The Integration of New Media in Schools: Comparing Policy with Practice

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Abstract

Beyond policy, this paper investigates the actual practice related to the integration of new media in schools. Despite continuous government effort to integrate new media in schools, the use of digital technologies for teaching and learning in the classroom remains limited. This study suggests that, apart from the issue related to the state of technological infrastructure, other related factors, including school's leadership and policy, and teachers' attitude and knowledge of new media, can also influence the integration of digital technologies into the classroom. Hence, it is important for schools to develop a comprehensive policy of new media, to ensure that the technological infrastructure is carefully managed and maintained. Schools also should provide teachers with continuous professional development opportunities, to ensure that their knowledge and skills of new media remain relevant in the constantly changing digital environment.

Keywords: new media, teaching and learning, educational policy

1. Introduction

Governments and policy makers around the world strive to integrate new media into the classroom, as digital technologies are believed to positively contribute to better teaching and learning practices (Koc, 2005; Robertson, Fluck, Webb, & Loechel, 2004; Wang, 2008). As Yelland (2007) explained, "governments around the world seem to recognise that it is politically viable to support the growth and use of new technologies in educational context" (p. 4). This shows that governments and policy makers acknowledge the importance of digital technologies for educational purposes. In Australia, for instance, the federal government realises the important role of new media in engaging young people, and to improve their learning (DEEWR, 2010). While in Malaysia, the use of digital media for educational purposes is regarded as a move to prepare, and enhance the younger generations in the era of globalisation (MSC, 2010b).

However, despite continuous efforts to integrate digital technologies into the classroom, young people's use of new media during school in general remains limited (Collins & Halverson, 2009; Somekh, 2004). This is due to a number of factors, including the lack of infrastructure and technical support, insufficient funding to acquire digital resources and inadequate opportunity for teachers to continuously learn and develop their technological knowledge (Elgali & Kalman, 2010; McGarr & Kearney, 2009). In addition, there are also teachers who refuse to incorporate new media technologies in their classrooms. They prefer to continue using the 'chalk and talk' strategy (Ng, 2008; Underwood, 2009). Thus, beyond policy, these are some of the major issues that need to be taken into consideration when dealing with the integration of new media technologies in schools.

By drawing upon the policy related to the new media integration in Malaysian schools, the researcher investigated the actual practice related to the use of digital technologies for teaching and learning. This provides a better understanding of how the new media initiatives are being carried out in Malaysian schools, and more importantly, highlights the arising issues in the existing practice. It is important to let the policy makers, administrators and other stakeholders informed of the present state of the implementation of the new media policy, in order for them to be able to identify weaknesses, and make necessary adjustment to improve the practice.

This study investigated the integration of new media in schools in Malaysia for three reasons. First, like many other countries across the globe, Malaysia is very committed to integrate new media technologies into teaching

and learning (MOE, 2007b, 2012a; MSC, 2010a, 2010b; Yunus, 2001). Second, earlier studies have found that, despite continuous efforts to integrate new media into teaching and learning, the percentage of Malaysian students utilising digital technologies during school remains relatively low (Jaafar, 2008; Zain, Atan, & Idrus, 2004). Third, there is a gap in the knowledge pertaining to the new media integration policy and practice. Earlier studies conducted in Malaysia were mainly concentrated on topics and issues such as the Malaysian Smart Schools initiative (Abdullah, 2006; MSC, 2010a), Smart Schools learning courseware (Halim, Zain, Luan, & Atan, 2005) and teacher training and professional development (Shaharuddin & Abiddin, 2009). Hence, this study is expected to fill in the gap and contribute further to the body of knowledge.

Based on the earlier studies that were conducted in the area, the next section discusses further some important issues and considerations pertaining to the integration of new media for teaching and learning in schools.

1.1 Critical Review of the Integration of New Media Technologies in Schools

Putting aside unlimited potential of new media for students' learning, its integration into the classroom is not as straightforward as it seems, and in some instances, may result in failures (Elgali & Kalman, 2010). Besides inadequate technological resources that continue to hamper the integration of new media in schools (Aduwa-Ogiegbaen & Iyamu, 2011), teachers often find it difficult to improve their quality of teaching and learning with the use of digital technologies (Ainley, Banks, & Fleming, 2002). One way to overcome this challenge is by transforming the pedagogical practices, from the traditional way of 'knowledge instruction' to 'knowledge construction' (Ainley et al., 2002; Zain et al., 2004). Such reform can take place by adopting a pedagogical content that suits the technologically rich learning environment. This is explained by Yelland, Cope and Kalantzis (2008), who proposed that, a systematically designed pedagogical content that is based on the 'learning by design' framework, should be adopted in the digital rich classroom setting, where new media is used for teaching and learning. According to Yelland et al. (2008), the learning by design framework is sensitive to cultures, learners, knowledge domains and pedagogies. Thus, its outcomes may vary, depending on the context in which it is being used (Yelland et al., 2008).

In their response to the pedagogical design that should be adopted within the technologically rich educational setting, Collins and Halverson (2010) argued that, it needs to consider students' technological practices, including their everyday use of computers, the internet, social media, mobile technologies and video games. According to Collins and Halverson (2010), the main issue faced by schools is the difficulty to operationalise learning with digital technologies. This is due to the incompatibility between the rigidity of schooling, and the liberated nature of new media. In this regard, it is necessary for schools, to better understand the role of new media in young people's lives, and to perform necessary adjustments to their existing pedagogical practices, in order to ensure that students can benefit from the use of digital technologies in teaching and learning (Collins & Halverson, 2010; Underwood, 2009).

Learning that is adaptable, flexible and dynamic with the use of digital technologies is impossible to achieve within the rigid educational setting (Groundwater-Smith, 2007). This however, can be overcome if schools overhaul their present practices, and provide students with better opportunity to explore their own learning with new media (Somekh, 2004). According to Somekh (2004), it is important for schools to change, and grant young learners with enough flexibility, in order for them to be able to take control of the pace of their own learning with digital media. However, the overhaul to the existing practices as proposed by Somekh (2004), Underwood (2009), Collins and Halverson (2010) and other scholars who champion liberated use of new media in schools, is difficult to achieve due to students' and teachers' differing beliefs of how classroom teaching and learning should be (Ng, 2008). For instance, a case study conducted in a school in the state of Victoria, Australia reported that, there was a mismatch between Year 7 students and their teacher in term of perceptions, and thinking related to the use of new media in learning (Ng, 2008). According to Ng (2008), while students in general appreciate the opportunity for self-directed learning using computers and the internet, their teacher does not think that the strategy is ideal. The teacher who participated in the study argued that, students in general are incapable of choosing the right learning resources on the internet, and as a result, they fail to achieve the expected learning outcomes (Ng, 2008).

In their response to the issue related to students' and teachers' contrasting beliefs of the use of digital technologies for classroom teaching and learning, Selwyn, Boraschi, and Ozkula (2009) proposed that, schools should engage students and teachers in frequent and continuous dialogues. The rationale for such dialogues is explained by Selwyn et al. (2009) as follows:

Thus we would suggest that rather than either rejecting or acceding to pupil demands to 'let us do what we want', schools and educationalists instead concentrate on fostering informed dialogues with-and between-young people

about the perceived potential educational benefits of ICT (p. 925).

Instead of providing them with the opportunity to use new media without proper guidance during school, it is necessary for students to be continuously informed and guided of the potentials of digital media, and how technologies such as computers and the internet can be utilised for learning (Ng, 2008; Selwyn et al., 2009).

Based on the existing new media policy and initiative carried out in schools, the researcher aims to unravel further the actual practice, issues and complexities related to the integration of new media technologies in schools. For this purpose, the study attempted the following research questions:

(1) What are the new media practices that students engage into during school?

(2) What are the factors that influence the integration of new media in school?

2. Method

This study used the qualitative method of case study. It was employed with the aim to explore, and understand the actual practice pertaining to the integration of new media in schools in Malaysia. As Yin (2003) and Creswell (2008) explained, a case study permits researchers to carry out investigation within the real-life context, holistically explore the case, and thoroughly understand the phenomenon. Even though there are critics who claim that case study is sloppy, biased, and difficult to generalise and replicated to other samples and populations (Wimmer & Dominick, 2000; Yin, 1989), it is important to note that, a properly conducted case study opens the possibility for new knowledge, as well as deeper understanding of the particular area of research (Berg, 1998; Wimmer & Dominick, 2000). In their response pertaining to the issue of generalisability, Henderson (2007) and Burns (1997) argue that, a case study should not be treated like a quantitative research, particularly in the way how the study is generalised and replicated. As a case study involves a subjective process, thus, the worth of the study should be determined by the readers who may decide how it suits to their own contexts and situations (Henderson, 2007).

In this study, the researcher used (a) semi-structured interviews, (b) direct observations, and (c) archival records as the methods of data collections. This enabled the triangulation of data to be performed. Not only that triangulation of data is useful because it can lead the researcher to derive to the same phenomenon (Yin, 2003), but the strategy can also help to increase validity of the study and enrich understanding of the area of research (Flick, 2004; Silverman, 2010; Silverman & Marvasti, 2008). It was through semi-structured interviews that data pertaining to the participants' technological practices during school, their experience and opinions was gathered. The interviews were conducted face to face with all the participants during school hours, and each interview session lasted for a maximum duration of 30 minutes. Direct observation was another data collection technique used in this study. According to Yin (2003), observation is a useful method that can provide researchers with useful additional insights about the study. In this study, the student participants were observed twice over a two week period, and each observation lasted for one hour. Using the minute-by-minute observational protocol, the researcher closely observed and recorded students' technological practices during the ICT Literacy (ICTL) class session. This includes their use of computers and the internet to accomplish tasks assigned to them by their teacher. Evidence gathered through observations helped the researcher to further understand how new media technologies are being used in the classroom. The third method of data collection was archival records, which refer to any written document, map, audio and video recording and internet material that is used as a research evidence (Stan, 2010). In this study, archival records specifically refer to written documents and the internet materials that are directly related to the integration of new media technologies in Malaysia. The researcher used these records as guidelines, to analyse how the actual integration of digital technologies for teaching and learning is being implemented in schools.

The data collection process took place in two secondary schools, namely School A and School B. Both schools differ in term of their types and the expected level of the integration of new media for teaching and learning. School A is a two-session national secondary school, while School B is a single session secondary school that is recognised for its excellence in ICT. By conducting a case study involving students and teachers from the two schools, the researcher was able to develop a more in-depth understanding of the integration of new media technologies in schools. This includes the technological practices that students and teachers engage into during school, and the arising issues that they experience from their use of technologies like computers and the internet for teaching and learning.

The purposive sampling method was employed to enable the researcher to select participants according to the specific criteria of this study (Silverman, 2010; Silverman & Marvasti, 2008). Based on the purposive sampling method, six 13-year-old Form 1 students, and six teachers from two secondary schools in Malaysia were selected

to participate in this study (see Table 1).

It was assumed that, at the age of 13, students are expected to have a certain level of experience using new media for learning, as well as for other purposes in and out of school. Such assumption was made based on the earlier study conducted by Eow, Wan-Ali, Mahmud, and Baki (2009), in which, it was highlighted that at thirteen, children already have some knowledge and experience of digital media. In another study, it was also reported that, the number of children using new technologies increases with their age, and eventually reaches its ceiling when they are 10-11 years of age (McQuillan & d'Haenens, 2009). These findings helped the researcher to decide on the age group of the student participants. As for the participating teachers, they comprised of a senior school supervisor, two ICT specialised teachers, and three other teachers who are teaching the Form 1 students.

Table 1. Students and teachers participating in the study

	Research Participants	
No.	Student Participants	Teacher Participants
1.	Amanda	Mr. Kwok
2.	Elisha	Miss Maryam
3.	Donald	Miss Jane
4.	Ali	Miss Pamela
5.	Suresh	Miss Ashley
6.	Vincent	Miss Ruby

3. Findings

As the researcher attempted to answer the research questions pertaining to students' practices of new media during school, and the factors influencing the integration of new media in schools, four important themes emerged: (a) Students' usage of new media during school, (b) the state of school's technological infrastructure, (c) school's leadership and policy and (d) teachers' attitude and knowledge of new media. These themes are discussed in the subsequent sections, based on the research data collected.

3.1 Students' Usage of New Media during School

It was initially assumed that, every secondary school in Malaysia, regardless of their status, should have at least adequate access of new media for students and teachers to use. This assumption was made based on the National Education Plan 2006-2010, in which, it was stated that, all schools in Malaysia were to be equipped with sufficient technological infrastructure, to ensure a more frequent use of new media for teaching and learning. It was also stated in *The Smart School Roadmap 2005-2020: An Educational Odyssey* that, in the Wave 3 of the Smart Schools initiative (2005-2010), every school in the country was expected to be digitally transformed, and acquire the 'Smart' status by 2010 (MSC, 2005). However, the assumption proved to be wrong, as the researcher found that School A is technologically deprived. The school only have two computer labs with 42 computers. There is no new media access in the classroom. As the number of students who enrols in School A is 1200, the student-to-computer ratio is 28 students per computer (28:1). Due to the limited technological resources, students in School A only have the opportunity to use computers and the internet at the computer labs during the ICT Literacy (ICTL) lesson that is conducted once a week. At other times, students are generally not allowed to use the facilities in the computer labs.

It was observed that, students are taught basic knowledge of computer applications and the internet during the ICTL lesson. When asked about their ICTL class experience, the student participants responded:

Amanda: Basically, most of it is about Microsoft...how to make a video, Microsoft Word.

Donald: We learn about peripherals...CD-ROM, computer RAM...we learn about the motherboard, daughterboard and all, yeah...the hard disk and all.

While it is important for students to acquire the fundamental skills and knowledge to be ICT literate, schools also need to carefully consider their prior experience with new media. Based on the interviews conducted with the student participants in School A, the researcher found that, all of them have prior experience of new media. They were exposed to the use of digital technologies since young age and are familiar with the use of computers, the

internet and gaming consoles, which indicates their rich new media experience.

Unfortunately, the ICTL class is conducted without taking into consideration students' prior knowledge and experience of digital media. As a result, some of the students do not find the ICTL class useful or enjoyable. This is explained by Ali in the following quote:

> Haha…it's quite boring actually. In school, it's like learning it all over again. They (the school) are doing it for others who do not have computer at home. That's why they (the school) are teaching it all over again.

For this reason, Ali prefers not to attend the class. As for Donald, he too does not find the class beneficial. According to him, the only reason why he attends the ICTL lesson is, because he feels that students are 'forced' to attend it. This shows that School A fails to meet the expectation as stated in the ICTL course guidelines, which is to conduct the lesson flexibly, according to different levels of students' proficiency and experience of new media (MOE, 2007a).

In comparison to School A, School B is recognised for its excellence in ICT. A more frequent and liberated use of new media was expected. The researcher found however, that, in term of technological access for students to utilise, there is not much difference between the two schools. Similar to School A, School B also have only two computer labs for students to use. Access of computers, the internet, and the LCD projector are available in every classroom, but, it is only for teachers' usage. The main difference between the two schools is that, School B permits its students to utilise the facilities in the computer labs after school. Students can use computers and the internet to do their assignments, and search for information relevant to their studies. Unlike in School A, where some of the computers in the computer labs are not functioning, the researcher found that, School B's digital facilities are in better condition. Students benefit from good technical support, and well managed technological infrastructure. This allows them to utilise the digital facilities for their learning. In this instance, not only that it is important for schools to be equipped with sufficient digital facilities, but these resources also need to be systematically managed and maintained (UNESCO, 2004).

Similar to their peers in School A, the student participants in School B also have prior knowledge and experience of new media. In school, they also primarily use computers and the internet during the ICTL class session. However, unlike their peers in School A, the student participants in School B are generally more receptive towards the ICTL class. This is evidenced in the following excerpts taken from interviews with Suresh and Vincent:

Interviewer: *Do you know how to use Microsoft Word before?*

Suresh: *Yes, at home my aunt who is a lecturer at a college…she teaches me.*

Interviewer: *So the things that you learn in school, is it a repetition of something that you already knew?*

Suresh: *No, it's something new. Not much repetition. Every time, teacher teaches us something new.*

Vincent: *No, no, some of the things are new. Sometimes we learn something new…like, teacher teaches us new things in Microsoft Word. There are many things there…sometimes we use PowerPoint and things like that.*

Despite their prior new media experience, Suresh and Vincent always think that they have something new to learn in the ICTL class. The contrasting opinions and attitudes showed by students in School A and B may possibly due to the differences in ICTL teachers' knowledge, experience and attitude of digital media, as well as, the way how the ICTL class is being conducted in the two schools.

3.2 The State of Schools' Technological Infrastructure

As indicated in the earlier discussion, there is not much difference between School A and B, in term of the technological resources for students to use. Access of computers and the internet are only available for students at the computer labs and resource room. When probed further about the state of the school's technological infrastructure, two of the participating teachers at School A believe that, it is adequate, while the other two teachers think that, it should be improved. According to Miss Jane, she rarely uses new media for teaching and learning purposes because there is no access available in the classroom. Similar opinion was shared by Mr. Kwok who claimed that, he is concerned with the amount of time consumed by students when they make their way from the classroom to the computer labs. This is one of the reasons why Mr. Kwok refuses to regularly use the facilities at the computer labs with his students. In the Malaysian context in which this study was conducted, time is considered as an important factor, as teachers are obliged with the responsibility to complete heavy course syllabus, and prepare students for examinations. In a way, this finding is similar to Bingimlas (2009), who argued that, the availability of the technological resources is crucial, in determining whether new media is

frequently used or not for teaching and learning.

Even though there is not much difference between both schools in term of the technological infrastructure for students, the researcher found that, School B utilises its digital resources more efficiently than School A. Although the use of new media for teaching and learning purposes in the classroom is still minimal, as each classroom is only equipped with technological access for teachers to use, School B provides more opportunity for its students to utilise the facilities at the computer lab. In order to ensure that the facilities in the computer labs are in good working condition, School B established the IT Brigadier, a student based organisation that takes care of the school's ICT facilities, including the computer labs, and the equipment in the classrooms. Led by Miss Ashley, the school ICT Coordinator, IT Brigadier is assigned with the important task of managing and maintaining the school's ICT infrastructure. Initiative like this is exemplary, and should be considered by other schools. Not only that the IT Brigadier provides students with useful learning experience, but it also ensures that the school's digital infrastructure is carefully managed and maintained.

3.3 Schools' Leadership and Policy of New Media

As a senior supervisor at School A, Mr. Kwok admitted that, due to poor technological infrastructure, the school in general fails to integrate new media in teaching and learning. Even though School A's technological infrastructure and technical expertise are below the standard required, Mr. Kwok informed that, the school leadership strives to improve its condition to serve students' technological needs better. In order to capitalise on the potential of new media for teaching and learning, the teacher participants at School A believe that, it is necessary for every classroom to be equipped with computers and the internet for teachers and students. When asked if it is possible for the school to request for an increased funding from the ministry or the state education department, in order to improve on its technological infrastructure, Mr. Kwok explained that, this has never been done before and he doubts that such effort would be successful. According to him, the ministry allocates more funds to new schools, and to schools that are in rural areas. Considering the high cost involved to improve its technological infrastructure, Miss Maryam suggested that, School A should work towards achieving the 'Cluster School of Excellence' status. This is because, Cluster Schools are granted with a bigger annual budget, and greater autonomy, to enable them to excel in both academic and students activities (PMR, 2012). In order to attain the Cluster School status, schools need to demonstrate good management and leadership, as well as potential to excel in any niche area of their choice, such as in English, ICT and sports (PMR, 2012).

Similar to School A, School B was an ordinary secondary school. Its continuous struggle to excel in both academic and co-curriculum, particularly in ICT, English and Chess were rewarded, when the school was granted the Cluster School status by the Ministry of Education Malaysia in 2008. According to Miss Ashley, the effort to integrate new media in teaching and learning began in the late 1990s. The school started its own ICT lesson for small groups of students in 1997 before the programme was expanded to the whole school. During the time when this study was conducted, each of the classrooms in School B is equipped with a computer, internet connection, LCD projector and screen for teachers to use in their lesson. When asked, if the school has better technological facilities compared to many other schools because of the five stars Smart School rating that they have attained, Miss Ashley explained:

Interviewer: Is it because the school is a Smart School?

Ashley: No, it's all (the effort) of the PIBG (Parents and Teachers Association), OBA, the old boys, not from the Ministry.

Interviewer: This school is rated as a five stars Smart School right?

Ashley: Yes, we are. We are not a Smart School, but we are five stars in ICT among the non-Smart Schools.

Throughout the years, School B had to deal with different challenges, including poor technological infrastructure, inadequate fund, lack of technical expertise and teachers' resistance to change. But the school is very proactive in its effort to integrate digital media, and this is evident in the way how it managed to solve the issue related to deprived technological facilities in the past. Instead of relying solely on the government allocation, School B forges a relationship with the Parents and Teachers Association and the Old Boys Association, to continuously improve the school's state of technological infrastructure. Even though School B's initiative is still considered as a work in progress, its new media policy in general, and the way how the school transformed itself from an ordinary school to a 'Cluster School of Excellence' is exemplary and should be followed by other schools who aspire to champion the use of digital technologies for teaching and learning.

3.4 Teachers' Attitude and Knowledge of New Media

In the Malaysian context in which this study was conducted, it is worthy to note that, even if the school is equipped with state of the art digital facilities, there is no assurance that teachers will incorporate them in teaching and learning. This is due to the fact that, beyond the issues related to the state of school's technological infrastructure, and its adopted new media policy, teachers' attitude of new media is shaped by the existing educational system which gives much emphasis for examinations. In Malaysia, teachers have the responsibility to complete heavy course syllabus within the specified time, and to prepare their students to face four major public examinations, namely the Primary School Achievement Test (UPSR), Lower Secondary Examination (PMR), Malaysian Certificate of Examination (SPM) and the Higher School Certificate Examination (STPM) or Higher Malaysian Certificate of Religious Education (STAM) (Nurul-Awanis, Hazlina, Yoke-May, & Zariyawati, 2011). This was evident, when the participating teachers indicated that, rather than utilising new media for teaching and learning, they prefer to stick with the more conventional 'chalk and talk' strategy to ensure that they are able to finish the syllabus on time. In order to utilise digital media for teaching and learning, a change to the existing educational system is necessary (Collins & Halverson, 2009). As of 2014, the reform was still at its infant state, with the Ministry of Education Malaysia (MOE) trying to transform the schooling system, to make it more holistic and balanced (MOE, 2012b).

Beyond the educational reform that is underway in Malaysia (MOE, 2012b), it is also important to closely examine teachers' attitude and knowledge of new media in general. As Cowie, Jones and Harlow (2010) argued, whether teachers are willing to integrate digital technologies in their classrooms or not, largely depends on their attitude and knowledge of new media. In relation to this study, the researcher found that, some of the participating teachers at School A are unwilling to incorporate new media for teaching and learning, even if the facilities are made available in every classroom. For instance, when probed about the possibility of students using computers and the internet, and learn individually at their own pace, if the facilities become available in the classroom, Miss Jane responded:

> Students could not use computers on their own. In the labs, we have computers for students. But then…the thing is, sometimes it is very difficult. Last time we used to go online, but then it's very difficult to control them. They sit in a circle (seating arrangement), they tend to do something else, go to different websites…haha (laugh)…so we don't encourage that. Now, we just use one computer, so they have to watch…we can control students and what they are doing.

Even if new media is incorporated in every classroom, it is only used as a medium to 'impart knowledge' to students. Instead of providing students with the opportunity to explore their own learning with new media, some of the teacher participants at School A use the CD courseware provided, and the Microsoft PowerPoint as teaching aids, to help them deliver their teaching contents more effectively. They believe that, the use of graphics and multimedia can help to attract students' attention better. This shows how the potential of new media is underutilised. According to Ainley et al. (2002) and Zain et al. (2004), in order for new media to be fully optimised for teaching and learning, it is necessary for teachers to change their pedagogical beliefs and practices, from the instruction based teaching approach, to knowledge construction, where learners are provided with increased opportunity to explore their own learning using computers and the internet.

Changing classroom practices however, is not an easy thing to do. It requires teachers to embrace the new pedagogical beliefs, to be technologically proficient, and to acquire the right knowledge, to adapt to the new role as facilitators, who are able to assist students' learning within the technologically enriched classroom environment (ICT, 2010). In order to prepare them for such challenges, teachers should be provided with continuous opportunity to attend new media development courses. The professional development programme that is carried out effectively is useful for teachers. It could help them to improve their knowledge and skills of digital technologies (DETWA, 2006). In relation to this study, the researcher found that, the opportunity for teachers in School A to attend new media related in-service training courses is very limited. The participating teachers informed that, the last new media training programme that they attended was more than five years ago. Despite limited opportunity, teachers appreciate the chance to attend training programmes. It was through their participation in such courses in the past, that they learned to use important applications including word processing, spreadsheets, and multimedia. Even though some of them claimed that, they already have a sufficient proficiency of new media, a long period without attending any training programme raises a concern, if the knowledge that they have is still relevant.

In comparison to the participating teachers in School A, the teachers in School B, are generally more positive towards the use of new media technologies for teaching and learning. When asked about the possibility of

students learning with technologies such as computers, and the internet, should the facilities become available for every learner in the classroom in the future, Miss Ashley and Miss Ruby responded positively by indicating that, they are keen to integrate new media into their pedagogical practices. The differences in attitude, between teachers in both schools, may possibly due to the frequency and quality of in-service professional development programmes that they receive. Unlike in School A, teachers in School B have more opportunity to attend regular new media related training programmes. Not only that they are familiar with the basic applications of new media, but the teacher participants in School B also have the opportunity to learn more advanced ICT knowledge and skills, including iTeach, ThinkQuest, Drupal, 1BestariNet and Eduwebtv. Some of the courses are conducted by Miss Ashley herself, based on the knowledge gained from the courses that she attended earlier. From time to time, Miss Ashley also invites professional trainers to come to the school to train teachers, especially on more advanced applications such as the Adobe Creative Suite and Drupal. This finding, reaffirms the earlier study conducted by Hamzah, Ismail and Embi (2009), who reported that, participation in the ICT related training courses is beneficial for teachers, as they acquire valuable knowledge and skills of new media, and make them to be more positive, and confident in utilising new media for teaching and learning purposes.

4. Conclusions

This study does not intend to criticise any particular educational policy, but it aims to provide, a critical insight pertaining to the actual practice, and the arising issues, related to the integration of new media in teaching and learning in schools. This is to inform the policy makers of the present state of policy implementation, and provide avenues of how, the existing practice can be further improved. Beyond policy rhetoric, the integration of digital technologies, in the two schools, in which this study was conducted, is well below the level expected. In term of technological infrastructure, School A and B, do not have the facilities required to enable liberated teaching and learning with new media. Students' use of new media in school is basically limited to during the ICTL class session only, where they are taught to be ICT literate. Even if schools have adequate technological access for students in every classroom, there is no assurance that teachers are able to make full use of it for teaching and learning purposes, because they are more concerned with the responsibility to finish the heavy course syllabus, and prepare students for examinations. As the findings of this study suggest, besides technological infrastructure, a successful integration of new media for teaching and learning is also influenced by other interrelated factors, including, school's leadership and policy, and teachers' knowledge and attitude of new media.

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