence/ Exploration/ Divergence • Cognitive Presence/ Integration/ Convergence

In the message, the student with initials CP explains reasons for disagreeing with the ideas of the previous student where she thought that it is not the issue of racism but it is more a bullying

issue. She suggested an alternative view based on her personal experience in which she explained that calling Indian people '*Kaling*' (an impolite word used in Brunei and Malaysia to call Indians) is racism in her opinion. The message then generated an ongoing discussion on the topic among the students. The subsequent discussions provided them with the opportunity to reflect on the others' perspectives and concluded with a solution after agreement was reached.

Help/assistance was additional evidence of social presence demonstrating interactive interaction among students in social media. Assisting each other imitated a sense of presence and generated companionship amongst the students. It also allowed students to learn from each other and to cultivate new knowledge from diverse viewpoints. For example, in extract 15, AY was asking AM for assistance to search for the sultan's decree and in extract 17, AM responds to AY. The following remark illustrates where AY comes up with resources to support his colleague, AM, by providing and suggesting a website address to search for the information.

Extract 17(Group 10)	Social and Cognitive Presence Indicator
AM AY here is the link http://www.pmo.gov.bn/ you can find Sultan's decree on your top left n just click on it. The Prime Minister's Office Of Brunei Darussalam www.pmo.gov.bn 29 August at 09:08 · Like · 1	• Social Presence/ Cohesive communication/ Vocatives • Social Presence/Open Communication/ Quoting from others' messages
AY Thanks sis AM 29 August at 10:48 · Like	• Social Presence/Open Communication/ expressing appreciation • Social Presence/ Cohesive communication/Vocatives

What is interesting to highlight is that the students create new practices in which this group seem to have managed to take appropriate and effective action to formulate and solve problems without any facilitation by the teacher. Elements of heutagogy or self-directed learning coined by Hase and Kenyon (2000) appeared in this study, where the learner is at the centre of their own learning, in other words learner-centric. Chapnick and Meloy (2005, p.46) state that heutogogy is about the self-directed learner and the self-determined learner

where the learner builds some resources and then takes the lead and this approach is aligned best in a digital native context.

The observation of the Facebook discussions supported the notion that social presence played an imperative role in social interaction and the eventual fashioning of learning via social media. In particular, students could use social presence to create an effectual communication platform. Moreover, they could use it to motivate interactive learning and establish social connection. The conversation has also fashioned a clear-cut picture of the manner in which students harnessed a sense of cognitive presence using different indicators at different phases of learning in such contexts.

It could be argued that the form of knowledge in this context of social media setting is that students display that they are able to shift their learning practices according to the environment developed around them. In this Facebook group, they also collectively explored the possible uses and affordances of Facebook. What is notable in Hilmi's group is that they were able to do this without the teacher playing an active role.

5.2.3.3. Liza (Group 3)

Liza facilitates one MIB private Facebook groups comprising 19 members including her as the tutorial class teacher of this group. As indicated by the transcripts data, the Group 3 Facebook group was created by Liza herself on the 11th of August 2012.

The review of Group 3 Facebook Transcript suggested that Liza frequently provided reminders to students to maintain her teaching presence. The Instructional Design and Organization Indicators such as setting the curriculum is the common indicator to reveal active teacher presence in the Facebook group (see extract 18).

Extract 18 (Group 3)	Social and Teaching Presence Indicator
Liza Attention: for the final presenter 30 October 2012, God willing the title of the lecture to be presented is regarding education. God Willing on the 10th November, the final presenter can choose their topic either to present MIB Education or MIB Country Like · Comment · Follow post · 26 October at 18:22 HA likes this.	• Teaching Presence/ Instructional Design and Organization / Setting curriculum
NN so the topic of globalization is not yet confirmed? **(:** 26 October at 23:41 · Like	• Social Presence/ Open Communication/Asking questions • Social Presence/Interpersonal Communication /Affective expression
NN for 3rd November? 26 October at 23:41 · Like	• Social Presence/ Open Communication/Asking questions
Liza 3rd November the topic will be globalization, on the 10th November the topic is either MIB Education or MIB Country 27 October at 10:04 · Like	• Teaching Presence/ Instructional Design and Organization / Setting curriculum

As facilitator, Liza also provided students with a learning structure that outlined the learning process. The following example (*see extract 19)* illustrates direct instruction indicators such as injecting knowledge where the teacher posted an example of writing up minutes of a meeting.

Extract 19a (Group 3)	Social and Teaching Presence Indicator
Liza uploaded a file. Examples of minutes of a meeting as they should be written by the secretary Like · Comment · Follow post · 18 August at 15:08 Seen by everyone	• Teaching presence/ Direct instruction / injecting knowledge

Liza also displays instructional design and organization indicators where she sets the curriculum, for example "*I omit the rapporteur task*", and establishing time parameter such as stating "*print, then submit to me on Saturday".*

Extract 19b (Group 3)	Social and Teaching Presence Indicator
Liza I omit the rapporteur task, just presenter 27 August at 10:31 · Like	• Teaching presence/ Instructional Design and Organisation/ Setting curriculum
Liza print, then submit to me on Saturday 27 August at 10:31 · Like	• Teaching presence/ Instructional Design and Organisation/ Establishing time parameter

It is also significant to acknowledge the particularities of Liza's group with respect to their ways of building group cohesion. Many expressions of social bonding from this group seemed to come from their shared language and culture. Culturally conversation such as in Liza's conversation where she termed her students who are older than her with the word 'sis' for example, "*Sis HA... submit after presentation..."* indicates emphasizes the use of culturally inclusive pedagogy in the teaching presence to assist the formation of social ties among members of the group. The use of social presence communication that contained a culturally positive emotion in their messages, makes them more friendly and welcoming. The use of affective expression (i.e. hahah) although infrequent makes the message more relaxed and personal. Furthermore, in observing social presence in this group, the members demonstrated cohesion by using Arabic and religious references to build commonality with each other such as the using of the word '*Salam'* and *Insha'Allah* (God willing). This is an imperative characteristic of social presence that should be acknowledged by social media teachers in order to encourage culturally inclusive atmospheres among the group members to express themselves using their own language, culture and religion.

Although in Liza's Facebook group could be seen frequent Teaching Presence of teachers and Social Presence among both students and teachers, however, the Facebook data of Group 3 also reveals that there are only very few examples of Cognitive presence indicators present in the conversation for example, *'p/s for everyone: is it specifically for community of NBD alone?.'* Here, the student displays a sense of puzzlement and thereby triggers others' involvement by asking a question (*see extract 20*).

Extract 20a (Group 3)	Social, Cognitive and Teaching Presence Indicator
AA P/s for everyone: is it specifically for community of NBD alone? 11 September at 16:48 · Like	• Cognitive Presence/ Triggering event/ Puzzlement

Then, NR respond to AA by showing agreement AA questions but NR trigger Liza responds by saying 'right miss?'. Liza is observed to respond to AA and NR by facilitating the students with information in order to seek students' understanding.

Extract 20b (Group 3)	Social, Cognitive and Teaching Presence Indicator
NR yessss...right miss? 11 September at 18:18 via mobile · Like	• Social Presence/ Open communication / Expressing agreement • Social Presence/ Open communication/ Asking question • Cognitive Presence/ Triggering event/ Puzzlement
Liza Hi for this topic, you can discuss the duty of the community in general. What is the purpose? Then you can focus on the Bruneian community. Why should we preserve the concept of an Islamic country? Support your points with examples such as the sultan's decree... 11 September at 19:55 · Like · 2	• Social Presence/ Cohesive communication/Salutation • Teaching Presence/ Facilitating Discourse/ Seeking to reach understanding

From overall observation of Group 3, I can see that most of the students' conversations in their Facebook group under Liza's facilitation were mostly concerned with weekly topic information, giving details of group members and asking questions regarding the course task. There is a lack of cognitive presence in the Facebook group.

5.2.3.4. Ariffin (Groups 1, 2, 4, 5)

Ariffin facilitates four MIB private Facebook groups; Group 1 consisting of 12 members, while Groups 2, 4 and 5 comprise 11 students. All of the groups were created by the students on the 11th and 12th of August 2012.

The following example is the conversation by Ariffin as the teacher at the early part of the semester in the groups he facilitates. The transcript data suggests that Ariffin started his first posting by reminding students about their duties and responsibilities for example, *"Salam*

students, just to remind you all regarding your roles and responsibilities that I gave you yesterday. Any problems and confusion do not be afraid to ask me". He also displayed communication that serves a social function such as greeting (i.e. *Salam*) and closure (i.e. Happy fighting the battle) in the message he posted. The data demonstrated that Ariffin posted similar information to all the groups he facilitated.

Extract 21 (Group 1, 2, 4 and 5)	Social and Teaching Presence Indicator
Ariffin <u>Salam Students</u>, Just to remind you all regarding your roles and responsibilities that I gave you yesterday. Any problems and confusion do not be afraid to carry out the tasks given from each of the students according to their roles given. Happy fighting the battle. Like • Comment • Follow post • 16 August at 17:04 via Mobile Seen by everyone	• Social Presence/Cohesive Communication/ Salutation • Teaching presence/ Facilitating discourse/ Setting climate for learning

The observation of the Facebook Transcript further suggested that providing assistance and learning support was necessary and allowed teachers to maintain their teaching presence in the learning community. As facilitator, Ariffin provided students with a learning structure that outlined the learning process. The following is an example (*see extract 22*) from Ariffin's group 5 that illustrates guidance from a teacher in assisting one of his students who has confusion regarding questions posed to him as well as procedures on writing and submitting assignments.

Extract 22 (Group 5)	Social Presence Indicator
UM Si<u>r Ariffin,</u> Do I need to enter slideshow (slides) in my report or only the content? 22 August at 11:47 · Like	• Social Presence/ Cohesive communication/Vocatives • Social Presence/Open Communication/ Asking Question
Ariffin put them in the report, just print 2 in 1 slideshow of the presentation 22 August at 14:15 via mobile · Like	• <mark>Teaching Presence/ Direct Instruction / Responding to technical concerns</mark>
UM Sorry, sir , I'm still not clear what is meant by 'print 2 in 1'. Can you explain? 22 August at 19:24 via mobile · Like	• Social Presence/Interpersonal Communication/ Self disclosure • Social Presence/Open Communication/ Asking Question
Ariffin the slideshow during your presentation, print 2 slides in every one page. So that you can save your paper and ink. 22 August at 20:49 via mobile · Like	• <mark>Teaching Presence/ Direct Instruction / Responding to technical concerns</mark>

UM But for the report, the number of pages should not exceed 3 pages. And the number of slideshow is already about 8 pages that contains the important content. Will the marks be deducted for exceeding 3 pages? 22 August at 22:51 via mobile · Like	• Social Presence/Open Communication/ Asking Question
Ariffin No deduction. Moreover, the slideshow itself already exceed 4 pages. 23 August at 15:02 via mobile · Like	• Teaching Presence/ Direct Instruction / Diagnose misconception
UM Owh.. Thanks, sir. 23 August at 18:40 · Like	• Social Presence/Open Communication/ Expressing appreciation

On another review of the Facebook conversation, Ariffin's teaching presence is evident from the use of direct instruction indicator that illustrates how he responded to students' technical concerns about students first report that have been submitted. After assessing the report of his students, Ariffin explained how to write a report and remind the member of the group regarding their roles and responsibilities. He concluded his message by complimenting his students stating that they have done a very good job (*see extract 23*).

Extract 23 (Group 2)	**Social and Teaching Presence Indicator**
Ariffin Hi. I have already had a look at your first report. There is a few that you should take account of. For instance, who take the roles of: 1. Chairman, please send your labelled soft copy (in cd) this Saturday. And to co-chairman please make sure that all of the members attend on time during the meeting except for inevitable reason (not because of no transport or attending another class). My advice is to set the time and day, which could be your permanent weekly meeting for all. 2. Secretary, in your minute meeting report, there is no report of members name and contribution by members such as findings, data etc. This is important for me to assess for grading purposes for all members. 3. Rapporteur, you did not report members' details regarding their enquiries, their proposals and their contribution to the questions being asked. 4. Presenter, your essay should have footnote (references), introdution, correct font and font size, adhered to the prescribed essay format and and have conclusion. 5. Members, your presence in each meetings and tutorial is included in the grading and evaluation. Other than that you did good job, congratulation. Please refer to the summary of duties and responsibilities that I have provided. Thank you. Like · Comment · Follow post · 28 August at 23:04 via Mobile DO, BP, FJ and 4 others like this.	• Social Presence/Cohesive Communication/ Salutation • Teaching Presence / Direct Instruction / Responding to technical concerns • Teaching Presence / Direct Instruction / Confirm understanding through assessment and explanatory feedback • Social Presence/Open Communication/ Complimenting

Further review from the Facebook Group Transcript under the facilitation of Ariffin (Groups 1, 2, 4 and 5) until the end of the semester suggested that the teacher frequently provided reminders to students to maintain his teaching presence. In his interview, Ariffin stated that regularly reminding students could ensure the group's rate of participation remained high. The Instructional Design and Organization Indicators such as setting curriculum and establishing time parameters as well as the Use of Direct Instruction Indicator, for instance presenting questions to students, was the common indicator to reveal active teaching presence in Ariffin's Facebook group.

Extract 24 (Group 4)	Social and Teaching Presence Indicator
Ariffin Hi all. For the topic of MIB and Corruption, have you decided on who will take part in the presentation? This topic will be presented along with the title of MIB and development on 10/13/12. Thank you. Like · Comment · Follow post · 9 October at 08:55 Seen by everyone	• Social Presence/Cohesive Communication/ Salutation • Teaching Presence/Direct Instruction /Present Question • Teaching Presence/ Instructional Design and Organization / Setting curriculum
SH Hi. Good morning! Not yet sir. 9 October at 08:57 via mobile · Like	• Social Presence/Cohesive Communication/ Salutation • Social Presence/Open Communication/ Referring to others message
Ariffin Ok, Please specify who will taking which positions immediately. Please notify me as soon as possible. Thank you. 9 October at 09:29 · Like	• Teaching Presence/ Instructional Design and Organization / Establishing time parameters

On the other hand, the Facebook data of Ariffin's groups reveals that there are only a few examples of Cognitive presence indicators present among the students in the conversation or postings, as most are concerning weekly topic information, giving details of group members, sharing slides documents, distributing information links and asking questions regarding the module task. Nevertheless, students demonstrate first and second phase of cognitive presence conversation among themselves, such as triggering event *(i.e. 'I wonder if there is any points that is relevant to our topic here?')* and exploration (*i.e. 'How does it prove Islam is in Brunei at that time… I think u should mention, all the names of the three missions were Islamic names and it shows that Islam is in Brunei').* Below are other examples of students'

conversation that illustrates the first and second phases of cognitive presence in Ariffin's group (*see extract 25 and 26*).

Extract 25 (Group 2)	Social Presence Indicator
KZ Sultan's degree on teachers day celebration this year seems appropriate / relevant to our topic.. What do all of you think? Like · Comment · Follow post · Share · 28 September at 11:59 Fabs Jaz likes this.	• Cognitive Presence/ Triggering Event/Puzzlement
DO I think that there is no problem... 28 September at 12:06 · Like	• Social Presence/ Open communication / Expressing agreement
KZ eh.. FJ had already post the same heheee I am late. 28 September at 12:22 · Like · 1	• Social Presence/ Cohesive communication/Vocatives • Social Presence/Interpersonal Communication/ Affective expression
FJ I put it under the building of nation in academic view 28 September at 12:39 via mobile · Like	• Social Presence/ Open communication / Referring explicitly to others' messages
BA On last Tuesday, I have been asked about this topic (the MIB and Defence) Whats more important, (may be added as a point) more people pass in English language compared to Malay language and Mathematics... If this problem is not addressed, the impact to Vision 2035 and the Bruneian nation is immense. Engineer will be less, the development will be slow, doctors will be less, diseases progresses (ratio between patients and doctors are not balanced), the official language may be a second language, lost to English language. I hope this help. 28 September at 12:45 via mobile · Like · 1	• Cognitive Presence/ Exploration/Information Exchange
KZ Actually Malay language has a higher pass rate than English. In 1983, graduating with honors achievements Brunei-Cambridge GCE 'O' level is.61% and it has increased to 97.16% in 2000.The achievement of English has increased, but not on par with the achievement of Malay which last only up to 90% since 2000 28 September at 14:05 · Like · 2	• Cognitive Presence/ Exploration/ Information Exchange
DO this statistic is vital, might be included into the presentation slide. It shows the Malay language persists as the official language in this country. 28 September at 14:09 · Like · 2	• Cognitive Presence/ Exploration/ Suggestion
BA Looking forward towards Vision 2035, do you think the statistic will be the same? Remember that statistics were already 10 years old. After all, Malay young generation at this time, learn in English medium schools where the main language is English.Their parents do not seem to bother about culture and about this	• Cognitive Presence/ Exploration/ Brainstorming

issue as they use English language at home. -> Challenge towards Vision 2035 is to increase the status of the Malay language. In the 21st century, it is important to maintain the Bruneian identity so it does not become extinct. 28 September at 14:49 · Like · 1	
BA In my point of view, Chinese face the same problem. I, myself do not know how to spell words, if the dictionary is not in hand. Culture and identity might not extinct in the era of globalization. 28 September at 14:54 · Like · 1	• Cognitive Presence/ Exploration/ Brainstorming
KZ These statistics is from 2004 during the national day seminar. It is a fact, and not "kinda / assuming" me. I do not deny there are some families use another language at home, but I'm trying to say is that an increase in the Malay language than english is proved that higher education can build a nation of Brunei who uphold the Malay language. 28 September at 14:58 · Like · 2	• Cognitive Presence/ Exploration/ Divergence
BA = The challenge is to preserve until 2035 and incessantly 28 September at 15:01 · Like	• Cognitive Presence/ Exploration/ Suggestion
FJ in which slide should we explain this? 28 September at 15:01 · Like	• Social Presence/Open Communication/ Asking Question • Social Presence/ Cohesive Communication / Addresses to the group using inclusive pronouns
BA "Maintain the status quo" 28 September at 15:06 · Like	• Social Presence/Open Communication/ Referring to others message

Extract 26 (Group 1)	Social Presence Indicator
NR Hi. My slides are 60% complete. I want your feedback 1) What is the disadvantage/absence/restriction of monarchy system and 2) challenges? Like · Comment · Follow post · 7 September at 18:30 Seen by everyone	• Social Presence/ Cohesive communication/ Salutation • Cognitive Presence/ Triggering Event/Puzzlement
SH NR.. all the advantages and disadvantages could be found at the points that KC provided earlier. And if I am not mistaken I have already given you the word document. I am at home now and I will give you more material when I am back tonight in at the hostel. But for now you can seach for any other points because I am worried we work in a haste tonight..I am sorry NR 7 September at 18:48 via mobile · Like ·	• Social Presence/ Cohesive communication/Vocatives • Social Presence/Interpersonal Communication/ Self disclosure
KC In my point of view, one of the disadvantages would be if the king does not carry out fair and judicious reign. ~ because history has proven that rebellion caused by the less efficient king in managing the country. That is why there is saying "the king as a symbol"... the challenges might be some people are not happy with the monarchy system and… 7 September at 18:48 · Like	• Cognitive Presence/ Exploration/ Brainstorming

| KC ...and rebellion might happened... perhaps... that is my view. 7 September at 18:49 · Like | • Cognitive Presence/ Exploration/ Brainstorming |

Observation from Ariffin's Facebook group shows that he did not apply Interpersonal Communication such as affective expression, self-disclosure and the use of humour. In terms of social presence, he preferred to use formal language in interacting with students. In his interview he revealed his belief that this could encourage respect for teachers, especially for the teaching of MIB as he thought that a less formal practice might incur a dilution of this respect. He gave a lot of thought to the language he used while conversing in the Facebook group with the aim of keeping some distance between him and his students, which he found more appropriate.

He also termed his approach to teaching via correct use of the Malay language, to the exclusion of other foreign languages in teaching and learning the MIB module. For him the Malay language is of prime importance and its full form should be adhered to, even in text-speak. This, he considered to be a matter of pride. Therefore, he saw it as vital in teaching students the correct manner of communication, whether on Facebook or in tutorial classes.

My observation of Ariffin's Facebook Transcript suggested that students in his group demonstrated that using the Malay language in virtual conversation took precedence. Extract 29 suggests that one of the students posted a message in which she apologized for using the English language in her previous post. She emphasized that using the Malay language in the group encouraged training and familiarizing of the implementation of the concept of MIB among the students in cyberspace.

| **Extract 29 (Group 1)** |
| FN
Hello,
Firstly, I want to apologize for the use of English in this MIB 4A facebook discussion. It is understood by myself, and was warned by the MM in the earlier 'wallpost' in the Facebook, that the use of the Malay language is encouraged to apply the concept of MIB among us and in cyberspace. My own negligence and my less susceptible to this matter since the beginning of this Facebook group was set up, I once again apologize, hope that in the future the use of the Malay language in the MIB 4A Facebook group considered as training, and make a habit. Thank you and please take note.
Like · Comment · Follow post · 16 August at 09:12
Ariffin, SH and 2 others like this.
Seen by everyone |

Extract 30 also showed a student reminding her friends to put into practice conversation in the Malay language.

Extract 30 (Group 2)
KS Note: Please use Malay language as the medium of instruction in this group. Like · Comment · Follow post · 12 August at 22:51 TZ, Ariffin and 2 others like this. Seen by everyone
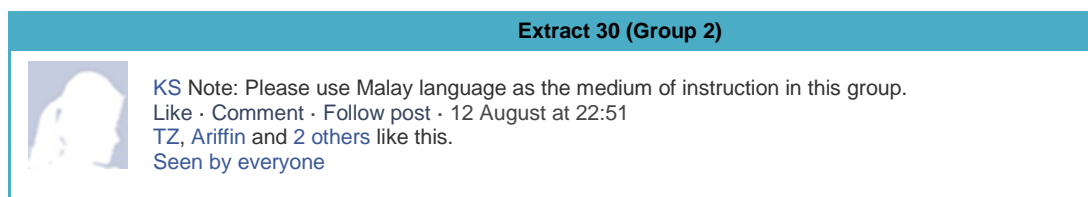
Later on, student KS was definite about posting in Malay and encouraging her colleagues to do so.

It is interesting to note that students demonstrated their implementation of the Bruneian Malay language, conversing in a more formal way as well as not using SMS words and abbreviation in the word spellings. Ariffin in his interview stated that he felt that this teaching method was successful, as students used the right structure and spelling of Malay language. As he stated in the interview, *'I could see that they [students] did follow my advice, because I stressed them to do that'.*

5.3. SUMMARY

The Facebook observation and content analysis responded to the second research question of: '*How do teachers facilitate engagement in the Facebook setting in the context of the MIB course?'* The review of the Facebook transcript has provided a clearer picture of how teachers displayed their social presence and teaching presence in their Facebook groups as well of how students use their critical thinking in a social media environment that attests their cognitive presence. The overview of the findings are as follows:

1. The text data analysis demonstrates that the ten MIB Facebook groups' space show a lot of weekly activities between teachers and students in groups that complement the delivery of MIB content in a virtual way which is outside lectures and tutorial classes. For example, they shared a variety of information such as posting summaries of lectures, sharing slides,

quoting others' messages by sharing a link address, as well as cutting and pasting selections of information from books and articles they have read to encourage others to read them. The Facebook data is coherent to the previous data in the questionnaire in which their main activity was sharing resources and information, finding information and getting feedback. Hence, others students who have read the shared information, showed their engagement by replying to make comments or simply by clicking 'like'. Interestingly, 'like' has a social meaning in a pedagogical perspective. In chapter 6, interviews of what teachers perceived of the 'like' features are explained.

2. From the information shared among the students, students show how they utilized their critical thinking in order to relate existing knowledge and generate new ideas. This was displayed in their cognitive presence indicator such as recognizing the problem, showing puzzlement, exchanging information, giving suggestions, brainstorming, showing differences in views or expressing disagreement (divergence), combining ideas (synthesis), to move towards a point and joining together (convergence) and showing solutions. These indicate that students showed different stages of the cognitive phases suggested by Garrison (2011), such as triggering event, exploration and integration. However, the higher phase that is resolution is lacking in the students' critical thinking process. From the observation of Ariffin's, Liza's and Hilmi's Facebook groups, Facebook is used by the teachers mainly to hand out information. Khairul is the exception as he is more active in taking part in the students' discussion. The reason why this happened is because the other teachers involved in this study did not only rely on Facebook in mentoring their students as they used another way of communication such as WhatsApp group and in facilitating students in tutorial class.

3. The findings from the Facebook transcript also demonstrate how teachers and students are socially engaged. For instance, displaying affective expression, expressing vulnerability, giving details of personal life, using humour to tease the members of the group, complimenting others or contents of others' messages, expressing agreement with members' views, addressing members by their name and 'sis', or referring to their

teachers in a polite or respectful way such as 'sir' or 'miss' as well as communicating in a purely social way using greetings and closures. There was a noticeable absence of disruptive or negative behaviour in the Facebook groups.

4. From the findings, the four teachers showed different aspects of their essential roles in their teaching presence. Liza frequently provided reminders to students to maintain her teaching presence. The Instructional Design and Organization Indicators such as setting curriculum, designing methods and establishing time parameters is the common indicator in Liza's group. Ariffin, however, repeatedly provided direct instruction such as diagnosing misconceptions, responding to technical concerns and confirming students' understanding through assessment and explanatory feedback. He also showed some facilitating discourse indicators, for example setting the climate for learning. Khairul on the other hand displayed equal teaching presence among the design and organization, facilitation and direct instruction indicators. Conversely, Hilmi's Facebook data illustrates that his engagements were in the form of social presence rather than teaching presence such as making compliments and asking questions.

As stated by Anderson *et al.* (2001), the educators' teaching roles fall into three primary categories: design and organization; facilitation and direct instruction. Consistent with this, they define teaching presence as "*the design, facilitation, and direction of cognitive and social processes for the purpose of realizing personally meaningful and educationally worthwhile learning outcomes*" (p.5). This indicated that teacher presence does not only rely on three primary categories: design and organization; facilitation and direct instruction but also should depend on social presence of teachers whereby they are able to create social elements that bring together the cognitive and social presence of the students to create and maintain a dynamic learning environment through social media. Teachers play essential roles in integrating the various social elements of educational experience. For example, they are instrumental in the use of interpersonal communication, such as showing emotion and humour to make the message friendly and personal and creating a welcoming learning space that could encourage the students to participate. In addition, teachers ask students a challenging

question to stir up new ideas and allow them to carry on with discussions. Teachers sharing the work of a student with fellow students in order to trigger their thinking of related issues enable students to stimulate their critical thinking or develop constructive arguments among themselves, as well as to develop their own explanations or new solutions to their problems and move forward to a higher level of cognitive development. This kind of teaching presence, and thus the development of TPACK, can also be manifested by students without the teacher necessarily being present. The dialogue and interaction in Facebook group can be used for both sides to develop knowledge about the potential tensions between TK and CK.

These findings also suggest that it is clear to us that social media such as Facebook provides a space for different approaches to learning. Students are able to decide the content and as a result they may be more keen to engage . The Facebook also brings with it too some exciting pedagogical potentials such as teachers' capacity to monitor and analyse how their students learn, what they find easy and difficult and tailor lessons accordingly.

CHAPTER 6: TEACHER ARTICULATION

6.1. OVERVIEW

The third research question pertaining to this study is *'How do teachers articulate their understanding of social media particularly Facebook in relation to pedagogy, content and technology knowledge and to the tensions which exist in this setting between the different elements, represented by these types of knowledge?'.* To explore teachers understanding, interviews were used in two stages. This chapter presents the findings derived from the first and second interview data, providing an outlook of teachers' perception of social media in teaching and learning MIB and their reflection of the use of Facebook within the MIB module.

The first semi-structured interviews (*see appendix 3*) were conducted with the aim to discover teachers' perception of social media and determine their certainty of whether social media can help transform the MIB module. In the first interview, I approached a group of my staff who I thought may be interested to get their opinion and their beliefs regarding social media. There were 5 teachers altogether; Noor, Yunus, Hilmi, Khairul and Liza.

Out of this group, even though all held positive beliefs about how it can change education, only three (Hilmi, Khairul and Liza) went on to use Facebook and two (Noor and Yunus) did not. However, during the teaching phase, I identified a further teacher, Ariffin, who had a particularly interesting online group. The teacher agreed to be involved and became a fourth member of my sample.

So, in the second phase of interview (*see appendix 4*), I wanted to explore teacher reflections of Facebook in their teaching including explanations to enrich the data from the content analysis reported in chapter 5. Therefore, I zoom in on those who did have Facebook (Hilmi, Khairul, Ariffin and Liza) and relate it back to the observation data.

To give a brief overview regarding the teachers, Noor, Hilmi and Khairul, are experienced MIB lecturers with more than 10 years' involvement in facilitating the MIB module. On the other hand, Yunus is a PhD student-tutor, Liza and Ariffin are Master student-tutors all of whom have 2 to 3 years of experience of being involved in facilitating the MIB module.

6.2. FIRST INTERVIEW FINDINGS

The first interview provided a picture of teachers' personal observations of social media in particular how they envisaged social media potentially impacting on MIB teaching and learning. These findings reflect perceptions pertaining to technology knowledge (social media), content knowledge (MIB) and pedagogical knowledge (teacher methods/practices).

6.2.1.Technology Knowledge (TK)

According to Mishra and Koehler (2006), Technology Knowledge (TK) is teachers' knowledge relating to the manner in which technology and its subsequent tools are to be inculcated into the learning process. In the perspective of this study, teachers' broad understanding of social media at their workplace and in everyday life is determined under technology knowledge.

6.2.1.1.   Teacher General Perception of Social Media

The following section reports the general perceptions of Noor, Yunus and Hilmi. Khairul and Liza do not figure here as he related his perceptions directly to his teaching. This will be discussed presently.

Noor's understanding of the technological affordances of social media seems to focus predominantly on immediacy and reliability of communication and subsequent sender-receiver relationship.

She makes it clear that social media, being readily accessible to the public, principally contains messages that are not filtered. Unfiltered information, according to Noor, does not necessarily provide the facts requested and she felt that there needed to be restrictions on its availability or checks on its probity. The issue of unfiltered information is in contrast with the assertions of literature such as Pariser (2011, p.9) who claim that the content of social media platforms, such as Facebook in particular, is under the control of the provider. This assertion tends to contradict the universally held notion that the information in social media is unfiltered. In the book 'The Filter Bubble,' Pariser (2011, p.9) maintains that Facebook personalisation feature helps users to share information which is agreeable, familiar and approves our beliefs. Thus, the feature leaves less room for the unforeseen encounters that trigger creativity, innovation and the democratic interchange of ideas. Users tend to miss the concealed information due to the presence of filters. Pariser (2011, p.7) further discusses that, the initial function such as an open platform for the dissemination of ideas insulates users from the wider social media culture.

She seemed to equate social media with being constantly contactable, noting that being able to send messages to the receiver at any time might mean that on occasions this communication might be received at an inappropriate time. Reflecting further on the status of messages between sender and receiver, she also believes that even though typically the messages would reach the recipient, people are in a position where they can choose not to attend to certain information.

Nevertheless, contrary to her more cautious viewpoint of social media in relation to the sender-receiver relationship, Noor states twice in the interview that that social media is not overly negative and returns to maintain that the promptness of receiving information was among the positive features of social media. This anomaly arises from the fact that she views that there is the possibility of a negative impact on a minority of individuals who are not open to certain ideas and who would perceive social media wrongly. However, Bruneian people at large, regardless of their generation, according to Noor, have accepted social media in an optimistic way.

Yunus professed that he rarely used Facebook and WhatsApp for the reason that he thought these social media lead to disturbing effects at certain times, for example receiving messages or notifications at dawn. It is noticeable that Yunus identifies a similar sense of caution to Noor in relation to being contactable at any time. I speculate that this is one of the reasons why he did not apply social media in his teaching similar to Noor.

On the other hand, he indicated that it is unfair to say social media is a bad thing as it depends on people's perspectives. If people think it is negative then it will be negative, as negative influence has existed since the early days, which he thought is normal. He also thinks that social media is a mechanism that enables humans to communicate and promote wider interaction. Although being not an active social media user himself, he still concluded that social media have more positive aspects than negative.

Generally, Hilmi sees social media as a new emerging technology that connects people in today's modern world. Observing that the majority of Bruneians on their mobile phones these days use social media such as WhatsApp, Twitter and Facebook to communicate with each other, he remarked that social media has now become a significant means of communication.

Immediacy is again an affordance he identifies along with speed of dissemination. He mentions internet connection and how the faster connections nowadays play a vital part for information to reach the receiver quickly. This immediacy and speed issue draws him to comment specifically on WhatsApp, which, according to Hilmi, makes it easy to attach pictures and send messages and with the help of fast internet connection information can be sent in seconds. Hilmi gave the example of how he received instant information of an accident that recently occurred via WhatsApp. With speed and immediacy, however, come particular challenges to how people filter information. He was also concerned that social media such as WhatsApp could lead to rising panic among the people and give rise to unfounded accusations, as illustrated by the story of a missing child which became viral in a WhatsApp group and which later was proved to be false.

Hilmi claimed that people, as social media users, should be wary of the trustworthiness of the news as well as taking into account whether the information could contribute to a good or bad influence on people. He believes that if the information that we receive is well-intended, it is all right to share it. However, if it could provoke a negative influence, although people think that the information might logically be true, it should not be shared. He fears that harmful information could impose a negative impact, particularly if it proves to be groundless.

6.2.2. Pedagogy Knowledge (PK)

Pedagogical knowledge (PK) pertains to the adopted understanding of the teacher about the overall learning and teaching process (Mishra & Koehler, 2006).

This generic form of knowledge in this study applies to teachers' perception of how students learn and of teachers' teaching skills in facilitating students. In the following section, there is interaction between the Pedagogy Knowledge and Technology Knowledge which is known to Mishra and Koehler (2006) as Technology Pedagogy Knowledge (TPK).

6.2.2.1.   Teacher Teaching with Technology (TPK)

In this segment, teachers give their perceptions and beliefs regarding their teaching and the student learning MIB module (PK) with the application of social media in it (TK). Following are their statements regarding this matter.

According to Noor, higher education students, whom she classifies as a young adult group aged 18 and above, are more exposed to social media. She thinks it is a good initiative to use a social media approach in teaching MIB within this age group. Moreover, she believes that Facebook usage among higher education students is high, and this is borne out by the initial student questionnaire with 93.39% students confirming its use.

What is more, Noor describes Facebook as a 'non-technical social medium', which could be advantageous in teaching at it was an effective method for communication between students and teachers. I interpret the 'non-technical social medium' term as her perception that all users can easily create content such as posting messages, replying to comments and publishing content without undergoing skill training.

Noor believes that social media could help transform and improve the quality of learning in the MIB module, but with the condition that the teacher is always there to guide the students. She reasons that in the learning process the teacher is always a leader and it is teachers whom students go to if they did not understand certain topics particularly in lecture classes. Furthermore, she observes that the nature of the MIB lecture class that has a large number of students for each weekly session makes social media a suitable complementary space in supporting teaching and learning approaches. She goes as far as to say that social media could become essential for lecturer and student interaction. However, Noor believes that if teachers do not know how to use social media then the implementation of social media in MIB module would be of no use. I interpreted from Noor's statement that she observed that teachers should be social media literate if they want to implement it for MIB module, therefore there is a need for pedagogical training for those who are not familiar using it.

In an educational context, Yunus thinks that social media has as the potential to enhance the competency of education. He illustrates this with an example of a current MIB tutorial class which has limited time of roughly 50 minutes each session, which Yunus thinks is not sufficient for discussion. Thus, social media can turn out to be a complementary space that has no time boundary for discussion where the students can have discussion any time of the day. In the previous literature review section, Nosko and Wood (2011) explain that social media is a useful tool for fostering social interactions, building social communities and forming social relations inside and outside the classroom. The rationale of this assertion is that social media enables students to join discussion or interest groups and share information, ideas, and opinions among themselves at any place.

Yunus interestingly raises some language issues in the use of Facebook in the Bruneian context. He mentions the likelihood of students using mixed language and words typically figuring in SMS. Although this seems to possibly be a negative assertion, he goes on to observe that although mixing language could occur; nonetheless, the group issue might create its own internal moderation because a student would know when to use mixed language and when it was not appropriate, such as speaking in a presentation and writing in assignments. He added that language changes at times and places. He gave the example of using a popular idiom in Bruneian language which is not standard Malay: *"Malas tah ku ingau"* (I don't want to care) is not used in a working context but only among friends. He seems to be suggesting that social media offers a locus for exploring appropriacy, that students could make a distinction when was the suitable time to use certain language.

Yunus thinks that social media use might be seen to have a modernising affect on MIB teaching and learning and may then encompass a broader range of young people. He believes that the younger generation view MIB as a subject for old people which limits them to explore something new. He thinks that the elements of social media, by opening up opportunities for discussion, make MIB subjects become modern and more relevant. He adds that this modernisation arises from the way in which it is possible to give an opinion in a new medium so that students could proudly say to friends that they had an online group discussion last night, which is more glamorous than sitting in an old style classroom. He suggests that students feel good using modern technologies.

Yunus also believes that social media has developed sufficiently to be able to support teaching quality compared to the time when social media were not so finely tuned and knowledge was limited. He concludes that although not being perfect tools for education, social media have many advantages that can open up students' minds to a broader appreciation compared to the past. According to him, students could compare their MIB knowledge with the advance of social media. Most interestingly as a corollary of this train of thinking, he believes that students could be convinced of how much better it is to have MIB as Bruneian identity.

In terms of teaching with social media, Liza thinks the advantage was the convenience of students doing assignments with the help of social media without referring to books as there are numbers of resources available for students to utilise which they found helpful. However, the disadvantage is the issue of the trustworthiness of the data. She indicates that students might take the easy way of finding information shared in social media without doing some research on the reliability of the data. On occasions, there are times where students reproduce 'provocative' data, declaring that MIB is too conservative, which Liza said would imply a negative impact. I noted that this provocation issue is a clear example of perceived tensions in which implementation of new technology such as social media in order to solve a pedagogical problem nevertheless has the capacity to raise tensions in the Brunei cultural environment.

When asked the question on whether she believes that social media could help transform the MIB module, Liza thought that there remained an uncertainty as to whether social media could help transform the MIB module unless there was motivation and an obligation for students to participate in a social media group. She added that it depended on students' responses and feedback as she thought that teaching and learning via technology is every so often changed over the passage of time. She gave as examples the use of emails as no longer having response from students; then, YouTube which was so popular then no longer being used by students in MIB education. She observes that Facebook, had a huge response from students when they conducted their discussions at night, but she perceives the beginnings of a decline with the appearance of other new emerging applications such as WhatsApp. In Liza's opinion, to use social media effectively, teachers should listen to students' feedback and appreciate their social media inclination but also recognise that there will still be students who did not want to participate in the group discussion.

Hilmi's thinking about social media was articulated in relation to how knowledge is developed. Knowledge seemed to relate to some mutual activity between students and teacher as he talked about the effortlessness for both parties to make knowledge available, contribute to ideas, socialise and conducts. Again, the promptness with which information could be

disseminated in a virtual condition rather than within the traditional face-to-face time constraints was identified.

Given the potential, however, the risk associated with reliability of internet connection and the disparity between individuals' availability of access constitutes a considerable negative impact on that knowledge creation.

Answering the question on whether he believes that social media could help transform the MIB module, he without doubt agreed that it would be useful to have social media in future education but with the condition that there would be sufficient facilities in its implementation. Once again, he mentioned the importance of making internet connection available for everyone in order to reinforce social media usage among teachers and students. .

Khairul holds firm views about the value of social media for teaching and learning. He is certain that using social media results in more positives being gained and fewer negatives. As a teacher who is in favour of social media and an active user of Facebook as well as using WhatsApp and blogs in his teaching, he recognizes the remarkable possibilities that social media have in enriching the MIB module method and practice of teaching. Khairul is confident that the wide array of features in social media contributes to student participation and engagement. Khairul acknowledges that the most significant contribution is the promptness in providing and receiving academic information. Inspiring writing among his students and supporting and analysing data from shared references between students are other benefits of social media. He also believes social media could be a good medium for students who do not have the audacity to communicate in front of other students.

To Khairul, one effective way to use social media in higher education is having MIB blogs for interaction and expressing views among students. Acknowledging that he use blogs for his other modules, he clarified that blogs are the easiest ways for academic interaction to be developed, particularly for the younger generation who are not so enthused by book-learning nowadays. Khairul has the vision that in the future, essays should no longer be written on

paper but submitted online provided that all security measures are adhered to, whereby the document is protected to make it more difficult for unauthorized parties to decipher the information.

6.2.2.2.   Teacher Teaching and Learning Experience with Technology (TPK)

In this section, teachers recount their experiences in teaching and learning (PK) with technology (TK). In what follows are Noor, Yunus, Liza, Hilmi and Khairul's account of their past events in their teaching life in the evolution of technology.

Noor's observations relate very much to her perception of her students and their habits of learning. She comments that students nowadays select the information they want to read or that they might only read an appropriate length of information with images that appeal to them. Noor has had experience where her students sometimes cut themselves off from receiving teaching information so is aware that technology impacts on how willing her students are to process content.

A further reflection relates to student-teacher relationships, a theme that emerges in different ways from the teacher data. From Noor's experience, students are sometimes afraid of teachers in the classroom, and her role is to eliminate this fear and substitute respect to promote a more positive atmosphere in which information is disseminated on a give-and-take situation. She sees social media as having the potential to connect people virtually, which, according to Noor, could help overcome this problem and in this way would be beneficial in teaching and learning MIB.

Thinking about how the teachers in the Academy of Brunei Studies who teach MIB modules use social media, she says they commonly use Facebook and WhatsApp as the way to communicate with their students and she herself has both of these social media accounts to communicate with her students. However, Noor again refers to the sound notification in

WhatsApp as 'bothersome'. Noor goes on to relate this perception of these 'bothersome' notifications to their content. In Noor's experience, students keep on asking the same questions and she feels that she did not have time to entertain them to such an extent that she admits that she does not keep her hand phone with her all the time as she thinks it would be troublesome just to respond to students' similar enquiries. This may go some way to account for why she opts not to implement social media in her teaching.

Yunus identifies the connectivity that the internet has brought as impacting on the teaching of MIB. Yunus has had experience as a student and said that the teachers taught MIB in a way which he termed as very 'static'. He could see that at the present by means of just connecting to the internet, people can be exposed to several branches of new knowledge that students could debate about. From this fact, Yunus expects that MIB lessons could become more variable with social media and students could search for new knowledge that later would be discussed among their friends; the positive impact of social media on the scope of teaching and learning thus becomes apparent.

Liza is focussed on the practical attributes of social media as an online extension of the physical classroom. She refers to how she is able to continue the 50 minutes' time-limited tutorial discussion and question and answer session in either the Facebook or WhatsApp groups. As exemplified in chapter 5, students make use of the asynchronous discussions to more flexibly contribute at their own convenience and own schedule. Asynchronous tools that are available in Facebook such as discussion wall, uploaded documents, video streaming, survey and polls, shared calendars and website links. This enables students to have more flexible time revising their studies using the archive MIB discussion available in social media particularly in Facebook.

However, Liza also points to changing technologies and suspects these habits of learning with specific tools are in frequent change. Observing from her own experience, she believes the usage of Facebook was starting to decline. Twice in her interview, mentioning that Facebook used to be the social media which was widely used, she said that later students were more

inclined to use WhatsApp. According to Liza, it was two years ago that Facebook was considered effective for learning but after a while no longer effective as students turned to using WhatsApp. Facebook is now considered no longer operative as the Facebook group has only been visited on the odd occasion as everyone is using WhatsApp now. She indicated that the reason is that most students have the WhatsApp application installed on their hand phones; this has the features that enable files to be attached and it is easier.

Talking about Hilmi experience using social media in teaching, he illustrated that in his use of Facebook and WhatsApp, he usually communicate using WhatsApp to respond to students' short queries such as asking questions regarding certain topics and inquiring if they are on the right track. While on Facebook, Hilmi informed that he would also communicate with students using 'inbox' to provide students with information that is usually concerning student request of information.

On the other hand, having experience of using several social media, Khairul reflects that blogs are much better than Facebook, as he sees that Facebook postings might not always be controlled. The absence of this feature of advocating moderation, made Facebook less commendable for Khairul in his teaching method and practice.

6.2.3. Content Knowledge (CK)

Content Knowledge (CK) is teachers' knowledge about the subject matter to be learned or taught (Koehler & Mishra, 2009). In the context of this study, the content to be covered is the MIB module, which is a compulsory module at University of Brunei for undergraduate students in which the learning consists of the study of Brunei National philosophy – MIB. In the following, teachers expressed their perception regarding how MIB philosophy (CK) could be impacted by social media (TK). This interaction of Content Knowledge (CK) and Pedagogy Knowledge (PK) is Technological Content Knowledge (TCK) according to Koehler and Mishra, (2009)

6.2.3.1. Teacher Technology and MIB Philosophy Outlook (TCK)

Yunus was of the opinion that social media had a positive impact on MIB philosophy. He described social media as a new stage in human technology development that was able to provide progressive impact on MIB philosophy by virtue of its convenience. He describes this new perspective on MIB in a positive light. He gave as an example the fact that in the past students did not know a lot about democracy but now they could search from Google the definition and make comparisons of how good or bad the democratic system is and then share the information through social media.

Further to the affordance of convenience, Liza had a sense that social media had opened up MIB philosophy in not only because people now can easily access MIB information, but because she perceived the community would be more able to understand MIB from YouTube, Facebook and Twitter. This seems to relate to perceptions of the young students accessing and processing information differently in a digital age; alternative media formats may facilitate understanding.

Furthermore, Facebook, Twitter and other social media tools appear to be perceived as a forum for knowledge building in their own right. Khairul adds that he thinks that social media not only produces a positive impact on MIB education in higher institutions but to MIB philosophy itself. He holds views about how social media can be used as a medium for MIB philosophy discussion, thereby promoting important approaches to reach outside societies in order to include a wider community.

6.2.4. Challenges to social media use

The first interview stage provided me with a sense of relatively positive perceptions of the potential of social media as a tool to support interactive engagement with the MIB module beyond the face to face classroom situation. Moreover, there was evidence of teachers feeling that the MIB content itself might be positively impacted upon in terms of social media opening

up discussion as well as student research. These positive perceptions sit alongside concerns that reflect teachers' experience of technology access and their perhaps limited experience thus far of putting social media into action – for many of the positive perceptions there is a caveat that different teachers voice in different ways.

Technology access and stability are key to teachers taking the step towards implementation. Khairul considers that in order for the MIB module to be achievable and if it is to be integrated with state-of-the-art technology, speedy Wi-Fi is a prerequisite. His display of frustration with the existing slow Wi-Fi connection in Brunei is obvious. Whilst at the same time being optimistic for the future of MIB education, he is hopeful that full support from the Government providing facilities such as financial support from the authority to make available the funding of blogs as free blogs offer limited features will be productive. In addition, he thinks that law enforcement agencies should help promote online safety.

Furthermore, acceptance of using social media in the method and practice of teaching throughout all generations, especially from lecturers will lead to MIB module success. Nevertheless, only certain teachers decide on using social media. Even students observe this varied engagement. One respondent to the student questionnaire mentioned that he/she *'cannot contact/text the lecturer as he is not in the Facebook group'.* Although this is not the most stated concern among the student, this gives me the understanding that some academic staff still have reservations about using social media in their teaching.

Liza on the other hand, having created a social media group, perceives reticence from some of the students. She feels that students are now more aware of their privacy in social media, and this is corroborated by some student respondents, reported in chapter 4, who mentioned that they did not feel comfortable if friends could follow their personal life. They state that '*people tend to get to stalk your life on what you do and where you are'.* This tension between the private and public is identified in the research (Freishtat & Sandlin, 2010; Woodley & Meredith, 2012; Friesen & Lowe, 2012) and appears to be a factor that teachers need to be aware of this context as they negotiate social media use.

A final aspect relating to student use is expressed by who sees the possibility of an increase in the number of indolent students who might wait for others to contribute in uploading and sharing information. He felt that this is the negative side of using social media. Likewise one student respondent two states that Facebook is allowing the 'free rider' where some of the members might take advantage of other people's work.

These perceptions form the backdrop to the next interview stage which involved a selected group of Facebook-using teachers being interviewed post teaching. The teachers who form this group are Khairul, Hilmi, Liza, and Ariffin. Drawing on exemplars of practice from the content analysis of the Facebook groups, teachers reflect on that practice and some of the themes identified thus far are returned to.

6.3. SECOND INTERVIEW FINDINGS

In the second interview, I explore teacher reflection of their teaching practices in Facebook group. As in the first interview, this second interview also is also coded in terms of technology knowledge (social media), content knowledge (MIB) and pedagogical knowledge (teacher methods/practices) in order to guide and understand teacher reflection. However, here I will be using Cox and Graham (2009)'s elaborated model of TPACK to help me decide the boundaries between the three knowledge (TK, PK and CK). It is because in this interview teachers provided multifaceted data thus making it difficult to categorize borderline cases. Cox and Graham (2009 p. 60) help clarify these boundaries and facilitate study of TPACK in practice as has been discussed in the literature review in Chapter 2.

6.3.1. Technology Knowledge

With regards to technology knowledge, I shall deduce how teachers might benefit from the findings of the interviews regarding technological affordances of Facebook. Their concerns in technological aspects would also contribute to the understanding of teacher technological

knowledge. The definition of Cox and Graham (2009) guided me in deciding technology

knowledge.

> *"Technological knowledge is defined as knowledge of how to use emerging technologies. The definition is confined to emerging technologies. Technology is defined as emerging technologies, because there are technologies that are not yet transparent "(Cox and Graham, 2009 p. 63)*

6.3.1.1.   Technological affordances

Facebook has various technological affordances that meet the requirements to be the most popular social environment. According to Idris and Wang (2009 p.253), technological affordances are concerned with the usability of an artefact that is an effective web-based tool or environment. Significant properties relating to usability are availability and accessibility.

6.3.1.1.1.   Non-technical social medium (TPK)

As reported earlier, Facebook is seen as a 'non-technical' social medium that enables users to create content for instance by posting messages, replying to comments and publishing content as well as usefully providing the notification to users in regards to the activities of the members. The 'available' features that teachers identified specifically related to student-student and student-teacher communications. Notifications which drew some critique from teachers for their private purposes i.e. being contacted by students at all times, were seen to be a facilitating feature. Ariffin refers to members of the group being notified on their laptops or hand phones of a message from a peer. Furthermore, he said that he was automatically able to read if a student had posted a question to him in the group wall or private inbox messages.

Private inboxes seemed to draw specific mention, perhaps related to observations about 'private communication' made by both some students and teachers. According to Idris and Wang (2009 p.252), the availability of inbox features in Facebook groups allows the teacher and students to direct private messages or sensitive and personal matters which would be

convenient on occasions where the communication is not intended to be shared by others. Inboxes were seen by the teachers as a specific student-teacher device.

Hilmi in his first interview said that the 'inbox' feature is frequently used by his students to ask him questions, allowing him to respond personally to their queries. Liza in her interview also revealed that students who had questions mostly inclined to send her private messages in Facebook, rather than asking the wall group, so that they could speak confidentially. In the content analysis, I observed that she also makes use of the inbox to send documents that are not intended to be shared with everyone else in the group. For example, in the content analysis, Liza asked the student to check her inbox because a student requested the name list of their group.

Extract 31 (Group 3)
HA and one more thing...... can I have the name list (attendance sheet) of this group miss? Because I want to copy their name according to the order of attendance sheet… to avoid confusion.. Thank you 24 August at 12:51 · Like
Liza HA check your inbox 24 August at 16:38 · Like

On the other hand, Khairul tells the student to use the 'inbox' in order to divert the 'off track' conversation between them, so that the communication was based mostly on academic purposes. One of his messages to students in the Facebook transcript is *"I think we are getting off track here. If you want to talk about something else you can inbox me… hehe"*.

These non-technical features that are easy to navigate in Facebook made the usage of Facebook in education simpler, and information could be reached by those for whom it was intended.

6.3.1.1.2.   'Like' Button (TPK and TCK)

The 'Like' button does not just mean someone likes our posting, but it has additional social meaning to it, where the user expresses that they enjoy or support certain content shared in Facebook. According to the content analysis data, there were 508 likes in total from the ten Facebook groups that were observed. Following are what teacher perceived of the 'like'.

For Liza 'Like' played an instructional management role in that she used it to confirm that students *"have read your message"* and "*have seen your posts"* and thus *"we know who has read our posts"*

On the other hand, Khairul sees more cognitive affirmation in the 'like' move.

> *It was like… the students understand what I was posting. Usually I look to see who 'like' my posting. Anyone who did not 'like' it gives the connotation that he did not respond to the ideas. So, 'like' for me does not mean only that they like your posting, but that they can respond to what you have said. I always tell them, at least you 'like' my posts'.*
> *(Interview, 25.06.2014/K1)*

Similarly, Ariffin said that 'like' "*suggests that students agree or they are informed. Mostly being informed and agree with what is being shared. No need to give comment (just clicking 'like') and it means that you agree to something'.*

Hilmi saw something more emotive in the act of 'liking'. He divided 'like' into two aspects. The first of these suggests students feel amused with the post or show some approval of the content.

> *They like it (our post) and they are amused if we post some funny messages. In an academic sense, they 'like' our posts on knowledgeable quotes as well as religious information for example, Ramadhan facts and so on.*
> *(Interview, 26.06.2014/H1)*

However, he saw a more subtle social move in the 'like' and especially with regard to more emotively negative comments. He explained:

'For example, one person could say something negative in their postings, but someone 'likes' it. This may be to show their support, but sometimes it could make people angry; for example, someone is mad about a system and they post, 'this system is stupid', and then people 'like' it. Maybe the one who liked it is agreeing or just wanting to encourage the one who posted it to get angrier. For me, someone who 'likes this kind of posting is encouraging someone to get mad...'.
(Interview, 26.06.2014/H2)

Therefore, I could comprehend that teachers came with diverse definition of 'like'. It can be concluded that, the 'like' is actually the non-verbal sign of support, agreement and approval that is a social presence indicator (Garrison, 2011). It might be the most-used feature of Facebook, but the social meaning that comes with it makes this 'like' button a unique feature of Facebook.

6.3.1.1.3.   Promptness (TPK)

As identified by most of the teachers in the first interview, the promptness and immediate availability in transmitting and receiving information is one of the most important attributes of Facebook.

Khairul in his first interview stated that the most significant contribution of Facebook is the promptness in providing and receiving academic information. Again, in the second interview, he recognizes the same possibilities. This affordance contributes to students' active participation and engagement. He illustrates this by pointing to examples of students actively exchanging conversation among themselves within a very short space of time. Correspondingly, Dykeman (2008, p.1) underscored the importance of social media by emphasizing that it has the potential to facilitate interactive engagement of people. For instance, a person can *"publish digital creative content; provide and obtain real-time feedback via online discussions, commentary and evaluations; and incorporate changes or corrections to the original content"*.

Generally, Hilmi also saw Facebook as a new emerging technology that connects people in today's modern world in the shortest time. Moreover, he observes that the majority of

Bruneians installed social media application on their mobile phones these days such as WhatsApp, Twitter and Facebook to communicate with each other. He regarded that social media such as Facebook had now become significant means of communication. The features available make it easy to attach pictures and send messages and with the help of fast internet connection information can be sent in seconds.

It is also noticed in the first interview that Noor also agreed that the promptness of receiving information was among the positive features of social media.

Evidence that shows this attribute influencing practice is displayed in the following example in a content analysis extract of Khairul's group which demonstrates that the time shows hardly any delay between responses. This suggests the promptness of Facebook in transmitting and receiving information is its essential attribute.

Extract 10b (Group 6)
SM okay Sir. So NH before you present topics 2-5, your argument that MIB should be integrated must be explained first. 17 August at **00:56** · Like · 1
Khairul MIB would be weak if not integrated. This is what differentiates Brunei from other countries.. is this not so? If it is not integrated, it is not MIB 17 August at **00:58** · Like
NH okay2, so in slide 2 MIB is an integrated concept? 17 August at **00:58** · Like · 1
Khairul As an example ; Obedience to the king … What is this value? Malay, Islam or the value of Monarchy? Of course, it is difficult to answer… Therefore, the easiest is to say it is the MIB values... 17 August at **00:58** · Like
LA Sir, can we put something patriotic? Something that related to this topic? Have someone mentioned it before? 17 August at **01:00** · Like

6.3.2. Pedagogical Knowledge

Cox and Graham (2009) give their guidance in ascertaining pedagogy knowledge.

> *"Pedagogical knowledge is simplified to focus on a teacher's knowledge of the general pedagogical activities that she might utilize. These include strategies for motivating students, communicating with students, presenting information to students, and classroom management among many other things. Additionally, this category includes general activities that could be applied across all content domains such as discovery learning, cooperative learning, problem-based learning, etc." (Cox and Graham, 2009 p. 63)*

In the following section I elaborate teacher pedagogical knowledge by looking into teacher views and reflection regarding pedagogical affordances and social affordances while making use of Facebook. Teachers' activities supporting innovative learning approaches, motivating students, presenting teaching materials, enabling students' cognitive engagement and promoting various interactions are discussed.

6.3.2.1.   Pedagogical affordances

Idris and Wang (2009, p.250) indicate that the distinctive features of Facebook enable Facebook to have various pedagogical affordances for teaching and learning. Kirschner *et al.* (2004) state that pedagogical affordances involve in what way a certain learning behaviour could possibly be enacted within a given educational context. Following are the themes that reflect pedagogical affordances of Facebook.

6.3.2.1.1.   *Supporting innovative teaching and learning approaches (TPK)*

In line with claims for the potential of Facebook by Idris and Wang (2009, p. 250) there is evidence of teachers and students sharing information, developing argument, exchanging ideas and building knowledge.

This made MIB learning more variable with social media; students could search for new knowledge that later would be discussed among their friends and there are instances of students gradually taking the lead in those discussions. As such student-centred learning, constructivist learning and collaborative learning using social media become apparent. It shows that students can also develop TPACK where they display teaching presence. In other words, both groups; teachers and students, are developing knowledge about this environment. The developments in knowledge and student engagement seem to be related as students developing TPACK can be linked to students' engagement. Engagement can here be seen as an instance of student active collaboration, participation, involvement, devotion and commitment in educationally determined activities. Students developing TPACK are seen to be displaying collaborative tasks that lead to a better outcome as well as by being involved as a member of the Facebook group community enabling them to   share documents, opinions and ideas, thereby developing relationships effectively with others who share some commonality with them.

The teachers also reflected on themselves in that process. Hilmi thinks that teaching virtually is comparable to teaching face to face, whereby although students may indeed begin to take the lead, they should nevertheless be guided in their learning, otherwise they risk losing all focus on their work, resulting in a desultory approach to completing their module assignments.

Interestingly, however, through my observation of content analysis of Hilmi's Facebook group, Hilmi's absence is apparent where he only made 3 postings in the form of asking questions and complimenting a student. Presented with that observation he clarified that he was more involved in mentoring them elsewhere, such as in the WhatsApp group and in tutorial class. He saw an interaction between the face to face encounters, other social media tools he was using with his students and the formal Facebook group. He felt that students would usually use the knowledge they had acquired from lecture and tutorial class to participate with peers in the Facebook group. His facilitating role was one of support outside that space.

Students tend to be more excited and motivated to participate in a virtual learning environment. As Facebook is a social networking site that has impacted the social interactions of the contemporary environment, the young generation has developed a great interest in the use of this social platform as means for communication and information sharing.

Hilmi observed that his students displayed enthusiasm in the early semester when he described them as *'hot from the oven'* and they were motivated to respond to any communication in Facebook group.

This can also be related to Yunus' statement in the first interview where he states that the elements of social media could motivate and open up opportunities for latest discussion in which Yunus viewed that using social media made MIB subjects become modern and more relevant as youngsters have always regarded MIB as an 'out of date' subject.

Teachers exploited this potential using Facebook to motivate University students. That perception of motivational power was used to address issues that teachers identified as specific to the MIB students. Echoing a study by Ellison *et al.* (2007, p.1163) I see that Facebook might be used by students who have low self-esteem and satisfaction, through aiding them to overcome barriers

Ariffin viewed Facebook as a space to encourage students who *'were scared to talk in the (tutorial) class'* to lose their fear of voicing opinions. Noor in the first interview stated that she experienced that sometimes students were afraid of teachers in the classroom. Therefore, communicating virtually could help overcome this problem and in this way would be beneficial in teaching and learning MIB.

Moreover, my surveillance indicates that the students taking the module are mostly first year students and by means of social media, there is a potential to develop students' self-

confidence in learning. I referred to the experimental study by Culham (2014) using Facebook as a student engagement technology with a first year Photosynthesis class of 300, proven to be a successful approach to teaching. He viewed that large first year classes can be hard to engage during lectures as students are new to University, often reluctant to stand out from the crowd and feel hidden amongst a large group. Consequently, Facebook may possibly provide a potential space to motivate new students' participation in learning.

6.3.2.1.3. Flexibility (TPK)

Being flexible to meet the particular needs of students and making use of Facebook's unique features of enabling communication and collaboration over a period of time through a "different time-different place" mode made Facebook a convenient social media site.

Khairul explained that his daily routine meant that he was usually online at midnight after work. He stated that:

> *I am always online at night. I can't in the early hours. I have a big family and I get back late from UBD (work). I usually chat at midnight. Yeah, usually at night. Moreover, students are busy attending classes in the morning.*
>
> *(Interview, 25.06.2014/K2)*

Liza also said that she participated in student discussion even though it was in the very early morning. According to her, she would wake up to answer students' questions in Facebook which were usually about presentation topics.

If I revert to the first interview, the attribute of flexibility is regarded by Noor negatively. She said that students being able to send messages to teachers at any time might mean that on occasions this communication might be received at an inappropriate time. Yunus also thought that social media could engender disturbing effects at certain times.

Therefore, I conclude that some teachers could tolerate the flexibility elements because it could facilitate student-teachers communication anytime and anywhere. However, there are also teachers who think they could only facilitate students in teaching hours.

6.3.2.1.4.   Presenting MIB materials (TK + PCK)

Through Facebook groups, teachers are able to present learning materials such as videos, PowerPoint slideshow, lecture notes, student reports' samples or hyperlinks in their postings. Teachers integrated MIB learning materials in the Facebook group learning environment so that students could better understand the MIB content.

Liza stated that she would share information and give reminders of tasks or deadlines to students. Likewise, Ariffin said that he would usually distribute similar information to all of his Facebook groups at once. From the content analysis findings, he is observed to be frequently providing notices to students regarding students' presentation topics as well as sharing the feedback information of students' reports.

Khairul, on the other hand, indicated that he frequently shared relevant information with his students in the group. His aim was for the students to discuss the information he shared as he thought students have difficulty in acquiring certain information. Therefore, he resolved the problem by sharing on Facebook the information that he had on his computer. This was to be the triggering point for students' discussion. Content analysis of the Facebook group facilitated by Khairul, as reported in chapter 5, exhibits his sharing of lecture notes, reports' samples and inserting hyperlinks to students.

6.3.2.1.5.   Enabling Teacher Teaching approaches (TPK)

The social networking design of the Facebook platform allows teachers to facilitate and impart knowledge for students. The teacher can make use of the group wall, for example, to inject knowledge from diverse sources, e.g. textbook, articles, Internet, personal experiences, diagnose misconceptions among students, prompting discussion, seeking to reach understanding, setting curriculum and designing teaching methods. This discussion regarding the importance of social media aligns with the assertions made by Wang (2012, p.64)

regarding his view of the importance of Facebook. He claimed that Facebook provides a platform ready for instructors to use for facilitating mentorship and affiliating teaching.

Khairul in his teaching approach, reflected he would usually want to take control of what students do in the Facebook group. My observation confirmed that Khairul in the Facebook content analysis wanted to reinforce the sense of being the teacher in Facebook. For example in his dialogue with the students: *'Hi, could you make me admin in this group account?'*. This demonstrates that he wants to be in control of the group by asking students if they could put him as administrator of the group. Along with that, he also indicated that he emphasized practising good behaviour among the students in the Facebook group. He reflected that taking control of the use of social media in teaching and learning is a challenge that should be looked at.

Khairul affirmed that he would only participate in the Facebook discussion if he thought that he needed to join in. However, as students keep on citing his name in the conversation, he felt obliged to participate. From my thorough observation of his Facebook group, I can perceive that his immediate response to his students encouraged real-time communication which resulted in a dialogue taking place among them which closely resembled a face-to-face conversation and presented a more natural way of communicating.

As the entries in the wall are chronologically displayed and invisible for all members of the group, it is easier for teachers to give marks to students. Teachers have mentioned that they give marks to students who participate in their Facebook group. Liza described that students' participation could be easily marked if using Facebook. There was an example of students discussing in Facebook for hours but this continued into the WhatsApp group so that those who did not have a Facebook account would be able to join in the discussion. However, she reflected that for those using WhatsApp, it would not be as easy as on Facebook to spot students who participated, so Liza's technique was to send 'text' discussion in the WhatsApp group to her email in order to identify students who participated.

6.3.2.1.6.   Enabling Students' cognitive engagement (TPK)

Facebook groups enable students to demonstrate their cognitive engagement such as showing puzzlement, exchanging information, giving suggestions, brainstorming, showing differences in views or expressing disagreement, combining ideas and showing solutions. As demonstrated in chapter 5, students showed different stages of the cognitive phases such as exploration and integration. Rice *et al.* (2011) also acknowledged that it is possible to integrate important new skills such as distributed cognition and collective intelligence in the learning process through social media.

According to Ariffin, the students whom he facilitated in his groups demonstrated their cognitive engagement by sharing information and exchanged their ideas. He illustrated that students demonstrated good practice when they shared their presentation slides in the Facebook group. He was happy that his students were able to do so with only occasional interruptions from himself to offer advice. He was pleased with his students' work which he regarded as exceeding his expectations.

Khairul revealed that the ideas that he had given students enabled them to engage in fruitful discussion, resulting in them being able to link their ideas in order to formulate a conclusion.

Hilmi, whose group has the highest cognitive engagement communication among the students according to content data analysis, reflected that his students were able to demonstrate exploration and integration, although without his intrusion in the Facebook group.

However, the higher phase, namely resolution, is lacking in the students' critical thinking process. I questioned the teachers in the interview on their reflection of students' cognitive engagement in Facebook groups' conversation with regard to my observation that the highest resolution is not available in the Facebook group. I asked if their students did well in their submitted assignment after being assessed and given grades.

Khairul reflected that his students' final assignments met his expectations and he was pleased with the grades achieved. However, he noted a difference in the performance of Malay and Chinese students. Malay students according to him were more competitive and more adept at interpreting information.

Hilmi also confirmed that his students demonstrated their ability to conduct quality written work and resulted in good grades in their assignments. He felt that involvement in social media led to good grades. He saw that students got help from fellow students and information from discussions which was instrumental in them getting good grades as they were in a better position to synthesize and apply what they had learnt from each other.

Ariffin indicated that students' engagement had contributed to their achievements with good grades in the MIB module. He could see that their findings were sometimes very good, even beyond his expectation. Nevertheless, there were some who could not deliver in terms of explanation as he thought that possibly they had not read much reference material. He admitted that he was very proud of his students because they tried to find the information until they acquired them and then applied the knowledge to their assignments.

Based on the teachers' reflection, students achieved the highest cognitive presence which is termed as 'Resolution' as it was demonstrated in students' final assignments and grades. Facebook conceivably enabled students to discuss critically due to its social networking design that allows cognitive presence to take place to its highest phase.

6.3.2.2. Social affordances

Social affordance refers to the properties of an object or environment that permit social actions (Kirschner *et al.,* 2004). Facebook allows the administrator to have the choice of choosing group members, have control of content available and information that can be posted on the page as well providing the platform for members of the group to interact with each other through the design adopted for a social networking site (Idris and Wang, 2009 p.251).

6.3.2.2.1.   Promoting teacher-student social interaction (TPK)
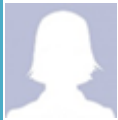
Facebook is a social space in which students and teachers could interact within small groups. Idris and Wang (2009, p.247) reported that Facebook is one of the Web 2.0 tools that was originally intended to foster social interactions among people and now it has a great potential for enhancing teaching and learning processes.

Interview findings show that teachers could socially interact, for example, introducing humour, using emoticons, praising students who did a good job in giving ideas and so on shows that Facebook could promote various forms of shared interaction in teaching and learning.

Khairul felt that maintaining a social presence on Facebook was an important tool in building good relationships between teachers and students. He specified that the social presence on Facebook provided the opportunity to introduce a note of lightness into discussions by such devices as the use of humour, placing emoticons, and displaying affective expression, which is vital in teaching. He also believed that it could foster better relationships between students and teachers as he thought that some of his students were timid. He was observed to employ such communicative intent with his students online:

Extract 2 (Group 6)
Khairul I'll try. but some have not accepted a friend request because they have to apply for permission from their boyfriend.. hahaha you know this is their first year in UBD haha 12 August at 12:20 · Like
SP HAHAHAHA 12 August at 12:24 · Like

Liza also reflected that she often encouraged students' participation by using humour to break silence among the students. Liza believed that if teachers were too stern with their students, they would not participate. Therefore, she insisted that teachers should determine a way to motivate students to respond to conversation such as adopting an approachable style to encourage students into active discussion. This is evidenced as she and her students play with terms of address:

205

Extract 32 (Group 3)
Liza Salam and Hi Sir Hilmi gives us a new update. This Tuesday, the lecture topic is changed because the one who are invited to give talks could not come. make sure all of you are present <u>okay kid..</u> Like · Comment · Follow post · 20 October at 17:51 near Bandar Seri Begawan HA, AM, NR and 2 others like this.
NN okay mom~ =p 20 October at 20:51 · Like
NN Do you know what is the topic? ^-^ 20 October at 20:51 · Like
Liza not sure, we'll see this Tuesday. 20 October at 20:56 · Like
EX sure mom~ 20 October at 23:14 via mobile · Like
NA it's noted sis :) heehe 21 October at 01:48 · Like

Style is nevertheless a personal teaching trait and Ariffin, in promoting social interaction, preferred formal language in Facebook as he did not agree with the idea of using humour in his teaching. He believed that using formal language encouraged respect for teachers, especially in the teaching of MIB in which values are prioritized. He viewed that a less formal practice might sustain a dilution of this respect. He gave a lot of thought to the language he used with the aim of keeping some distance between him and his students, which he found more appropriate. Content analysis of his Facebook group illustrates his belief. He demonstrates using Malay formal language in full form in his conversation and avoids using short form words, English language, as well as everyday language. For him the Malay language is of prime importance and its full form should be adhered to, even in text-speak. This, he considered to be a matter of pride. He termed his approach to teaching via correct use of the language, to the exclusion of other foreign languages, as *'indirect interaction'* and saw it as vital in teaching students the correct manner of communication, whether on Facebook or in tutorial classes or whether with Malay or Chinese students. Further interview data demonstrated that Ariffin felt that social interactions that promote Malay language and the right spelling of words was effective, as students emulated the structure and correctness

of his language in their conversation. This coincided with the content analysis of his Facebook group where his students emphasized the use of the Malay language.

6.3.2.2.2.   Enabling peer to peer interaction (TPK)

The unique *'wall'* that could be found in Facebook could be used to post any information between students. For example, in the Facebook group students post polls to decide their meeting place. According to Khairul, students in his group have acquired good attendance in their group meeting. He stated that the group leader usually records their attendance every week when they meet to discuss their topics. Interestingly, students make use of Facebook such as polls application to get response from their peers regarding their meeting room. The perception of Facebook as an important platform for enabling peer to peer interaction is consistent with the study conducted by Jaffar (2014, p.206). The study discovered that students tend to be more focused on peer-to-peer interaction, thus offering a greater opportunity for information and idea sharing, consequently advancing academic and social interactions intentions.

An extract from Khairul's group 9 shows how they interact casually and playfully in response to their friends' post while deciding the meeting place.

Extract 33 (Group 6)

RN
Salam and Hi.. Since room 3.20 at the library should be attended by 10 person and we only have 9 altogether, so the room cannot be used. And the community room at inspiring hall cannot also be used as it has been booked...So we need a place that is available which I will be listing down tomorrow. Please vote according to your preference. High vote among you people will be the place for our meeting. Thank you.

☐ Anywhere in Library
☐ FBEPS Tutorial Room
☐ Student Centre
  + Add an answer…

Like · Comment · Follow post · 2 October at 23:41
Seen by everyone

BH could not you just tell the librarian we need that room? haha
2 October at 23:47 · Like

6.3.3. Content Knowledge

As defined by Cox and Graham (2009):

> *"Content knowledge is simplified to indicate a knowledge of the possible topic-specific representations in a given subject area. This knowledge is independent of pedagogical activities or how one might use those representations to teach" (Cox and Graham, 2009 p. 63)*

Under this section, I shall draw conclusions from what teachers revealed by observing their views regarding MIB as a philosophy subject area. Therefore, it will include cultural affordances of Facebook and their concerns in MIB content aspects that correspondingly contribute to the understanding of teacher content knowledge.

6.3.3.1.   Cultural affordances (TCK)

Cultural affordances refer to the extent to which the Facebook groups could provide an MIB environment in which the students could conveniently implement and instil the spirit of MIB in their interaction with one another.

Khairul thinks that social media not only produces a positive impact on MIB education in higher institutions but to MIB philosophy itself. He holds views about how social media can be used as a medium for MIB philosophy discussion, thereby promoting important approaches to reach outside societies in order to include a wider community.

Ariffin thinks that the MIB Secretariat should have social media spaces such as blog and Facebook to help distribute MIB information to the public as well as to countries around the world. He thinks that with Facebook being still in demand and the fact that people still view and 'like' the information shared in Facebook, the MIB Secretariat should recognize the benefit of implementing social media where they can share concise and interesting information with images so that people would be interested in reading them. He thought it would be very good if there was someone to monitor the social media space.

Asked for her opinion regarding the impact of social media on MIB philosophy, Liza indicated the positive point that people have learnt more about MIB since the advance of social media. People now can easily access MIB information. She added that the community would be more able to understand MIB from YouTube, Facebook and Twitter.

Being an MIB teacher for two years gave Ariffin the understanding that Facebook is the new emerging technology in the form of communication that has made a significant contribution to MIB which he believed was beneficial, provided that it was used in a good way. Harnessing information, accepting globalisation and embracing technology whilst maintaining MIB values should be the cornerstone of MIB teaching.

6.3.4. Teacher Concerns

In this section, I present teachers technological concerns. The detailed accounts of the concerns in the aspects of technological, pedagogical and MIB content are discussed in the following section.

6.3.4.1. Technological Concerns

There were several concerns emphasized by the teachers in regards to Facebook from a technological aspect. Among the matters raised were issues regarding internet connection, rapid changes, privacy, financial issues, negative perception and distraction.

6.3.4.1.1.   Internet connection (TCK and TPK)

Not surprisingly, internet connection was a concern among the teachers too. Students according to the findings in Chapter 4 similarly regarded internet connection as one of their main concerns. Students perceived that not having internet access is one of the reasons that lead to the occurrence of inactive members in the Facebook groups. The analysis of the Facebook data also confirms that the internet connection issue was the main challenge encountered by students. Below is the example of student message regarding the internet connection issue:

Extract 34 (Group 1)

DS If you have info posted in Facebook you can WhatsApp us so that we can check the Facebook group. You know our internet connection is at the speed of the turtle.
29 August at 20:40 via mobile · Like · 1

Khairul considers that speedy Wi-Fi would be a major requirement in order for the MIB module to be achievable if it is to be integrated with state-of-the-art technology such as Facebook. His display of frustration with the existing slow Wi-Fi connection in Brunei is obvious. This slowness to some extent interferes with the pedagogical activities of teachers.

For example, Ariffin reflected that sometimes his students missed information he distributed in Facebook, particularly those who lived in rural areas where the issues of poor internet provision were the key factors.

Liza echoed the concerns of teachers by highlighting the problems surrounding internet connections and speed for the deliverance of teaching and learning. She revealed that she

needed to re-enter the University password every time the connection was lost and when it was connected the internet was slow.

Therefore, the inconvenience in joining Facebook caused by complications with internet connection might result in student non-participation in Facebook group. Hilmi illustrated that out of 11 members in the Facebook group, there was one student who did not join in any of the conversation. Hilmi reasoned that the student had difficulty in connecting to the internet.

Therefore, Hilmi stressed the importance of making internet connection available for everyone in order to reinforce social media usage among teachers and students and he felt that the main responsibility for improvement lay with the University in the need to provide a better Wi-Fi connection.

6.3.4.1.2.   *Rapidly changing platform (TPK)*

The world of technology is changing so fast that many industries, including education, can barely keep up. Constant technological revolution could make educational planning difficult for teachers. Mayfield (2008, p.6) also tends to agree that innovation and change are inevitable processes, therefore, most social media aspects such as participation, openness, conversation, community and connectedness will change across time.

Equally users drive such change and developing habits of use was reflected in this study. While Facebook was the tool of choice, in practice this was not where all teacher-student interactions happened.

Liza is a case in point. She indicated that she is constantly searching for ways to make use of the affordances provided by social media for delivering information in an effective way. Liza affirms that some students do not even see information that she posted in the Facebook group. Students keep asking her the same questions in the WhatsApp group. That was when she decided to use both social media spaces: WhatsApp and Facebook, for the convenience of

the students. Being flexible in her teaching techniques, she was open to follow students' preference of social media. When she thought there was another helpful medium that students were more inclined to use, she considered using just that. Nonetheless, she acknowledges that Facebook could still be used in teaching provided that all of the students have a Facebook account. Liza thought that it would be fair placing the social media selection in the hands of her students and giving them freedom to choose social media with which they are comfortable.

Khairul in his experience using Facebook in the MIB module and his other modules said that nowadays it has moderate usage because currently the use of Facebook among students has declined. He compared the usage of WhatsApp to Facebook, where the former is much faster to receive information. Yet, Khairul had reservations about using WhatsApp as he always missed the conversation in the group, especially, if he delayed reading the messages. Khairul appreciated the speed of gaining information on Facebook, but felt that people were possibly tiring of it. As he had already explained, students were involved in other activities in their assignments and meant that they spent less time on discussions on Facebook. Their rate of participation had therefore declined. Asked if he was still using Facebook in his MIB teaching he said that it was to a lesser extent as students were more intent on using newly emerging applications, such as Instagram. Moreover, Khairul revealed that his students do not have a Facebook account and think that Facebook is outdated.

For this reason, he suggested there is a need to concentrate on one social medium for teaching because having a distinctive social media space could encourage response from everybody. He thought that the University of Brunei Darussalam must be proactive in resolving the problem.

6.3.4.1.3.   Privacy (TPK)

According to Freishtat and Sandlin (2010, p.515), the issue of privacy has become the biggest issue Facebook has confronted.

Liza recognised that the reluctance of students to participate in the Facebook group was mainly because of privacy concern. Students were self-conscious if their way of life were to be visible to others. According to Liza, some of her students would usually leave the Facebook group after they finished their part of group assignments such as presentations. Evidence from Liza's interviews revealed that students were aware of the privacy issues while implementing social media but somehow others still could access their personal details. Liza stated that this may be due to their inexperience at being able to restrict their Facebook privacy settings or to fully implement Facebook's periodic updating of settings. While using social media in teaching, Liza emphasized that these privacy matters were the key challenge for her teaching with Facebook as Facebook according to her was not only a place for acquiring educational information but also incorporating non-educational knowledge such as gossip. She received students' private messages notifying her about other students' personal life that they found out from Facebook. This is the shortcoming of Facebook as it could reveal personal information of users without them knowing.

Liza also pointed out that students had another private Facebook group with their friends besides having the Facebook group with her as a tutor. From her experience students were not comfortable having discussions in the presence of a teacher. Her students admitted that they were more comfortable if the teacher was not participating in their Facebook group discussion as they considered it difficult for them to discuss something that amused them. This finding from the interview is related to the findings of the questionnaire in Chapter 4 which suggested that 'Contacting colleagues'. 'Talking to colleagues' and 'Question and Answer with Colleagues' were reported as being of significant use rather than with a tutor. It is noted that peer to peer activity ranked higher than student-tutor. Furthermore, s study by Jaffar (2014, p.206) indicates that students express their uneasiness at the indication of their teachers partaking *'a being there'* in what these students view as their *'private personal space'*.

In comparison, in Hilmi's Facebook group, students show active participation regardless of his small contribution. Conceivably some students would prefer the teacher to be absent in the

Facebook group so that they could discuss freely and more comfortably without having the feeling of being 'watched'.

By the same token, Khairul, reflected that his students are reluctant to join Facebook primarily because of the issue of privacy. He viewed that Facebook usages among the younger students was currently declining as young students nowadays are turning to other services, particularly Instagram, as a substitute for Facebook which to them is much safer to manage in privacy mode.

6.3.4.1.4.   Financial issues (TPK)

The issue of affordability also led to technological concerns as it could cause student non-involvement and result in them being left behind in Facebook activities.

Khairul revealed that students usually get access to Facebook and WhatsApp using their 3g smartphone, however a lack of phone credit caused them to be left behind. The issue of students needing to use the university facilities presented further obstacles as University of Brunei Darussalam itself has slow Wi-Fi. He provided one theory that students who preferred WhatsApp and neglected Facebook were economizing. What he meant by economizing was the fact that Facebook required good internet connection to load, however WhatsApp via a phone with low mobile data was considerably more affordable.

The affordability of phones, computer and internet access for some of the students was a key factor which caused them to not be able to participate in social media learning such as Facebook. According to Hilmi, not all of the students could afford to buy their own computers. This situation put unfair demands on some students, whilst others had easy access to Wi-Fi at home and benefitted from learning with social media. Furthermore, access to the University's computers was limited. His observation told him that students were not disposed to spending a lot of money on being able to access social media when they might have a

different use for that credit on their phone. Ariffin also held a similar view that not all students come from a fortunate family. He saw that some of his students did not even have a phone.

6.3.4.1.5.   Distraction (TCK)

In my observation, chronological newsfeed of Facebook has a tendency to show users almost everything posted by their friends and Pages they 'Like'. Advertisements, spam and games are also available in the newsfeed. According to Ariffin, students could easily get distracted with other Facebook content when engaged on Facebook. He regards this as challenge in using Facebook as complementary space. Eventually, students, as stated by Ariffin tend to procrastinate if they fail to control themselves. Questionnaire findings from Chapter 4 also disclose that the students' realise that Facebook can lead people to become distracted from their daily activities and have the possibility to promote procrastination among users. Previous research (Meredith's, 2012; Wise *et al.*, 2011; Minocha, 2009; Wang, 2012; Jaffar, 2014) reveals that instead of enhancing social engagement to effect an equal upsurge in academic engagement, it is clear that Facebook has a greater chance of functioning as a distracting influence that leads to procrastination.

6.3.4.2.   Pedagogical Concerns

Although teachers highlighted the constructive advantages of Facebook from a pedagogical aspect, they expressed some concerns.

6.3.4.2.1.   Unskilled (TPK)

A lack of skill in using Facebook in teaching and learning to some extent could interfere with the smoothness of teacher-student communication. According to Nosko and Wood (2011) in previous literature believed that limited expertise in social media may possibly cause discrepancies and conflicts or confusion for teachers. It may present a challenge for teachers and students regarding how they can use it to enhance the learning experience.

Teachers may be pedagogically knowledgeable but not necessarily skilled in handling new technology such as Facebook. Students may want to take part in sharing and conversing in Facebook group but have difficulty familiarizing themselves with it.

Ariffin equally had the experience where his older students in the group were not used to communicating within Facebook. However, the students were eager to learn about using Facebook technology as they were aware of the importance of having a Facebook account as it was useful for students' interaction.

This could also be related to the first interview, in which Noor is concerned with the lack of knowledge in conducting Facebook in teaching. Noor believes that if teachers do not know how to use social media then the implementation of social media in MIB module will be of no use.

Therefore, in this digital age teachers will need to learn continuously with and from their students, while students should learn to accept the new learning environment in their learning and learn to use technology.

6.3.4.2.2.   Students participation (TPK)

Students' willingness to participate in MIB Facebook group is essential in teaching and learning via Facebook. Liza raised her concern that some of her students could not participate in the group discussion for a variety of reasons for example, some of her students wanted to keep their knowledge to themselves. Some students did not want to participate because they refused to share their knowledge among their friends as they worried their ideas would be taken by others to be written for their assignments and this would contribute to distribution of their grades. This was one of the reasons some of the groups were not active and this becomes one of the challenges in sharing the MIB content with their colleagues.

Moreover, according to Liza, her in-service students mostly did not have a Facebook account and were using WhatsApp. This led to a number of students that were recorded inactive in the study of her Facebook group. This meant that the Facebook group was deemed to be less active in comparison to the WhatsApp groups.

Another reason according to Liza is that students did not want to participate in the Facebook group because there were embarrassed by their inappropriate clothing because they thought it still could be visible to their colleagues. That was why they refused to join. She stated that if she added them to the (Facebook) group, they then would leave it. According to Liza, they were afraid if their way of living was exposed because some of them are transvestites. My observation is that these students presumably want to hide their identity on campus but outside campus, they disclose their self within their approved group of people. This is an example of how a change of medium can penetrate boundaries that a student might have preferred to keep secret. From their perspective, the institution is crossing into areas that they do not want it to. At first sight, it is related to *'privacy'*, however, a closer look reveals there is more to it than that as it is also a question of choice not to participate.

Therefore, a way of encouraging students to contribute in social media discussion was to announce that students would get marks for participation. Using this approach had been a success for Liza. She states she gave one mark for each participation based on who was active in answering questions. Further to this, one mark was given for each posting in social media groups. At the end of each semester she would average these marks together with their exams marks to determine final grades.

Khairul identified he would usually accredit students who were discussing the topic given. He declared that students would not be awarded marks if they failed to contribute in the discussion. Elaborating a point could also contribute to good marks, but simply quoting the point would not gain them. He admitted that it was awkward to arrive at a fair distribution of marks as there was only a total of 15 available for each student. If, for example a student gained 30 marks in class for a significant contribution, then this was halved to the full 15

admissible. For students who received fewer than 30, their total was similarly halved and they were dissatisfied with the resulting 2 or 3 marks, which illustrated their relative inactivity. He declared that he would give full marks at the end of a semester.

Ariffin was clear how he would award points for activity in the Facebook group. He said that "*If they were active in Facebook, I'll give them a mark*". What he meant by active are students' activities in Facebook groups such as giving their comments and feedback, sharing information as well as discussion.

Hilmi assessed his students according to rates of participation in the MIB social media group. He said that marks were given for asking academic questions as well as answering his questions and providing valuable ideas. He revealed that he would also award minimum marks for having joined the group without actual active participation.

6.3.4.2.3.   Teachers Acceptance (TPK)

Khairul thought that acceptance of using social media by teachers was currently inadequate and hoped that such acceptance in the method and practice of teaching throughout all generations, especially from lecturers would lead to MIB module success. Khairul said that since Liza and Ariffin had left the university to take up other jobs, there was only he and Hilmi who were using Facebook in teaching MIB as there was no compulsion from the university and others did not see the benefits.

He also recommended making the social media participation compulsory in university, for example having consolidated teaching and a learning plan which specified the number of hours for students to join the social media space and clarified the importance of active participation. He noted that today implementation of social media is dependent on students' and teachers' own self-motivation that is not compulsory. He clearly admitted that he would only participate in the Facebook discussion if he thought that he needed to join in.

6.3.4.2.4.   Assessment Challenges (TPK)

The challenge of assessment according to Khairul was the introduction of a scheme of work outlining new rules of marking that was based on grading on a curve. Students who could be awarded with an A grade consisted only a small number of students where most would get a C grade. He mentioned that every semester there would be failure among the students. For this reason, students needed to compete among themselves and marks for participation became an important factor in the determination of final grades. He felt that the new marking system posed difficulties to the teaching curriculum. The pressure from the university new grading scheme was the current challenge in term of assessing students' work. Students' grades according to Khairul would be assessed from both faculties and a University committee to determine students' final grades.

The assessment challenges respond to why students in Liza's group did not want to share their knowledge among their friends as they were concerned that their ideas would be taken by others to be written for their assignments. Students need to be outstanding to get excellent marks, which is why they acted as Liza stated.

Frustration with the difficulty in giving commensurate marks to students caused Khairul eventually to revise the structure of his curriculum for his other module differentiating the contribution of individuals. The new mark scheme incurred the need to rethink what assignments would allow the students to receive good grades. Research work was a problem area, because although much good work and interesting conclusions were produced, under the new system students did not necessarily gain credit for their efforts. His solution was to keep the traditional format in the modules comprising fieldwork and tests.

6.3.4.3. MIB Content Concerns

Content trustworthiness and negative perception of technology are the mentioned concern among the teachers regarding to the MIB content. In what follows, are the details which emerged from the interviews.

6.3.4.3.1. *Content trustworthiness (TCK)*

The trustworthiness of the MIB content created in social media such as Facebook is questionable. The findings tend to align with assertions made by Roslan (2011) that various religious beliefs and other streams of thoughts-traditions have been widely spread and garnered the attention of the Bruneian community.

Hilmi's main fear was the possibility of people misusing social media and promoting harmful information to deviate from people's religious faith. He also expressed his concerns of the possibility of exposing people to undesirable elements of social crime such as drug syndicates. Exposure to false information was another alarm identified by Hilmi, where scammers could trick people to give their personal details. He also brought up the issue of trustworthiness in his first interview. This displays that he understands the considerable significance of this issue.

Interestingly, Liza also shared the same view as Hilmi. Going back to the first interview, Liza points out that students discover information in social media, and share it with friends without undertaking research on the trustworthiness of the data. According to Liza, negative information that usually can easily be shared and read via social media such as Facebook might influence students to think badly about their own identity.

All of these could pose a threat to MIB philosophy. For instance, in terms of deviating people from their Islamic belief and influencing the Malay community to do something corrupt that is opposed to the kingdom's rules and regulations, a destabilisation of the Malay community

could conceivably result. This revelation by teachers is a clear example of perceived tension between social media and MIB.

6.3.4.3.2. Foreign culture exposure (TCK)

In terms of moral threats. Findings from the questionnaire in Chapter 4, specified that students perceived Facebook might contribute to a harmful impact on MIB Philosophy in terms of its capability to expose foreign culture material and the availability of a negative influence on MIB. This finding as well is related to previous writings by Othman (2011) where she also maintained that young people are likely to be influenced by Western cultures, especially through contemporary technology and media advancements. The underpinning reason for the assertion is that new technology has opened up cultures and made western culture relatively accessible compared to the situation in previous centuries.

In response to this issue, Ariffin agreed that social media has its own challenges such as the exposure to foreign culture. However, it would have a harmful impact on someone who implemented it in a negative way. Ariffin's conclusion was that it depended on the responsibility of the individual to act appropriately and much was determined by the way in which a person had been raised. If good values had been instilled from an early age, then the individual was less likely to be easily influenced by harmful elements.

Being an MIB teacher for two years gave Ariffin the understanding that Facebook is the new emerging technology in the form of communication that has made a significant contribution to MIB which he believed was beneficial, provided that it was used in a good way. Harnessing information, accepting globalisation and embracing technology whilst maintaining MIB values should be the cornerstone of MIB teaching.

Asked about the questionnaire's findings Khairul replied in a philosophical way by stating '*to be a better person, we must identify our enemy'.* He also stated that *'if we do not see the outside world, we will be left behind'*. He felt that people needed to appreciate that exposure

to foreign culture was in no way a negative factor. He viewed that people should know how others live in order for us to reflect on their way of living. Khairul concluded that it is not necessarily true that social media exerts a bad influence, but interpretation of what we learn depends on people's upbringing and how they were educated

6.3.4.3.3.   *Mixed language (TCK)*

Mixed language becomes one of the concerns of using social media in education as students potentially use SMS language and English language in their conversation.

Ariffin voiced his concern that using mixed language or English language rather than the Malay language could be a challenge to MIB philosophy and could cause the decline in linguistic knowledge among young people of Bruneian and lead to the extinction of tribal languages. He was insistent that using the Malay language without inclusion of foreign items was vital to educational success in whatever medium.

As I look into Yunus' first interview, he contradicts the statement by Ariffin. Yunus would argue that students using mixed language and SMS words in social media is not a big concern, not too negative and could still be controlled by students. It is because a student would know when to use mixed language and when it was not appropriate, such as speaking in a presentation and writing in assignments.

6.4. SUMMARY

The first interview explores teachers' perception of social media in teaching and learning MIB as well as determine their certainty of whether social media can help transform the MIB module.

From the interviews, it is viewed that social media was able to provide progressive impact on MIB philosophy by virtue of its convenience as people at present can easily access MIB

information and also can be used as a medium for MIB philosophy discussion, thereby promoting important approaches to reach outside societies in order to include a wider community.

The rest of the interviews provided comprehensive responses regarding their MIB teaching with technology with examples of their experience. For example, Facebook, WhatsApp and Blogs are the most used social media by lecturers and students, since they find that using these spaces was convenient, complemented time-limited tutorial class, encouraged students to speak and enhanced teaching and learning MIB. Social media is also viewed as to be a useful tool for communication, particularly when there is a large number of students, as in the MIB module. It was felt important that lecturers should act as guides or leaders in the use of social media in order to increase the quality of learning.

Conversely, there are also general concern in respect of issues concerning students' participation, privacy, internet connection, an uncontrolled environment and financial support.

In the second interview, teacher reflected on their teaching via Facebook. Teachers reflected that social media such as Facebook is best suited to learning MIB particularly in higher education as students are within the age group which is particularly exposed to social media. The potential of social media such as Facebook in regards to the second interview could be viewed in its attribute in regards to pedagogical affordances, social affordances, technological affordances and cultural affordances.

In terms of pedagogical affordance, findings show social media could potentially support teaching and learning approaches that promote student-centred learning, constructivist learning and collaborative learning. As a popular social networking space, Facebook tends to motivate students to participate in a virtual learning environment. Teachers may well present learning materials such as videos, PowerPoint slideshow, lecture notes, student reports samples or inserting hyperlinks as integration in Facebook group learning environment. Additionally, teaching practices such as facilitating students, giving direct instruction and

designing a curriculum might be performed in a Facebook group. Its social networking design also allows students to make use of their cognitive thinking by means of discussion between the members of the group.

With regards to social affordances, Facebook not only could support peer to peer, students-to teachers in a small group or as the whole classes interaction, it also promotes peer to peer feedback. Interpersonal communication, open communication and cohesive communication that are shared among teachers and students mirrored face-to face interaction but then in a virtual way.

With respect to technological affordances, Facebook's unique features enable users to easily create content, transmit and receive information as well as to log in anytime and anywhere. In terms of cultural affordances, it certainly is able to promote MIB philosophy to a wider audience as it could be used as a medium for MIB philosophy discussion and the distribution of knowledge.

All these affordances may possibly address pedagogical problems raised, such as lack of engagement due to the large numbers of students. It also displayed a great potential for the distribution and explanation of MIB philosophy in an innovative way to address the issues of less interest among the students due to the arid delivery of traditional methods.

Obviously, social media does not come without a price. I have evidence from the data findings that this new emerging technology has the capability to solve pedagogical problems in the MIB course, but at the same time have pedagogical and technological concerns as well as the presence of cultural obstacles in the path of its acceptance by teachers.

The findings reported here reveal a pedagogical concern in respect of issues concerning unskilled teachers and students, mixed language, students' participation, teachers' acceptance and assessment challenges. Furthermore, there were also several concerns emphasized by the teachers in regards to Facebook from a technological aspect. Among the

matters raised were the unavailability and slowness of internet connection, rapid changes of new emerging technology, privacy, financial issues and its distracting influence. In addition, the unreliable MIB content that could be found on Facebook and the exposure to foreign culture material are the mentioned MIB content concerns among the teachers.

CHAPTER 7: CONCLUSION AND DISCUSSION

7.1. SUMMARY OF THE RESEARCH

This study set out to gain insight into perceptions of social media by students and teachers in the University of Brunei Darussalam as a background to its use as a pedagogical tool in the particular context of the teaching of *Melayu Islam Beraja* (Malay Islamic Monarchy) or MIB, a required component of education from school to university. With the teachers as the main focus for attention within a number of Facebook groups, the study explored how perceptions and use related, and looked for their articulations of pedagogical affordance framed by the knowledge constructs of TPACK. Through analysis of teaching activity and teacher articulations the study sought to identify the contribution social media might make to the learning context with its identified structural constraints and the specific content challenges posed by MIB. The following presents the main conclusions to be drawn from this investigation, and thus, the answer to the research questions which framed this study.

1. How do students perceive social media in the context of its potential challenges to MIB philosophy?
2. How do teachers facilitate engagement in the Facebook setting in the context of the MIB course?
   a. Is there evidence of cognitive and social engagement?
   b. How do teacher practices facilitate such engagement?
3. How do teachers articulate their understanding of social media particularly Facebook in relation to pedagogy, content and technology knowledge and to the tensions which exist in this setting between the different elements, represented by these types of knowledge?

In exploring this teaching and learning setting within this frame, the research has advanced the understanding of the field. PK as the 'bridging' form of knowledge here helps to close the

potential tension (the cultural gap between CK and TK). This research also discovered that TPACK is also something which developed in students as well as in the teachers. Both teachers and students were manifesting teaching presence in the environment in their own right. Social media has provided the means by which they could do this. These points are the original contribution and the section below concentrates on my key findings.

7.2. KEY FINDINGS

From the summary in the previous discussion of findings from the chapters, I have identified some themes around the affordances of social media in education. However, the salient themes that are addressed in this section could help teachers develop their teaching proficiency in using social media in education, thereby making it more likely that the potential effectiveness of Facebook can be actually manifested in teaching the MIB subject.

7.2.1. Privacy Issues

One example is the issue of privacy in teaching with Facebook. Liza in her interview stated that students '*were afraid if their way of living was exposed'* and that was the reason why students were reluctant to join the Facebook group she created for MIB. Khairul also agreed privacy issues on Facebook are the reason for students to use other social media applications such as Instagram. This relates to the previous literature (Freishtat & Sandlin: 2010, Woodley & Meredith: 2012, Friesen & Lowe: 2012) that points out that privacy issues are the major concerns and the biggest controversial issues associated with Facebook.

The ability to control privacy is also observed by Friesen and Lowe (2012, p.191) as being difficult to handle while using this social platform. Teachers in this study also learnt that students are aware of privacy issues in Facebook as they think it may have considerable negative implications, as their private life can easily be exposed to large numbers of people without obtaining their individual consent and without them noticing. It becomes difficult for students to control which of their attributes are being revealed by social media. As an example

of privacy issues connected to Facebook is that I, as a member of the MIB group can observe students' activities. I am able to see if they are 'liking' a post, making a comment, posting photos, uploading videos and sharing reading articles as well as sharing where they are located at that time. I also get notification of these activities of the students and teachers and am even informed if that day is their birthday. I can understand that this is what the students mean by their disquiet about exposing their private life as they sometimes are not conscious that there are people who can read and follow their activities.

From this experience, I should comprehend that concerns of privacy nowadays are problematical by the voluntary adoption of technologies that reveal private information to others. Sometimes users are unaware of the possible privacy issues surrounding the collection or disclosures of photos or video students take and publish on Facebook group as well as their location, age, and gender. It is understandable that people are reluctant to have a Facebook account or other social media account that has similar features because they diminish their trust in online services, or even completely deter them from using digital technology as the risk that the mounting consciousness of digital disclosure may adversely affect people's involvement of digital technologies.

Consequently, the Facebook group is not perceived as a safe environment, even though it makes available the right to use different controls to establish whether they wish to be public or private. The students did not perceive it as a safe environment as they were commonly concerned about their private info and the likelihood that their societal lives might be scrutinized by their teacher and their colleagues.

Yet, I also saw in the groups such as Khairul's, evidence of a certain level of self-disclosure where students are happy to share some personal information regarding themselves, for example, a student who revealed she did not understand the meaning of a word and then admitted that her Malay language is not fluent, as well as a student who admitted that he needed help regarding the topic because he could not find suitable resources. This kind of self-exposure is not the same with the privacy issues that personal data could be exposed to

others as has been discussed earlier. In this context, students' disclosure of their personal information is mainly in order to get online support from their tutor and colleagues by revealing their struggles in their learning. Facebook has the capability to deliver an environment of shared disclosure and support. Students use these Facebook spaces to discuss their academic struggles and disclose feelings and opinions relating to these struggles. Barak and Gluck-Ofri, (2007, p.415) state that disclosures by other users may inspire other online users to *'reveal more of their thoughts and experiences'*.

Therefore, there is a difference between personal life exposure and academic life exposure for students. Exposure of personal life is perceived negatively while revealing their academic weakness to find support is considered the positive effect of Facebook on learning with social media.

7.2.2. Flexibility

Other knowledge that teachers acquire in teaching with social media is the benefit of its flexibility. Liza mentioned in her interview that there were occasions when tutorial topic discussion was taking up too much tutorial class time and she asked her students to make use of Facebook by continuing their discussions there.

Hence, learning with Facebook also proves how its affordance could make students experience not only asynchronous but synchronous (real time) communication that does not show some delay in responses which has been termed by Ashley (2003) a *"same time-different place"* mode. Findings from Facebook content analysis show continuous conversations that resemble face-to-face discussion where the teacher facilitates the students, for example, teachers and students are continuously exchanging conversation within a time gap of a few seconds.

Teacher learned that students use social media as a way to ask for assistance and share knowledge and ideas in real time, simultaneously exchanging their thoughts and observations

with a small group of friends and teachers, each of whom was located in a different place and online at any time. Previous literatures (Wang *et al.*, 2012; Li and Pitts', 2009) revealed that the use of social media such as Facebook enhanced the level of student satisfaction. Social media enhanced student satisfaction by facilitating a close student-teacher relationship, thus enhancing the extent of virtual office hours.

In an ideal world, teachers should give students as much attention as possible. Personal attention promotes good education because the teachers can explain topics to students in ways which are personalized to their learning style, and focus on specific details that the particular student may not understand. Nevertheless, this can be challenging and a lot of work for a teacher who is teaching with social media because students can interact with them at any time inside and outside working hours.

Students usually expect teachers to answer their questions as well as be in charge and take control of any situation. From the questionnaires' findings *'No response from teachers'* was an occasional response from students. Thus, this suggest appropriate flexibility requires teachers to be *'there'* at any time where interruptions and disruptions are the norm in teaching lives.

However, I also saw in the content analysis of Hilmi's Facebook group that his students could compensate for the absence of the teacher, using the pedagogical affordances of this technology to do cognitive, social and teaching presence work that in the *'traditional'* MIB learning environment they might not have had the capacity or opportunity to do.

Therefore, this suggests that some students need their teacher to be there to facilitate them while some are happy to conduct discussion among themselves. Here again, it is substantial to highlight in what manner students are developing their own forms of TK and PK.

Liza in her interview indicated that she had to take part in WhatsApp discussion with students asking for assistance even at 3 am. Similarly, Khairul's Facebook content analysis findings

demonstrate that he usually chats in the Facebook group with his students at midnight and his interview confirmed the practice of discussing at night as he was busy working in the morning and besides, students are attending morning classes.

Flexibility also requires the teacher to modify which social media are suitable for the students' needs. For example, Liza interview finding shows that as a flexible teacher she would be amenable if students chose WhatsApp rather than Facebook if they were more comfortable using it.

However, there are some teachers such as Yunus, who did not use Facebook for group discussion, inferring that the downside of social media is that it caused disturbance, sometimes at unacceptable times. This indicates that he is not comfortable with students communicating with him at certain hours. Similarly, Noor in her interview thought that it was unreasonable for teachers to be expected to be available on their phones at any time of day and night, answering students' questions that are endlessly repetitive.

7.2.3.Tensions and Challenges

Teachers also develop knowledge concerning the tensions and challenges in implementing social media in MIB education. The interview data findings show the potential for tension to arise between the social media and MIB philosophy, causing the former to be incompatible with the latter. Hilmi's interview data shows that his concerns of the possibility of people misusing it and taking advantage by promoting harmful information to deviate people from their religious faith. He also expressed his fears of the possibility of exposing people to undesirable elements of social crime such as drug syndicates. Exposure to false information was also the fear identified by Hilmi, where scammers could trick people to give their personal details. Similarly, Liza was also concerned about the distribution of negative information of MIB in social media that can easily be shared and read that caused students to be influenced and begin to think badly about their own identity. All these issues could lead to threatening MIB philosophy as these could deviate Bruneian Malay Muslims from their Islamic belief and

influence the Malay community to do something corrupt that is opposed to the monarchy's rules and regulations and lead to destabilizing the Malay community. In addition, it could also create misperception of MIB philosophy to younger generations such as students following the false and negative MIB information. Questionnaire findings also endorse the fact that foreign culture exposure and negative influences on MIB could easily be found in social media and constitute the greatest concern which needs to be addressed in relation to the MIB Philosophy. Moreover, with the advancement of technology, many threats have surfaced. Universiti Islam Sultan Sharif Ali Rector Dr Norarfan bin Hj Zainal claim that dubious teachings quickly spread through Facebook, Twitter, blogs and WhatsApp. He added that only those with strong faith and the right religious background and knowledge would be spared from this deviant threat (Othman, 2015)

However, there is no evidence to support the teachers' claims regarding the issues of harmful material and threatening information in the Facebook groups I observed. It is probable that these occur not in the MIB Facebook group but students' personal Facebook newsfeed, where they are constantly updated with friends' activity that might contain negative information. The only observable data in the MIB Facebook group of students is the use of English and SMS language. The use of these languages potentially has a negative influence on the Malay element of MIB. Students themselves identify the frequent use of English and SMS language in their conversation through Facebook. They perceived that this could weaken their ability to speak Malay which is the official language of Brunei. This could be interpreted as an excuse for a decline in their skill at using the Malay language, by indirectly blaming Facebook for encouraging them to prefer other means of communication, at the expense of their native tongue.

7.2.4. Internet connection issues

In addition, the issues and problems in integrating social media in teaching the MIB module were largely as a result of the internet connection issues. Hilmi's interview data reveals that the University of Brunei Darussalam Wi-Fi connection is not stable whereby students and

teachers were often disconnected from the line. Khairul stated that students would have to rely on university Wi-Fi which has slow internet connection. Similarly, Ariffin also stated the internet connection is also the issue particularly for students who live in rural areas who could not find internet service. Likewise, Liza also encounters the same challenges, citing the annoyance of needing to re-enter the University password every time the connection is lost. I also observe that in the content analysis student mention the internet connection as the issue that regularly encountered by students.

In addition to the interview findings and content analysis, questionnaires data also demonstrate that this is the issue in implementing social media in MIB modules which were concerned with internet issues in regard to internet connection and student access to it. Recent report compared the data transmission rate (bandwidth) between Brunei and Singapore showed significant differences since Brunei internet speed is just 39.9 kilobytes per second (kbps) compared to Singapore which has the broadband speed of 387.6 kbps (Kasim, 2015).

7.2.5. Digital divide

Furthermore, the study nurtures teacher knowledge regarding digital divide. It is clear that to implement social media in education stable internet connection, having up-to-date mobile technologies or computers and possessing the knowledge of applying social media are significant to share and access information, exchange ideas and directly engage students and teachers. The study found that students with no computer or internet access in their homes were unable to participate in Facebook group discussion. In the content analysis data I observed that there are a few students in groups who did not join in any of the conversation made. I asked the teacher what happened to them. As illustrated by Ariffin, some students came from unfortunate families who could not afford to have mobile phones. Another case in point of the challenges according to Ariffin was the lack of familiarity of the older students in using social media. Similarly, Hilmi indicates that unaffordable issues were a challenge to implementing social media in education where some students could not come up with the

money for owning computers and thus, these students were highly dependent on University's computers which would mean that they would not have access to computers regularly. Hilmi also illustrated that when I asked why out of 11 members in his Facebook group, there was one student who did not join in any of the conversation, Hilmi reasoned that the student had difficulty in connecting to the internet.

In addition, Hilmi reveals that students think that using personal mobile data plan is expensive, would cost them dearly and lessen their phone credits. Correspondingly, Khairul indicated that internet connection issues are a challenge where students who usually get access to Facebook and WhatsApp using their 3g smartphone would miss participating in the group if they were out of phone credit. It was further substantiated by the recent report that Brunei's telecommunications facilities is amongst the most costly in the world ranking as Brunei is positioned as the 129th out of 148 in relation to affordability (Kasim, 2015).

However, as stated by Hilmi, students with Wi-Fi at home would easily connect to the internet at home and would benefit in the learning with social media, while others have to look for places that have Wi-Fi connection to be able to participate. In the open-ended questionnaire this issue is also raised where the students who did not have access felt burdened because of its charge, and this lead to the incidence of inactive members in the Facebook groups.

Due to these facts, the question of access versus participation becomes extremely important. For example, an under-privileged student may be likely to have a social media account as anyone else, however the frequency and extent to which they are able to use these accounts is what now constitutes this new divide. Many without access may find that despite having a social media account, they are unable to fully take advantage of its benefits strictly because of the digital divide and the restraints they encounter. Considering what is lost by those that are affected by the digital divide, specifically with regards to the ability to fully participate in social media learning, the costs of not having access are countless. The primary drawbacks that students affected by this divide experience consist of a decreased capacity to be able to actively contribute in discussion and acquire important information from teachers.

7.2.6. Affordances of Facebook

Teachers are becoming more aware of the affordances of Facebook. Teaching with Facebook offers new experience of easier communication, supports spontaneous communication, the sharing of information and links with students, involvement with students outside of classroom time which makes teachers and students feel closer as a group as well as teachers observing students supporting each other as they answer each other's questions and solve problems together.

Content Analysis of Facebook groups shows that Facebook helps teachers to organize different MIB tutorial classes into groups, especially if the teacher facilitates a number of MIB classes. Facebook keeps things organized by asking students to join appropriate groups for their class. Teachers are also observed complimenting some of the students on their achievements in discussion and assignments in Facebook group walls and reminding students of assignments that they need to be working on with upcoming due dates so that students stay up to date on assignments. Facebook is also used to share last minute updates, for example if the lecture class or tutorial class is cancelled due to an important event.

Teachers such as Noor and Ariffin in their interview also see that social media encourages online participation, for example in rousing shy students to participate in online discussions. The literature review also suggested that Facebook fosters friendship, thus bringing previously isolated students towards getting genuine assistance from Facebook. Woodley and Meredith (2012, p. 4) also indicated that Facebook can be a useful tool of engagement for disengaged students, thus enhancing their participation in the learning process. Study by Ellison *et al.* (2007, p.1163) also determined that Facebook use eliminates academic barriers by providing a platform from which students who have low satisfaction and low self-esteem can engage freely with their teachers.

Liza's and Khairul's interviews suggested that Facebook makes it easier to connect faces and personalities with names as they demonstrated that they still remember most of their students'

Facebook names when asked. Liza referred to one student who was the most active and Khairul recalled one in-service student who got an A and received a book prize from the university. This is to say that Facebook helps teachers to get to know students. Moreover, in large classes, such as in the MIB module, which consists of more than 400 students every semester, it can sometimes be hard to remember each and every student. Khairul even mentioned in his interview that he still stays in touch with his previous students through Facebook.

From the observation of the Facebook groups, it is evident that the site is used as a place for students to ask for help. For example asking for help on an assignment problem by posting on a Facebook group wall which both teachers and students can get involved with as well. As a result, teachers help to clarify directions for students who were not clear and are having trouble understanding an assignment topic.

And the great advantage of Facebook is that it can archive MIB discussions where content analysis of a Facebook group suggests it is a great place to link to and archive weekly tutorial presentation slides and discussions about MIB topics that students can reference if they missed class or need to review.

Another affordance of Facebook is the 'like' feature which is simple in nature. Students and teachers click "like" to express what they think about something. From an educational perspective, 'like' is the easiest way for a member of the group to show their support, agreement and approval without the need to write a comment but by just simply clicking 'like'. The help centre of Facebook defines clicking 'like' below a post on Facebook, as a way to let people know that their posting has been enjoyed without the necessity of further comment (Like, 2014). The silent communiqué of 'like' is an alternative to express teachers' and students' reaction to content and indicate their engagement to members' status updates, comments, photos and links shared. Therefore, this creates a teaching and learning atmosphere and environment in a virtual setting, which lets the members record which of them

have read what has been posted. According to this study, 'like' has a different meaning for teachers and students.

From the content analysis of Facebook group, I saw 'like' is being used by students to display their agreement, for example in agreeing to meet by simply clicking the 'like' button to show their approval of a suggested place. Students are also observed to 'like' their friends' posts of giving opinion as well as 'liking' their teachers' postings. If, for example, their teacher announces something, they click 'like' to show they took note of the message (*i.e. extract 23 of Ariffin's group*). Teachers also are observed to 'like' students' posting such as when students are uploading files for a final presentation draft (*i.e. extract 5 of Khairul's group*) giving the tutor the understanding that the teachers approve of the students' documents, coupled with teachers' subsequent approval of the draft, thereby indirectly motivating the students.

This is where the evidence of clicking 'like' does not just mean someone likes our posting, but it has an additional social meaning where it can be defined in different contexts according to the situation and nature of the post.

With regards to social affordances, Facebook provides the opportunity for 'promoting teacher-students social interaction' as an important tool in building good relationships between teachers and students. Interpersonal communication, open communication and cohesive communication that are shared among teachers and students mirrored face-to face interaction but then in a computer-generated way. Wang (2012, p.64), explained that Facebook offers a ready platform where instructors can use it to facilitate mentorship and affiliate teaching processes. Schwartz (2009, p.4) developed an experience in interacting with students on Facebook. On the basis of his experience with Facebook, he asserted that teachers could find that Facebook is an essential tool for building up mentorship with students.

It is noticed that Facebook not only could support students-teachers interaction but also enable 'peer to peer interaction' whereby student used it to get response regarding learning

matters. Students perceived this kind of peer-to-peer interaction as more valuable than peer-to-tutor interaction when using social media in learning; they perceived this before their use of it on the MIB module, as noted in chapter 4, and my observations showed this was true in practice. This indicates that students are developing their own TK and PK knowledge.

From the knowledge of affordances of Facebook, I can deduce that teaching with Facebook offers many benefits when used appropriately. It is observed to address pedagogical complications raised, such as lack of engagement due to the large numbers of students in lecture classes. It also displayed a great potential for the distribution and explanation of MIB philosophy in an innovative way to address the issues of less interest among the students due to the arid delivery of traditional methods. In addition, Facebook is another tool that can be used to make our classroom more engaging, relevant and culturally diverse. Actually, it has been noted that social media such as Facebook in the current world has more positive effects as compared to stated negative consequences. However, the main task lies with teachers to ensure that the positive effects have the upper hand as they guide students towards the correct use of social media and at the same time still have their MIB values.

7.2.7. Teacher beliefs and implementation

The developing knowledge that teachers evidenced through this study provided an interesting reflection of themselves as teachers and how that in turn influenced their use of social media in practice.

Khairul exemplified a more constructivist view of learning. He encouraged students to practice dynamic cognitive skills (such as recognising problem, giving suggestion, brainstorming and providing solution) to generate further understanding. The teacher makes sure students understands and gives the students to become 'expert learners' under his guidance.

Ariffin has a more traditional approach in facilitating his students in social media. He believes that the student-teacher relationship should be based on respect and thinks that it is necessary

to have a gap between teachers and students where the authority in directing the students is in the teacher's hand. He wants to control and actually gets worried because Facebook seems to threaten that control.

Hilmi on the other hand, in his teaching in learning with social media has the elements of a heutagogical approach as he hands over the control to the students. They generate the content, show active engagement, display group collaboration and exhibit reflective practice through double-loop learning. For the most part, they are forming personal information profiles, inviting friends and colleagues to participate and share information, presenting, discussing and debating their opinion as well as applying social connectedness within the Facebook group community. It is noticed that they can do these things without the active intervention or shaping role of a teacher. From this study, it is evidence that Facebook is indeed able to engage students on the MIB course, in where they are being empowered to shape aspects of their own learning experiences

Liza practises differentiated teaching and learning in which she adopts a flexible approach to teaching in which the she plans and carries out varied approaches such as using both WhatsApp and Facebook to present content in reaction to student differences in willingness, comforts and learning needs.

Noor and Yunus, although believing that social media has the potential to prosper MIB education, did not see these beliefs fulfilled in action. The potential for interruption to their daily activity was too strong to see them implement Facebook in their teaching.

Teachers' teaching philosophies are therefore relevant in terms of how effectively they can use social media in their teaching. The diverse display of social and teaching presence that trigger students' cognitive presence in the content analysis demonstrates how teachers have different approaches in attending to the students.

In my observation, teachers teaching MIB philosophy have their restraints in using social media in their teaching. One of the reasons is that MIB philosophy is a sensitive subject as it has a wide range of subject including politics, religion and culture. Teachers must have profound content knowledge in order to facilitate student conversation so that students who misinterpret this subject can be attended to. If a teacher is deemed to be teaching in a way which is counter to the requirements of the MIB, it will cause a bigger issue. That is why the teachers have different teaching styles, as observed in the MIB Facebook group.

For example, Khairul as one of the most experienced teachers shows confidence in his MIB content knowledge in attending to his students' discussion. He displays he is well versed in MIB content knowledge, therefore he is observed as handling his students well through his pedagogical approach in the Facebook group. Other teachers, however, did not seen to conduct content (MIB philosophy) discussion so openly in Facebook group, as Khairul. My view is that teachers are concerned with their ability to communicate the diverse issues of MIB due to its sensitive nature that makes them prefer to use a private medium to interact. In other words, the sensitivity of the MIB content prevents them from publicly communicating the MIB topics, resulting in less participation among teachers in the Facebook group.

Furthermore, the impact of national culture, might also contribute to teachers dividing opinion, attitude and beliefs regarding the new emerging technology, social media. Negative values that come with social media that potentially could threaten MIB values of individuals, could deviate teachers from using social media in education. . One of the lecturers of MIB, Dr Siti Norkhalbi, in the press release regarded the new media as 'a double-edged sword' that could either help or be an obstacle to the MIB as they have the potential to undermine Bruneian Malay culture and challenge Islamic beliefs in a way that is not consistent with MIB (Haji Roslan, 2011).

Therefore, there are potential relationships that exist between espoused beliefs of teachers on their decision and attitude in teaching MIB with social media. It is suggested that the increasing awareness of this is a potentially useful area for further research.

7.2.8. Teacher Facilitation on Facebook

It is evident in the findings, that the four teachers showed different styles in their essential roles of teaching presence. In the Facebook group content analysis, Liza is noticed to frequently provide reminders to students to maintain her teaching presence. Ariffin, however, is noticed to repeatedly diagnose misconceptions, responding to technical concerns and confirming students' understanding through assessment and explanatory feedback. Khairul on the other hand is more involved in displaying equal teaching presence among the design and organization, facilitation and direct instruction indicators developed by Garrison (2011). Conversely, Hilmi's Facebook data illustrates that his teaching presence did not feature in the Facebook group content analysis.

However, there is difference in the cognitive engagement among students from different tutor groups. For example, despite the absence of Hilmi, his students display adequate cognitive presence compared to the other tutors who do show their teaching presence, such as Liza and Ariffin. As can be expected, with Khairul showing the most teaching presence, his students also display the ability to apply their cognitive presence with his facilitation as the tutor. Therefore, it could concluded that even if there is no teaching presence in their Facebook group, students have the capability to learn autonomously.

It is also noticeable in the findings from the Facebook content analysis of teachers' and students' social presence that they demonstrate social engagement in a positive way. The display of affective expression, expressing vulnerability, giving details of personal life, using humour to tease the members of the group, complimenting others or contents of others' messages, expressing agreement with members' views as well as communicating in a purely social way using greetings and closures were noticeable in the analysis of the Facebook groups. This could be linked to Kaplan and Haenlein (2010, p.61) indication that "*the higher the social presence, the larger the social influence that the communication partners have on each other's behaviour*". They added that the purpose of any interaction is the *"resolution of ambiguity"* and *"the decrease of uncertainty"*. Minocha (2009) termed Facebook *'like a coffee*

place area', where students can '*socially*' support one another and chat relating to their studies. This indicate how Facebook could provide high social presence and support decrease of uncertainty. This also evidence of how students developing their own TPACK.

Clearly, Facebook as the most popular social networking site managed to create a presentable space for socializing. However, the noticeable absence of disruptive or negative behaviour in the Facebook groups could also be explained by the presence of the teachers observing their activities, a presence which was tacitly there even when teachers were not actively contributing to a group. Again, this suggests that the supervision and facilitation on the part of teachers are significant in enabling students to maintain an appropriate attitude while using Facebook, but that this supervision can be tacit as much as active (TPK).

These findings also suggest that it is clear to us that Facebook provides a space for different approaches to learning. The Facebook also brings with it pedagogical potentials such as teachers' capacity to monitor and analyse how their students learn. Students are also able to decide the content and as a result they may be more keen to engage.

7.2.9. Teachers' and Students' roles toward engagement

Additionally, the study fosters teachers' and students' knowledge regarding the roles in promoting social media in the learning environment.

The content analysis suggests that both teachers and students have their central role in the learning process via social media. Teachers and students play a significant role in enhancing both social communication and cognitive development among students. This finding is in contrast with Palloff and Pratt (2003 p.118) who indicate that, "*when the instructor is present- posting regularly to the discussion board, responding in a timely manner, and generally modelling good online communication and interaction - students will do the same, and a high degree of interactivity will occur*". It is also opposed to the previous research studies (e.g. Tagg

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and Dickinson, 1995) that point out that students contribute more in a class session when teachers are encouraging students' involvement than in a class where teachers do not.

Findings from content analysis shed some light on how teachers implemented their roles to support learning activities via social media. For example, teachers showed their attempt to find ways to encourage interaction in Facebook groups such as using feedback and participation in discussion, providing consultation, sharing documents' links and reading materials for the students to discuss and analyse and at the same time facilitate them with feedbacks as well as instilling MIB values in their teaching. In particular, teachers provided learning content and supported students' understanding through explanatory feedback. They also performed their role in identifying misconceptions in students' understanding. Here teachers show how they demonstrate TPACK in their teaching.

Similarly, this facilitative role is observed to be taken on by other students - peers - in the Facebook environment. Students are able to use Facebook as a space to support their teaching and learning, without necessarily requiring teachers to actively assert their presence in the group.

I could identify students' utilizing their critical thinking to relate existing knowledge and generate new ideas in Facebook which verifies their cognitive presence. It is noticed students displayed their cognitive presence indicator such as recognizing the problem, showing puzzlement, exchanging information, giving suggestions, brainstorming, showing differences in views or expressing disagreement (divergence), combining ideas (synthesis), to move towards a point and joining together (convergence) and showing solutions. They can be said to be developing their own TPACK.

Evidently, such a facilitative role was not just the predominant role of the teacher in the context of learning via Facebook, but could be undertaken by the students too. There is evidence of students taking the facilitative role towards their peers, as has been found in Hilmi's group, rather than just teachers to students.

7.3. TECHNOLOGICAL PEDAGOGICAL CONTENT KNOWLEDGE (TPACK)

A way of considering all these constructive and adverse finding is provided by the Technological Pedagogical Content Knowledge (TPACK) framework developed by Koehler and Mishra (2009). As a valuable tool in the discipline of technology, TPACK framework has been branded as a teacher education experience with the aim of assessing content acquired by teachers when integrating technology (*see Figure 7.1*).

TPACK, as a framework for both research and teaching with technology, looks at three domains of knowledge - content, pedagogy and technology - and their interconnectedness. This research suggests three important factors that should be explicitly considered when integrating technology into MIB module: perception of social media (TK), teacher use of Facebook (PK), and the potential threats (CK). All of these factors relate, are interconnected, and need to be considered in order for technology to be normalised in MIB modules and for the potential of technology to be realised in practice.

7.3.1. PK as a Bridge to TCK.

As this study showed, the guideline of teaching subject like MIB is not presented in TPACK framework. Similarly, the guidance to the situation of incompatibility between the technology and content knowledge has not been discussed. Mishra *et al.* (2011 p.5) agree on the fact that the TPACK framework offers little guidance about what content to teach, which pedagogical approaches are useful, and what kinds of technologies are worth using in teaching. In this study MIB is not just a subject matter like Chemistry or Maths, but concerns teaching that foregrounds the national identity, that is about a way of thinking and concerns long standing traditions that govern the way of life of Bruneians. Social media, gives rise to perceived threats to one's cultural values. Study by Morgan *et al.* (2012, p. 3491) in a case study of Wikipedia state that national, religious and cultural differences can lead to conflicting ideas of what content Wikipedia should publish and how that content should be presented as most of the articles focused on American and European concerns and the presence of a western bias.

This does not apply only to Wikipedia however could also be related to Facebook. This suggests a possible tension, where MIB philosophy is trying to embed in the Bruneian people MIB values and prevent infiltration of unwanted elements that are not suitable to the nation's very own identity, whilst social media expose users to foreign culture.

To put it another way, it can be argued that there is a potential tension in the use of social media (Technology Knowledge) that does not necessarily go hand in hand with MIB philosophy (Content Knowledge), however the crux is how teachers mediated this through Pedagogical Knowledge. To avoid this tension, good teaching (Pedagogical Knowledge) can bring all this knowledge together and is evidenced in teachers' pedagogical content knowledge. Pedagogical knowledge acts as a bridge where teachers play a key role in guiding students and inculcating good MIB values within them so that students are able to take the best out of social media and filter away negative or harmful elements in it (*see Figure 7.2*).
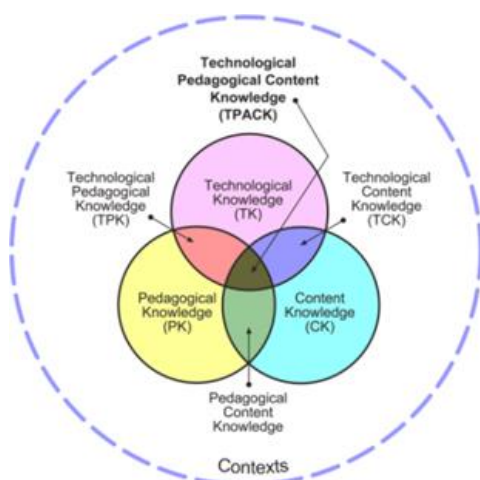
Figure 7.1: The ideal components of the TPACK framework: TCK Harmonious?
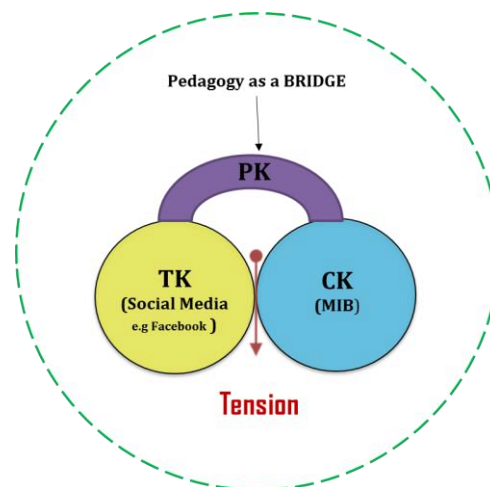
Figure 7.2 The tension TCK component of the TPACK framework

Based on the tension, it is clear that relationships among knowledge bases are more complex than as defined or expected. Although Mishra and Koehler (2009) have provided definitions of TCK, TPK, and TPACK that articulate to some degree the centres of these constructs, according to Cox and Graham (2009, pg. 60) the boundaries between them are relatively fuzzy, thus limiting the ability to categorize borderline cases. Important in this study, with the

specific relationship between social media (TK) and MIB content (CK), is the role of PK. As seen in the data TCK has the potential for creating tension, for example the findings from chapter 4, 5 and 6 suggest the potential of social media to drown or influence Bruneian cultures in a way that is not consistent with MIB and put forward the fact that teaching and learning in social media have an effect on Malay language usage and the possibility of foreign culture exposure that might cause a negative influence on MIB. Hence, teachers use pedagogical knowledge to guide the students to make use of social media appropriately in learning MIB (TCK). In other words, teachers' pedagogical knowledge acts as a bridge to overcome the inharmoniousness of technology knowledge and content knowledge, which means that TCK requires Pedagogical knowledge (PK). Therefore, to understand TCK in this context, PK acts as a bridge to form TPACK.

This bridging activity is seen in teacher presence in the Facebook groups. Teachers were also observed making use of Facebook features to offer new and interesting resources and a platform for learning where students can find and create knowledge of MIB content. Teachers gathered MIB article links, documents and more to share on the Facebook group, curating valuable MIB resources for the class. In other words, teachers as content creators posted MIB information, sharing MIB content knowledge and sparking discussions through Facebook and students showed their cognitive collaboration, brainstorming and engaging with the new knowledge they acquired in the Facebook group. Accordingly, the students are not off track; they appear to practise good discussion. MIB content is always considered 'sensitive' knowledge where the discussion usually touches on race, religious and political issues; teachers are always there to observe, although they did not take part in every discussion, and sometimes to monitor how far that discussion is going. For example, Khairul in his interview highlighted that as an MIB teacher he did not give students the full freedom to speak. As in teaching MIB, there is a need for control and the importance of students to practise good behaviour in a Facebook group. This is to say, Khairul constantly observed his students using Facebook and indirectly gave them a social media etiquette lesson that is to teach students how to be safe, polite, and effective in giving MIB opinions. This could be seen particularly from the Facebook group facilitated by Khairul where he played an important part in creating

a sense of teacher presence in social media settings. The use of establishing netiquette indicators by the teacher helped to design and organize discussion in the social media environment.

From these examples, it is evident that the teacher's role (PK) is significant to overcome the tension to MIB that arises from social media (TCK). Encouraging students to converse in Malay and applying control when teaching in social media shows how teachers use social media appropriately in teaching MIB. These pedagogical activities using social media show the teachers' positive way to guide the students, adopting technology in education which instinctively leads the students to positive learning in the social media environment (TPACK).

7.3.2. TPACK as student framework

Interestingly findings from this study also indicated that TPACK framework which is actually a teacher framework to equip teachers navigate students' learning of a subject matter via technology, is also suitable as a framework for the students. Researchers can use it as a student framework particularly for research on student self-directed learning on specific subjects with social media. In Garrison's framework (2011), this would be an outcome of cognitive presence. Findings from the content analysis in Chapter 5 of Hilmi's group, students demonstrated cognitive presence conversation such as problem recognition (triggering event), exploration and integration. Students build learning resources and then take the lead in 'teaching' and learning with a digital native context. In addition, students create new practices that seem to have managed to take appropriate and effective action to formulate and solve problems without any facilitation by the teacher in the Facebook group. The students 'teach' (PK) the subject matter (CK) to their colleagues who need help and learn from the conversation they acquire from their colleagues. In other words, it allowed students to learn from each other and cultivate new knowledge with the help of technology (TPACK).

This growing autonomy of student presence in which students are observed to demonstrate 'facilitating indicators' is an extension of the observation of Garrison (2011) who maintains that

this is the indicator for teacher presence. For instance, students demonstrate being able to identify areas of agreement and disagreement within a topic among their colleagues. They are also observed seeking to reach understanding and drawing in participants to join in the discussion by prompting. The students in the content analysis of Facebook group also display 'direct instruction indicators' where they are observed summarising the discussion, diagnosing misconceptions, injecting knowledge from diverse sources (e.g. online news, online articles) among their friends. As shown in the content analysis, it is suggested that students can be considered as developing their own TPACK.

7.4. CONCLUSION

It is clear to us that Facebook provides a space for different approaches to learning. Facebook also brings with it pedagogical potentials such as teachers' capacity to monitor and analyse how their students learn. Students are also able to decide the content and as a result they may be more keen to engage.

In the modern world, advancements have been made with respect to social media. As such, it is vital that teachers equip themselves with knowledge regarding social media to increase value in education. As such, the teachers will be able to adapt to challenges that are in line with the ever-evolving technology.

From this issue of flexibility, I understand that teachers have a duty to be available and give considerable attention where possible, but not if it encroaches totally on their time. Another tenet of teaching should be that teachers accept that everything is in a constant state of change. Teachers should invent many new techniques and ideas to help them adapt to the changing atmosphere of teaching and learning with the emergence of new technology. Teachers have to be prepared to be in a constant state of flux. Instead of looking at the flexibility in a negative light, it is important to see the positives in the situation where change is necessary and rather exciting.

Furthermore, in considering the issues of potential challenges and threats to MIB philosophy, I may therefore conclude that supervision and involvement on the part of teachers are significant to ensure that students maintain an appropriate attitude while using Facebook, although findings suggest that students are capable of displaying their facilitative role to each other.

CHAPTER 8: CONTRIBUTIONS AND FUTURE RESEARCH

8.1. STUDY OVERVIEW

This study employed a case study method to explore the integration of social media in an MIB module, during a 6 months period from the perspectives of students and staff.

In the quantitative component, two sets of questionnaires were distributed. The first set of questionnaires was handed out to MIB teachers and 400 undergraduate students during the second week of lecture classes (Tuesday, 7 August 2012) which resulted in feedback from 307 respondents. During the final week of the semester (5 November 2013), the second set of questionnaires was circulated amongst 400 students and succeeded in gathering 362 samples of feedback from the students.

In the qualitative component, ten MIB Facebook groups were evaluated to investigate teachers' teaching and students' learning experiences using Facebook in that semester. In addition, 5 staff members were interviewed in the first interview to discuss their social media perception and another 4 staff members interviewed in the second phase of interviews in order to gain full insight into different facets of the use of social media in teaching and learning MIB in higher education.

The findings of the study indicate that Facebook is a virtual social space where users are able to share information, create content, upload photos and video, send messages, communally interact and keep in touch with friends, family and colleagues. Social media is seen to be able to solve the pedagogical problems in the MIB course. Even though Facebook was designed to have unique features that make it have a potential to teach and enhance learning even though it was not designed for educational purposes

However, at the same time it has cultural obstacles in the path of its recognition by teachers in this specific situation. Findings suggest that the implementation of social media such as

Facebook in order to solve a pedagogical problem have raised tensions in this specific cultural environment. The study also demonstrates that the MIB teachers have mixed feelings about the fact that social media could complement MIB education

As a way of conceiving the tensions between these issues, the TPACK framework was proposed in order to guide and examine the nature of technology knowledge (Facebook), content knowledge (MIB) and pedagogical knowledge (teacher methods/practices) and challenges associated within the implementation of social media in MIB education. The study shows that TPACK was impacting on the environment not just through the practices of teachers, but also students, who were developing their own forms of TPACK.

8.2. CONTRIBUTION OF THE STUDY

This section discusses the main contribution of this research: theoretical, methodological and professional. It further identifies new research potential and addresses some implications.

8.2.1. Theoretical Contribution

The findings of the study have contributed to an enriched theoretical understanding of the framework of TPACK. This study modified the TPACK framework as it is different from other studies in its application as a guiding theory, as there is tension between Content Knowledge and Technology Knowledge. The nature of this study prohibits TK and CK to be one unifying knowledge known as TCK. The inharmoniousness of technology knowledge and content knowledge in which it has to depend on PK to act as a bridge to form TPACK resulted in providing a new contribution of TPACK knowledge to this study context. Findings also suggest that TPACK was also seen in the students. Thus, the social medium has brought benefits for the development of TPACK as a whole. Both teachers and students in the MIB course were not just developing TPACK *about* Facebook, but *through* using it.

This research also modified the social presence template from CoI Framework (Garrison, 2011), that been developed from previous studies for the analysis of social presence in the Facebook group. The original template that was presented, with a strong prospective to critically evaluate social components in online learning, nevertheless displayed certain facets which made it inappropriate. An example of this was concerned with the applicability of social presence indicators which was deemed incomplete as this research relates to social media learning which has different features. Some indicators which were unsuitable for measuring social media social presence were altered. For instance, indicator such as 'continuing thread' in the original template (Garrison, 2011) could not represent the level of interactivity among participants in Facebook conversation. Thus, it was modified to 'writing a comment' to coordinate with Facebook context. Therefore, it contributed to social presence elements from CoI Framework.

8.2.2. Methodological Contribution

It may well be that there is no particularly original methodological contribution made in this study. Still, this study can be as an additional methodological contribution to the existing literature. This thesis adopts a mixed methods research approach that explores the potential of social media and particularly into the teacher use of Facebook in the MIB module. As has been noted in chapter three, mixed methods research, as a methodology, has attracted increasing numbers of researchers in various fields of social and behavioural sciences since the 1960s. This thesis contributes to the methodological development in educational research in terms of providing measures in implementing multi research methods and design including multiple data collection and data analysis activities. However, in spite of the widespread application of mixed methods research in social science, there is a crisis or challenges that quantitative and qualitative data and findings seem not to be considerably integrated (Collins *et al.,* 2007, p.269). This thesis makes a contribution in this regard. It provides an example of how the quantitative and qualitative data can be integrated at all stages of the case study in order to achieve maximum integration in a concurrent mixed method research.

At the initial phase of designing the study, the rationales of using mix-method research were explained clearly (*see section 3.2.3 of chapter three*), and the central research question was divided into three specific questions to be answered by not only singular methods but also the integration of multiple approaches. For the period of the data collection process, the quantitative first questionnaire assisted as a baseline study to help design pedagogical intervention in phase 2 of data collection (Set up of Facebook). The Facebook groups assisted to show evidence of teachers facilitating students' engagement. The second questionnaire quantitative study and first interview qualitative study explore students' and teachers' perceptions that were useful to formulate second interview questions and design the interview guide. In addition, findings from observation and content analysis of the MIB Facebook group also helped to design the second interview questions. At the stage of analysing Facebook data, questionnaires and interviews findings helped the researcher to link the findings in order to develop suggestions and interpretations.

Finally, at the stage of reporting the case study results, findings from the quantitative and qualitative approaches were connected and compared. On the one hand, it accomplishes evidence of triangulation and improves the validity of the overall study. On the other hand, it overcomes some limitations of using singular methods, and acquires the advantage of complementarity.

8.2.3. Professional Contribution

There have been very limited academic studies of social media conducted previously in Brunei Darussalam. The only study regarding social media that I can find is a thesis entitled *'Role of social media in local government'* by Haji Mohamad Nor (2012). Research on MIB in higher education by means of adapting social media is the first local study that has been carried out. Therefore, this study could add to professional contribution in supporting teachers, particularly for higher education teachers, in regard to teachers' perception, potential use and challenges of social media learning

Clearly, the main strength of the current study is that it provides findings from well-designed implemented research on teachers' knowledge of social media use and perceptions towards this usage as well as their views on implementing social media in education which can be used to inform present and future educational policy. The study has also yielded up-to-date information on teachers' perceptions of the use of social media outside lecture and tutorial class as well as identifying pedagogical solutions and problems in the MIB module and acknowledges cultural obstacles in the path of its acceptance which all add to the limited literature on social media use in a Bruneian higher education institution.

8.3. POTENTIAL FOR FUTURE RESEARCH

The following defines the limits of this study and suggest new areas for research.

1. The study was limited to the University of Brunei Darussalam MIB module teachers and undergraduate students. This was to address the constraints of time and resources available for the study. It was considered essential to select only the University of Brunei Darussalam instead of drawing a sample from other universities. It is because that such a strategy would have necessitated a lot more travel and involved greater cost in terms of time and money, which are not available for small studies such as this one. If there had been time and resources available to extend the study to other higher institutions in Brunei, it would have been possible to obtain in-depth information to augment and compare the current results. Moreover, it could ascertain whether the study's results were applicable to all the higher education institutions or were specific to those working at the university in the study. There is clearly scope for continuing research in this area.

2. Another limitation of the research probably lay in the scope of data collection. In this research, content analysis was unable to capture MIB teachers' and students' other social media conversations since the Facebook group transcripts were the only source of data available to the researcher. Social interaction among the participants

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that took place outside the Facebook group (e.g. WhatsApp, private messages) was beyond the scope of this research and not included in the analysis. Although the study yielded a number of significant insights, it has been able to provide just a part of the whole picture of social presence, cognitive presence and teacher presence usage in social media. It would be interesting to undertake research on multiple social media to explore a broader insight of engagement.

3. Since the purpose of the content analysis study was to show evidence of teacher facilitation and students' engagement in the Facebook setting in the context of the MIB course, therefore, three interdependent elements - social presence, cognitive presence and teaching presence are employed. However, in this study, it is not possible to explore an in depth description of each element. Replicating the study however, focussing on only one element of the Community of Inquiry Framework will offer wider understanding.

4. In this study, the data findings are translated from Malay to English. This bilingual nature of the language involved could have delivered a wide range of opportunities such as drawing on literature in both English and Malay. Nevertheless, it also has challenges such as handling the modifications of translation. There are time where certain words do not exist in any other language. The untranslatable words with respect to religion, history and humour are just some of the issues that lead to the difficulties of conducting research bilingually. For that reason, an area that merits additional research is of major significance considering the growing numbers of international researchers carrying out research in institutions of higher education worldwide.

5. The modification of the TPACK framework as well as the social presence template from the Community of Inquiry Framework in this study in order to coordinate the nature of this study definitely requires other research studies to further develop the TPACK Framework by Koehler and Mishra (2009) and enhance the replicability of the tool by Garrison (2011). The new study could complement literature of TPACK

Framework to enrich existing knowledge particularly in terms of the inharmoniousness of technology knowledge and content knowledge.

It is hoped that this study will encourage other researchers to conduct follow-up research in the field of social media in MIB education. Teacher social media usage particularly in MIB education is still in its early stages of implementation and further research should therefore be encouraged and welcomed.

8.4. IMPLICATIONS AND RECOMMENDATIONS

In view of the findings derived from this study and the conclusions arising from them, the following recommendations for policy and practice are presented. They are mainly related to strategies that can be implemented by teachers and policy makers to ensure the success of social media usage in MIB education in higher institution.

1. The study identified that traditional methods of lecture is one of the issues that cause students' lack of engagement. MIB is delivered in a traditional subject-centred way where teachers put too much emphasis on the giving of information and ignore the needs of involvement between students. The implementation of social media to some extent overcomes this issue. However, challenges to adopt and fully implement social media in education are hindered by problems faced by students and teachers. For example, the need of a stable and high quality internet access. In addition, the issue of students' provision of functioning technology, apart from the internet connection limitations also needs addressing. Otherwise, it will have massive differentiation between those who can participate fully and those who do not have the means. The issue of the promoting harmful and false information through social media is also mentioned as the challenges of this study. Hence, the policy maker should provide higher education institutions with accessible high-speed connection and facilities for students as well as the availability of reliable maintenance and technical support. Governments should also arrange sensible limitations for this damaging information

from coming in, in order to avoid conflict of information particularly in regards to MIB that perchance may cause disturbance of Bruneian society well-being.

2. This study also indicates that some older students and even teachers are not familiar with social media. Hence, the policy maker should ensure that teachers and students receive adequate training as it is the new emerging technology that is not only useful in their teaching and learning but for other use such as delivery of information. Referring to adequate training mentioned above, it should at least present basic proficiency of social media for example, creating a Facebook 'page' in order for them to have the ability of connecting, sharing, learning and promoting engagement. Correspondingly other preparation methods should be held for integrating social media in teaching and learning for teachers and students who are implementing it in their educational setting. The process is essential towards preparing teachers with mobile safety and guidelines for social media. With regards to the tension mentioned in this research, teachers should acknowledge that by creating a Facebook "page", not only will it allow all people to benefit from Facebook sharing, but it will also enable life engagement for new generations of students in a much more dynamic way. However, caution should be taken when using social media because it also permits negative personal interaction. It can also encourage unhealthy discussions, especially those revolving around personal as well as political or religious discussion which might be a threat social interaction. However, teachers should also recognise that so much of the conversation that condemns social media as only a dangerous, disruptive force is often the result of ignorance about its full potential, especially in relation to enhancing, learning experience through information sharing. Effective learning experience using Facebook requires teachers to be acquainted with adequate knowledge regarding the use of technology. For instance, they should know how to use the multiple Facebook features to regulate their forums with students. Thus, there is a need for a digital literacy program for teachers and students to help them use technology effectively and how to maintain privacy settings for both professional and

personal accounts. Ideally, refresher courses would be offered during the semester break.

3. A specifically designed social media space that meet the needs of all parties should be considered by taking into account its suitability in education and appropriateness for the Brunei culture and identity. For example, the social media application should be in standard Malay language and have restrictions to prevent negative information that is opposed to Malay Islamic Monarchy thought and principles to spam the space. It is also recommended that social media developers take into consideration the features of the social media space affordances in order to encourage students to apply their thinking skills based on query, analysis, and synthesis of new information. For instance, the convenience in sharing documents, sharing links, adding comments, notification for new postings etc. Such social media space should also take into account the issues of privacy among students in order to encourage more participation.

4. The policy maker should raise awareness of its educational policy towards the use of social media by distributing an Educational Policy Document to higher institutions and asking teachers to work towards fulfilling its aims and objectives and report any difficulties with recommendations for resolving the issues. The pros and cons of the different media (particularly Facebook vs WhatsApp) need to be examined further to agree on a standardised use, whereby a coherent learning environment is set out. Furthermore, the issue of invasion of privacy needs guidelines and rules.

8.5. SUMMARY

Research studies often generate issues that are of further interest to researchers. As a result of the present study, future studies can build on its results to enrich existing knowledge in the area of MIB education with social media. It is clear that the use of social media in education is developing rapidly and that is the reason for the research approach to this development to be expanded.

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APPENDICES

10.1. Appendix 1 (Survey Questionnaire 1)

MANCHESTER
1824

The University
of Manchester

Survey Questionnaire

Social Media Questionnaire

The purpose of the survey questions is to study and understand whether or not each student and member of staff has a social media account and, if so, what types of social media spaces they have and how much and for what purposes they are currently using them. The results will demonstrate which social media tools are widely and preferably used among the students and staff, and identify in what ways they are used.

This survey should take approximately 5-10 minutes to complete. Your responses will remain confidential and will not be traceable to you. No personally identifiable data will be collected. Your participation in this study is completely voluntary and you may change your mind at any point. The results of the data may be published; however, no names or identifying information will be included in the final document.

May I thank you, in advance, for your valuable co-operation.

D H Siti Norainna P H Besar
PhD Student,
School of Education
Ellen Wilkinson Building, The University of Manchester
Oxford Road, Manchester, UK
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Email: dayangkuhajahsitinorainna.pengiranhajibesar@postgrad.manchester.ac.uk

Demographic Information

1. Your gender:
   Male
   Female

2. Which category below includes your age?
   17 or younger
   18-20
   21-29
   30-39
   40-49
   50-59
   60 or older

3. Academic Faculty:
   Academy of Brunei Studies
   Faculty of Arts and Social Sciences
   Faculty of Science
   Faculty of Business, Economics and Policy Studies
   Sultan Hassanal Bolkiah Institute of Education

PAPRSB Institute of Health Sciences
Other:

4. You are...
   An undergraduate student
   A postgraduate student
   A recent graduate
   Tutor/Lecturer
   Other _____

Social Media Activities

5. Have you joined any social media services?
   Yes
   No

6. If you have NOT joined any of social media websites, what is the main reason? (then go to Q.11)
   I don't have time
   I have no interest
   I don't have internet access
   I use the internet only for the purpose of finding information, not socializing
   Other (please specify) _____

7. If Yes, which of these social media accounts do you have ?
   Facebook
   Twitter
   LinkedIn
   Google+
   Hi5
   Last.FM
   Youtube
   Flikr
   Wikipedia
   Wikia
   Delicious
   Blinklist
   Simpy
   Digg
   Propeller
   Reddit
   Others _____

8. How often do you usually log on to your favourite service(s)?
   I'm constantly logged on
   Several times a day
   Once every few days
   Once a week
   Occasionally (less than once a week)

9. How much time (on average) do you spend on your favourite social media site(s) per session?
   Less than 5 minutes
   5-10 minutes
   11-30 minutes
   30+ minutes

10. What elements of social media do you like most? (Please notate your preference in rank order from 1 – 8)

Keeping in touch with friends and family
Meeting new people
Making professional and business contacts
Sharing, photos, videos, and music
Playing games
Discovering new music, books, films, and other entertainment
Finding information and share feedback
Sharing information with colleagues about events

11. What do you think of the proposal that extra-large classes such as PB1501 Melayu Islam Beraja should have complementary social media spaces to help complement the MIB teaching and learning? Do you have any expectations if social media are implemented? Do you think there are drawbacks or challenges in acceptance of social media in education, particularly in MIB education?

_____
_____
_____
_____
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_____
_____
_____
_____

12. Email Address for contact purposes (optional):

_____

10.2.   Appendix 2 (Survey Questionnaire 2)

MANCHESTER
1824

Survey Questionnaire

Engaging Social Media and MIB in Higher Education Questionnaire

The purpose of this study is to study and understand the perception and attitudes towards engaging social media in MIB education in higher education. This survey should take approximately 5-10 minutes to complete. Your responses will remain confidential and will not be traceable to you. No personally identifiable data will be collected. Your participation in this study is completely voluntary. The results of the data may be published; however, no names or identifying information will be included in the final document.

May I thank you, in advance, for your valuable co-operation.

D H Siti Norainna P H Besar
PhD Student,
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Ellen Wilkinson Building, The University of Manchester
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Email: dayangkuhajahsitinorainna.pengiranhajibesar@postgrad.manchester.ac.uk

Personal Information

1. You are...
   - ☐ PB 1501 (MIB) module student
   - ☐ Facilitator/Tutor/Lecturer
   - ☐ Other (*please specify*) _____

2. Are you using Facebook in this module?
   - ☐ Yes
   - ☐ No

PB 1501 (MIB) Module Facebook Group Activities

3. What did you do with your MIB Facebook group? (*you can choose more than one answer*)
   - ☐ Posting status update
   - ☐ Checking friend's status update
   - ☐ Reading friend's comment
   - ☐ Posting comment
   - ☐ Clicking Like/Unlike Button
   - ☐ Following friend's post
   - ☐ Uploading video to a video-sharing site (*such as You tube*) and share on MIB Facebook group
   - ☐ Uploading file documents (*such as essay, slides, etc*)
   - ☐ Creating a poll for friends online (*such as meeting/discussion dates*)
   - ☐ Turning to an online chat/discussion group when needing help with something

☐   Other (*please specify*) _____

☐   N/A

4. What was the biggest use you make of Facebook in PB 1501 (MIB) module teaching and learning? Please tick (√) your preference in rank order from 1 – 8

	(1 = being the most useful and 8 = being the least useful)									
		1	2	3	4	5	6	7	8	N/A
a)	**Contacting facilitator/tutor/lecturer**									
b)	**Talking to facilitator/tutor/lecturer**									
c)	**Contacting colleagues**									
d)	**Talking to colleagues**									
e)	**Question and Answer with facilitator/tutor/lecturer**									
f)	**Question and Answer with colleagues**									
g)	**Share resources and information**									
h)	**Finding information and get feedback**									

Perception on PB 1501 (MIB) Module Facebook Group

5. Please tick (√) from 1 to 5 to show how much you agree with the following statements:
1 Strongly Agree 2 Agree 3 Neutral 4 Disagree 5 Strongly Disagree 6 Not Applicable

		1 Strongly Agree	2 Agree	3 Neutral	4 Disagree	5 Strongly Disagree	6 N/A
a)	**I find that Facebook can make a positive contribution to upholding Brunei National Philosophy – MIB**						
b)	**I think that working with a Facebook means that I can work when and where I want.**						
c)	**I can go over the material as many times as I want using Facebook.**						
d)	**I can make more effective use of my time when I am learning using Facebook**						
e)	**I like the way the responsibility for my learning is on me...I am more in control using Facebook.**						
f)	**I enjoy the flexibility of Facebook because it allows me to go at my own pace**						
g)	**I think facilitators/lecturers are more contactable using the Facebook**						
h)	**I think it is unfair to use Facebook in education… considering student who have no internet access.**						
i)	**I seem to spend lots of time just trying to connect to the internet...then feel pressured because of the internet speed**						
j)	**I think I can discuss my ideas, give my opinion, share my findings with the Facebook community**						
k)	**I think Facebook change the way student and lecturers communicate**						

	1 Strongly Agree	2 Agree	3 Neutral	4 Disagree	5 Strongly Disagree	6 N/A
l) **I see that Facebook can enhance civic involvement and strengthen community ties**						
m) **I think that Facebook can weaken MIB values and beliefs**						
n) **I think Facebook offers useful educational materials**						
o) **I think that Facebook can be used effectively in an educational setting**						
p) **I find that learning with Facebook does not offer deep learning**						
q) **I think Facebook helps me to remind due dates for assignments and dates for exams**						
r) **I can find lecture topics and speakers hand outs in Facebook**						
s) **I received support from academic and members of the Facebook community in response to my requests for help and encouragement**						
t) **I can find Book/Bibliography/References in Facebook**						

Additional comments (*please specify*):

_____
_____

6. What do you think are the positive and negative cultural impact of Facebook on Brunei National Philosophy - MIB?

_____

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7. Facebook Profile Name *(optional):*
    _____

10.3.   Appendix 3 (First Semi-structured interview schedule)

1. Preamble:
   Interviewer Introduction
   Overview of the research topic
   Permission to record
   Signing of consent form

2. Social Media Challenges:
   What do you have to say regarding challenges in integrating social media in higher education?
   Prompts (if necessary):
   What are the risks in implementing social media in education?
   How will it be best to harness social media for use in MIB education?
   What are the educational and cultural challenges?
   Do you believe social media can help transform MIB module?
   What are the most effective ways to use social media in higher education?
   To what extent do you believe social media are effective or ineffective?
   What are your predictions for social media in MIB education of the future?

10.4. Appendix 4 (Second Semi-structured interview schedule)

INTERVIEW QUESTION (Khairul)

1. Why do you think participation and engagement became less frequent for Group 6 and Group 8 at the end of the module? Why also did Groups 7 and 9's participation rate become higher from September to October?
2. Why do you think Group 9's participation is comparably very high?
3. Can you tell me if you are giving marks to students who contribute in the Facebook group?
4. The quantitative data show your participation and engagement was high in the first two months of each group and gradually declined at the end of module except for Group 9. Group 9's chart shows contribution being continued from August until November. You still posted some comments and continued to assist the students. Why is that?
5. Can you talk to me how you use social presence (for example; use of humour, self-disclosure) and teaching presence (such as inject knowledge from different article and internet sources to provide students with knowledge related to the content). Do you think these social presence indicators are important to encourage students' participation?
6. Following your experience what are the challenges using Facebook as an additional learning experience along with lecture and tutorial classes? (For example you mention, "I understand in the early stage everyone is cautious", what are you thinking here?)

INTERVIEW QUESTION (Ariffin)

1. Details of female and male students
2. Why do you think participation and engagement was high in August, started dropping on September and declined steadily around November?
3. Can you tell me if you are giving marks to students who contribute in the Facebook group?
4. Can you talk to me how you use social presence (for example; use of salutation) and teaching presence (such as direct instruction on specific content issues for example diagnosing misconceptions and explanatory feedback as well as module design and organization, for instance examination date reminder, group members, announcement of weekly presenters, welcome messages). Do you think these social presence indicators are important to encourage students' participation?

INTERVIEW QUESTION (Hilmi)

1. Details of female and male students
2. Why do you think participation and engagement was high in August, started dropping on September and declined steadily around November?
3. Can you tell me if you are giving marks to students who contribute in the Facebook group?
4. Can you talk to me about your teaching presence in this group? (Data suggest that you have one post and two comments). Are you using other social media to facilitate students learning?

5. Despite your small contribution in the Facebook group, Group 10 participation and engagement among the students can be considered active if compare to other groups. Do you think students' can contribute without tutor assistance?
6. The group member consist of 11 people, however, individual data analysis shows that one student did not contribute in Facebook group. Can you tell me why that is?

INTERVIEW QUESTION (Liza)

1. Details of female and male students
2. Based on the individual analysis of each member, it shows that 14 members show their contribution in the Facebook group while 5 others were not participating, can you tell me why this happen?
3. Why do you think participation and engagement was high in August and started dropping on September then turns out to be a bit higher in October and declined steadily around November?
4. Can you tell me if you are giving marks to students who contribute in the Facebook group?
5. Can you talk to me how you use social presence (for example; use of humour) and teaching presence (such as examination date reminder, group members, announcement of weekly presenters, weekly topic messages and so forth). Do you think these social presence indicators are important to encourage students' participation?

10.5.   Appendix 5 (Interview Consent Form)

MANCHESTER
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INTERVIEW CONSENT FORM

Full title of Project:
Engaging Higher Education Students with Social Media: MIB Module Case Study

Name, position and contact address of Researcher:
D H Siti Norainna P H Besar
PhD Student,
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Telephone Number: +44 7851889373

Please initial box

1.   I confirm that I have read and understand the information sheet for the above study and have had the opportunity to ask questions.

2.   I understand that my participation is voluntary and that I am free to withdraw at any time, without giving reason.

3.   I agree to take part in the above study.

Please tick box
Yes   No

4.   I agree to the interview being audio recorded

5.   I agree to the use of anonymised quotes in publications

6.   I agree that my data gathered in this study may be stored (after it has been anonymised) in a specialist data centre and may be used for future research.

_____   _____   _____
Name of Participant   Date   Signature

_____   _____   _____
Name of Researcher   Date   Signature

10.6.   Appendix 6 (Content Analysis Recording Sheet)

1. MIB Facebook Group Activities

Activities	Total Number
Postings	
Comments	
Clicking Likes	
Sharing Photos/Videos	
Uploading Files	

2. Social Presence Recording Sheet

Category	Indicators	No of Coding
Interpersonal Communication	Affective Expression	
	Self-Disclosure	
	Use of humour	
Open Communication	Writing a comment	
	Quoting from others' messages	
	Referring explicitly to others' messages	
	Asking questions	
	Complimenting, expressing appreciation	
	Expressing agreement	
Cohesive Communication	Vocatives	
	Addresses or refer to the group using inclusive pronouns	
	Phatics, salutations	

3. Cognitive Presence Recording Sheet

Phase	Descriptor	Indicators	No of Coding
Triggering Event	Evocative (Inductive)	Recognize Problem Puzzlement	
Exploration	Inquisitive (Divergent)	Divergence Information Exchange Suggestions Brainstorming Intuitive Leaps	
Integration	Tentative (Covergent)	Convergence Synthesis Solutions	
Resolution	Commited (Deductive)	Apply Test Defend	

4. Teaching Presence Recording Sheet

Instructional Design and Organization Indicators	No of Coding
Setting curriculum	
Designing Methods	
Establishing time parameters	
Utilizing medium effectively	
Establishing netiquette	
Making macro-level comments about course content	

Facilitating Discourse Indicators	No of Coding
Identifying areas of agreement/disagreement	
Seeking to reach consensus/understanding	
Encouraging, acknowledging, or reinforcing student contributions	
Setting climate for learning	
Drawing in participants, prompting discussion	
Assess the efficacy of the process	

Direct Instruction Indicators	No of Coding
Present content/questions	
Focus the discussion on specific issues	
Summarize the discussion	
Confirm understanding through assessment and explanatory feedback	
Diagnose Misconceptions	
Inject knowledge from diverse sources, e.g. textbook, articles, Internet, personal experiences (includes pointers to resources)	
Responding to technical concerns	