Teachers as Facilitators Integrating Social Network Technology into a 21st Century Classroom in an International School in Kuala Lumpur

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Abstract

The objective of this study is to comprehend how teachers prepare their students for 21st-century learning using social networking technology. Data in this research was collected through observations and interviews. The interviews were structured and comprised open-ended questions. The data was analysed using qualitative methods. Six teachers from an international school in Kuala Lumpur were interviewed in this research: two teachers from its kindergarten, two teachers from its junior school, and two teachers from its senior school. The findings showed that the teachers had integrated social network technology in creating a 21st-century classroom. The use of technology helped them to transform teaching in their classrooms. It helped them to prepare their students for the global digital transformation taking place at present. Integrating social network with 21st-century learning in the classroom benefited both the teachers and students. Most of the social network applications are easy to use. Once a week, the teachers attended technical professional development training organised by information technology specialists and technicians to upgrade their skills and learn to use the latest devices and applications in order to support the transformation of their role towards learner-centred 21st-century learning.

Keywords: *21st-Century Learning, Educational Leader, Learning Strategies, Social Network Technology, Teachers' Training*

Introduction

Students today are different from those in the 19th and 20th centuries. Known as millennials or Generation Y, they are creative and innovative thinkers who are perpetually connected on social networking. In fact, social networking is the new norm in society as many learners today have an online presence (Shahnawaz & Rehman, 2020). Social

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networks have also changed the way teachers interact with their students (Gómez et al., 2012). They can now create and share resources and information globally with their students and the latter are able to use computers efficiently and professionally to communicate and learn. This has enabled teachers to creatively use 21st-century facilities provided by a school to make teaching and learning more interesting and exciting.

This study was conducted at an international school in Kuala Lumpur which has students from all over the world, including Malaysia. Most of the students' parents are foreigners working and living in Kuala Lumpur. The school comprises three parts – a kindergarten, a junior school, and a senior school. Its students range from 4-year-olds at the kindergarten up to 16-year-olds at the senior school.

According to the school's 2019-2020 performance appraisal report, many of its teachers needed to upgrade their computer skills as they were still afraid of and uncomfortable with technology. They require upskilling and the school is ready to provide them with technical training and continuous professional development opportunities to upgrade their technological skills and abilities. The training will help the teachers to learn new technological skills and ask questions about the applications they have to use in their lessons. A committee of teachers was set up by the school principal to provide technical support and ensure that all the teachers have a tech buddy to assist them if they face difficulties with using technology in the classroom.

Professional development is even more necessary today. With the emergence of the COVID-19 pandemic, there is even greater need to revisit and strengthen current perspectives on the role of technology in non-technological classrooms (Laborda et al., 2020). The current situation calls for a review of basic literacy and computer skills and practices. For example, traditionally, technology in the language learning process has been considered anecdotal. As a result, many teachers lack the skills to set up appropriate classrooms with technological support.

The international school expanded the technology department by acquiring several servers and various types of system centralised software. In addition, it employed an information technology (IT) specialist and a few IT technicians to train its teachers, provide technical support during the teaching and learning process, and help the teachers troubleshoot technical hiccups during a lesson. Regular training and continuing professional development are provided to help the teachers improve their technical skills and conduct a 21st-century classroom. This initiative is supported by the finding that teacher training programmes can enhance the delivery of major curriculum reforms (Blimpo & Pugatch, 2021).

Literature Review

Social Network Technology

Social networks are crucial for teachers as these help them to save a lot of time in preparing worksheets, assignments, and other resources for their students. Social networking platforms have the power to enhance collaborative learning as they enable students to communicate with one another effectively. These platforms also get students excited about completing their work. For instance, teachers can link complex and challenging lessons to relevant YouTube videos so that students can understand the depth of a topic in a fun and engaging way.

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Today's generation is advancing towards a different world which moves at a rapid pace (Burstein, 2013). Social networking has created a link whereby teachers and students are able to actively interact with one another (Zaidieh, 2012). Teachers can connect with students who are not only in their vicinity but also located across the globe. This has expanded the diversity of social, cultural, and political networks, and helped teachers and students to connect and interact in a convenient and easy manner. These days, most students own a personal device which they use to gain entry into social networks to communicate with their teachers and peers and to access materials and resources. Relationships are based on the expansion of a personal profile (Kwon & Yixing, 2010).

Over the years, social networks have been rapidly acquiring importance as tools for communication, education, and interaction (Akcaoglu & Bowman, 2016; Albayrak & Yildirim, 2015; Chromey et al., 2016). They have an impact on the teaching and learning process as they enable diverse teachers and students to collaborate and interact (Hershkovitz & Forkosh-Baruch, 2013). The social networks that teachers and students commonly use are Facebook, YouTube, and Instagram. These are highly useful in accessing materials and engaging with others in the classroom and beyond. Consequently, these social networks have become some of the most prevalent and dominant communication and information-sharing tools in recent times. In fact, Web 2.0 tools are developing and changing every day even though there is already more than enough software for people's use (Liu, 2010).

Students of the 21st century require technological skills (Zaidieh, 2012) as they are expected to engage in social interactions through Facebook, Google Apps, and WhatsApp. Teachers, too, are realising the advantage of having tech-savvy students and including social networking as a tool in their curriculum. Ultimately, social networking can be a vital tool in the classroom (Klindt, n.d.).

The 21st-Century Classroom

Students today are called digital natives, as technology makes up a major part of their lives. It thus follows that the 21st-century classroom is a learning environment equipped with myriad up-to-date digital devices such as smartboards, computers, cameras, and other devices that help facilitate modern teaching and learning.

According to Abao et al. (2015), education in the 21st-century highlights globalisation, internationalisation, and the use of technology for the development and improvement of the knowledge, skills, and mindsets of students and teachers. It reconsiders the roles of teachers and students as well as the layout of a traditional classroom, and suggests solutions to create a more effective learning experience (Gocen et al., 2020). It demands new skills from students, so the focus must also be on teachers with 21st-century skills (Schleicher, 2012). Therefore, teachers must spearhead classes with more operative and advanced teaching approaches.

Learning Strategies

The main priority of 21st-century learning is to incorporate 4C (collaboration, creativity, critical thinking, and communication) strategies into teaching and learning. These strategies help learners to work in pairs and groups, conduct research, solve problems, and do many other things using technology and interactive software (Bedir, 2019). The culture of constant learning relates to students' progress to help them become more aware of how they learn best and nurtures dynamic learning habits such as journalling and curating a portfolio using technology. Students need to systematically cultivate a habit of keeping and gathering written lists online, labelling their preferred topic entries, and using a journal as a learning tool for personal growth and satisfaction.

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Research Objectives

This study sought to identify how teachers as facilitators integrate social network technology into a 21st-century classroom. They must be able to effectively engage their students, who are creative and innovative thinkers and constantly connected on social networking platforms. They should be able to provide digital resources, applications, and the use of digital devices in the teaching and learning process in the classroom. The objective of this study is to discover how teachers prepare their students for 21st-century learning by using social networking technology.

The study aimed to answer these research questions:

i.   To what extent do teachers facilitate 21st-century teaching and learning in the classroom?
ii.   What impact can social networks have on 21st-century learning in the classroom?

Methodology

This is a qualitative research with data gathered through observation and interviews. Participant observation was used for deeper understanding and development of interactions with teachers and students in the classroom. Structured interviews with open-ended questions were conducted with six participants, who comprised two teachers from the kindergarten, two teachers from the junior school, and two teachers from the senior school of the international school in Kuala Lumpur. The teachers were observed and interviewed to gather information for this study. The interviews were conducted during the teachers' break time, lunchtime, and free periods. The observations were made during lessons where the observer became a part of the participants. The observations were also carried out during an open day for parents.

The six teachers came from varied backgrounds in terms of education and experience. Both the kindergarten teachers were women in their 30s who possessed a diploma in early childhood education and had two years of working experience before joining the kindergarten. Both had also been working there for three years. As for the two junior school teachers, one of them was a 27-year-old female graduate with a degree in education specialising in the humanities and had a year of working experience. The other teacher was a 40-year-old female trained at a teacher training college in Malaysia and had been working at the school for about 10 years. Meanwhile, both the senior school teachers had a degree in education with specialisation in mathematics. One of them was a 30-year-old female who had been with the school for a year while the other was a 50-year-old male who had been with the school for about 15 years.

The privacy and confidentiality of the participants were safeguarded by not disclosing their name and identity as well as their school's name in the data collection and reporting of the study's findings.

Findings

According to the kindergarten teachers, they faced difficulties in using digital devices in their classrooms and using social network applications. They were encouraged by the school to undergo training after school hours to overcome these difficulties. With the training provided by the school IT specialist and technicians, they were able to handle the devices and applications confidently.

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After the training, the kindergarten teachers began using various types of educational interactive and game software on CDs for their lessons. They also allowed their students to present their work in front of the class. Problem-solving became easy as the teachers used the software to demonstrate skills to their students. In addition, the teachers checked and marked the activities completed by their students daily and provided individualised guidance to those whose performance was below average.

The teachers also became adept at using social network applications and found them very helpful. This increased class participation as their students could interact and communicate with them and one another while engaging in problem-solving activities. The teachers downloaded interesting and attractive online worksheets from the internet for their students, who enjoyed working on them and were able to understand their lessons better. In addition, the students downloaded educational software onto their home devices with the help of their parents. The students enjoyed using the software as these included attractive animated graphics, sounds, and colours, which helped the students to become fast learners. Both the teachers were happy that they received guidance and training from the IT specialist and technicians to improve their work performance.

A case in point is an interdisciplinary learning science project for science class. The students prepared space-related decorations, such as moon rocks, space rockets, and planets, during their arts lesson and displayed them in a corner of the classroom. Then, they sat in a circle on the floor and sang Four Little Astronauts, which had been downloaded by the teachers using a smartboard. The students sang while performing actions which followed the online presentation. Next, they were ushered to sit in front of the smartboard to take part in an interactive online quiz on planets. The teachers gave instructions on how to answer the quiz questions and the smartboard had touchscreen options which required the students to use their fingers to select the correct answers. Each student had to come up to the smartboard and answer a question. As a result, the quiz fully engaged their attention. One of the teachers took pictures during the activity and shared them through WhatsApp and Facebook for the students' parents to view. After the quiz, some of the students wore an astronaut suit and pretended to be astronauts walking on the moon while other students sat at a switchboard and used headphones, speakers, and microphones in pretending to communicate with them. The lesson helped the students enjoy learning through social networking and also allowed parents to watch how their children learned in their classroom.

At the junior school, the younger teacher (JT1) was tech-savvy so she could handle IT devices and applications well. She had been using Google Classroom and other Google applications for her lessons. In contrast, the older teacher (JT2) had problems using technology devices and was very uncomfortable operating computer devices during lessons. She was asked by the school to attend the technology training after school to upgrade her technology skills. JT1 assisted JT2 to set up technological devices during lessons and shared her materials and resources with JT2 as both of them were teaching geography to students in Year 3 during the period of observation.

According to JT2, she was very happy with the extra training provided by the technical team to upgrade her computer skills. She now used Google Classroom and other Google applications during her lessons. All the activities in her geography class were uploaded and stored in Google Classroom. If students were unable to complete their work in class, they were allowed to complete it at home through Google Classroom. They were also allowed to ask questions through WhatsApp and to communicate with their classmates through Google Classroom while at home. The students also received assignment deadlines on Google Classroom. The teacher preferred to use Google Classroom and WhatsApp as learning communication channels. Assignments were marked and displayed online for students to view the marks and remarks given by the teacher. She was able to post most of her

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assignments and worksheets online for her students. Both the teachers found that technology saved a lot of their time in preparing worksheets and marking them online.

On open day, the teachers used social networking for class projects. They provided their students with attractive worksheets and pictures, downloaded from educational websites and uploaded on Google Classroom. They shared the worksheets and pictures with the entire class and gave the class code to the parents as well. This enabled the parents to view their children's work online from home. During the class, the students surfed the internet in groups to search for information to complete their class project. The students viewed related videos on YouTube to understand the topic they were learning in depth. The school provided them with Chromebooks, headphones, and a microphone to facilitate their learning. The teachers decorated and transformed the entire classroom to look like a mini Amazon rainforest. They also used the smartboard to upload audio and video files which emulated sounds and scenes in a forest, such as chirping birds, buzzing bees and insects, leaves rustling in the wind, and little animals running around, which helped the students to become immersed in the topic completely.

Both the senior school teachers taught Year 8 math. On open day, they presented a showcase of students working with MyMaths software, which is an interactive time-saving resource. While the female senior teacher was tech-savvy and knew how to operate IT devices and applications very well, the male senior teacher was experienced with digital devices but had limited technology skills. Nevertheless, their students enjoyed working with MyMaths. They proved able to work with it and developed confidence and fluency in mathematics.

The teachers used Google Classroom for their lessons. They uploaded learning materials and additional resources onto Google Classroom for the students. The students could manage their own learning as they were more mature and capable of managing themselves. The teachers communicated with the students regularly through WhatsApp to help them from home. In MyMaths, the students' classwork was marked online. They were given enough time to complete a given task within a reasonable deadline. The teachers found social networking to be a great help in encouraging students to explore their own learning and discover new resources. The students could communicate and collaborate online using Google Classroom. They could also source valuable resources from the internet to help them complete their tasks successfully.

Google Classroom is a reliable software which allows all materials, planning, announcements, and notifications to be uploaded online at any time. It allows users to organise teaching and learning systematically and efficiently. All documents can be stored safely into manageable place holders in Google Classroom. Students' projects, assignments, activities, and more can also be marked and stored on Google Classroom.

Teachers need to educate their students on safety measures while using the internet and browsing websites. When students face difficulties handling technology devices, teachers can teach and guide their students to gain a positive attitude towards using the technology devices confidently.

In the senior maths class, students were given a username and password to work directly online with MyMaths, which was purchased by the school as an added activity for the students. The students enjoyed working with MyMaths and gained greater understanding. The math teachers played the role of facilitators and helped the students in working with equations. MyMaths is an interactive software with lessons that come ready-made with a range of tools and activities. The maths teachers set timed activities. The students were engaged and excited while working collaboratively online. As soon as the time ended, the

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equations were marked automatically. Both the maths teachers created a WhatsApp group with parents to update them on the performance of their children in MyMaths.

Discussion

The international school teachers transformed into facilitators to improve teaching and learning in the classroom. They incorporated 4C techniques in the curriculum to help their students learn better in the classroom and at home. The students in the senior school were allowed to bring their own devices to school. They used their handphone or laptop to surf the internet, share files, images, and other documents in the classroom with their peers.

Today, teachers as facilitators prepare students in the classroom to face the real world. In 21st-century learning, students must be able to communicate, collaborate, and think creatively and critically. Therefore, teachers need to identify promising strategies such as making a complex curriculum relevant and helping students learn how to teach themselves and foster creativity. They are responsible for their students' learning process so they need to guide their students in completing tasks correctly. They also have to provide correct instructions and inspire their students so as to make learning enjoyable and help them acquire the 4C skills and widen their knowledge.

As facilitators, teachers can prepare appropriate activities for senior, junior, and kindergarten students. Furthermore, they should encourage students to participate and make suggestions to encourage students to complete activities and become independent learners. They should guide and help students if they face difficulties; otherwise, students would feel left out or neglected. As facilitators, teachers must design their teaching and learning programmes in such a way that their students become the centre of learning. They should ensure that all activities consist of exploration, investigation, discovery, and research.

In the kindergarten and junior school, the students were provided with Chromebooks and tablets to be used in the classroom for learning. Lenhart et al. (2010) revealed that internet use was near universal for teenagers and youths. Facebook is presently the most commonly used social networking platform by educators in schools. Today, the internet has become an integral part of daily life, facilitating communication, education, and entertainment (Kurniasanti et al., 2019). The behavioural pattern of internet overuse has similarities with substance abuse, such as tolerance, abstinence, repeated inability to reduce or quit, and disturbances in daily life.

Integrating social networks with 21st-century learning in the classroom has benefited both teachers and students. Most social network applications are easy to use and user-friendly. Social network applications provide options to add or invite friends into the network. For example, Facebook and Twitter allow students and teachers to invite other students to join their network. Students could communicate, share ideas, share experiences, and discover the latest updates through their friends. Facebook and Twitter are convenient networks for teachers to create small groups by inviting their students to join. YouTube is another very popular channel among teachers to enhance teaching and learning. It is an online video source in which nearly any video file can be saved and showed free of charge (Watkins & Wilkins, 2011). Teachers can create a YouTube account using Google Applications and upload videos to share their YouTube channel with their students. They can also create websites on Google Application using Google Sites. They can upload all their lessons, videos, worksheets, and assignments on Google Sites. They can then share the website link with their students using their personal Gmail account to access the links.

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Initially, the school used the traditional teaching methodology. Then the school began incorporating the use of technology in the teaching and learning process, which changed the classrooms and began preparing the students for the digital transformation of the future. The school improved the teaching methodology to adapt to 21st-century teaching and learning by employing an IT specialist and IT technicians to maintain computerised classrooms. The technicians assist teachers who face difficulties with computer hardware and software as well as Internet connection. In the senior school, the students' parents must sign a Bring Your Own Device policy. The rules and regulations stated in the policy must be followed strictly by the parents and students. After the policy is signed, each student is given a password by the IT specialist to access the school's Wi-Fi connection. Students are allowed to use the school's Wi-Fi connection only on campus with the permission of their subject teachers during lessons.

Every week, the IT specialists and technicians organise training for the entire school. During the training, teachers are taught how to use various types of software and devices that are purchased by the school. The teachers learn new skills and upgrade existing skills. For example, they learn how to create attractive and exciting worksheets using various software from Google Applications. Meanwhile, social networking is an application that allows students, teachers, parents, and professionals to communicate and interact online with the use of a computer and an internet connection. Teachers should demonstrate proficiency in retrieving, recollecting, and recovering data online and be able to evaluate reliable online resources for their students.

Conclusion

Social networking channels encourage passive students who rarely participate in physical classroom discussions. To make the lessons more interesting and interactive, teachers incorporate PowerPoint presentations and encourage comments from each student while connecting with other students. Teachers and students collaborate, communicate, and take part actively in the classroom using digital devices. The teachers share resources with their students online. Immediate feedback can be shared with parents and students regarding academic performance and school reports. Implementing technology into the curriculum and providing digital devices in the classroom will improve 21st-century learning. Teachers must be supported with technical and professional development opportunities. The experiences gained by the teachers from such opportunities will spur them to inspire students to use digital devices for learning.

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