CLASSROOM CONDUCT FOR DIGITAL NATIVES
LEARNING IN HIGHER EDUCATIONAL SETTINGS

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ABSTRACT

Most current university students belong to the ‘Net Generation’ or better known as ‘Digital Natives’. Most of these students are known to be digitally compliant and internet reliant. In order to cater for the students in classroom learning, a questionnaire was administered to collect data on students’ frequency of use of digital tools and learning habits. Finding shows that there is high frequency in using these digital tools as anticipated with the most significant finding is that about 80% of the students reported that they are frequently or always online or log on for 24 hours. Based on the findings of the questionnaire, implications for classroom conducts are derived. The study provided recommendations for instructors who are digital immigrants to create interactive and collaborative classroom conducts in order to motivate and to cater for the diverse needs and expectations of the students.

KEYWORDS

Digital natives, Classroom learning, Higher education, University students

INTRODUCTION

Digital Natives refer to the students in universities today whom are born in the digital age where they spend a lot of their daily lives playing digital games, using the computer, surfing the internet, communicating on mobile phones, working with and using other digital devices (Barnes et al., 2007; Kennedy et al., 2007; Lorenzo et al., 2007; Prensky, 2001). This generation of students are also known as the Net Generation, Millennials (Howe and Strauss, 2000) or Generation Y (McCrindle, 2006).

Although most of the researchers generalised that the Digital Natives are technology savvy, Kennedy et al. (2007)’s study found that Digital Natives are only savvy users of established technologies such as email, mobile telephony and SMS messaging and searching the web for information. Digital Natives are not savvy users of newer technologies such as Blogs and Wikis. While a small minority of Digital Natives may use social networking and peer sharing for collaboration and creation of online content, fewer would use social bookmarking or podcasting (Kennedy et al., 2007).

Teaching the Digital Natives effectively is a big challenge to most of the teaching staff in the universities especially when the teachers or instructors belong to the generation where digital skills were adopted later in their lives. Prensky (2001) named these generation of teachers or instructors as Digital Immigrants. As Digital Natives need to satisfy their need for speed in information retrieval, and with some known to show some extent of attention deficit disorder, traditional classroom teaching is no longer sufficient to engage them (Barnes et al., 2007;
Kennedy et al., 2007; Lorenzo et al., 2007; Prensky, 2001). As grabbing learners’ attention is the first condition in the events of instruction (Gagné, 1977), researchers have suggested that instructors learn and adapt using the new technologies particularly for interactivity and engagement to sustain students’ interest and enhance learning (Oliver and Goerke, 2007; Prensky, 2001).

Millard (1998) stated that with the use of learning technologies such as virtual simulations, web-based environments, and interactive materials can help educators grab and hold the attention of the students by delivering information in shorter and more intense cycles. Learning technologies are able to present and represent information through various combinations of media, thus able to cater for learners with different learning styles, and also encourages socialization and collaboration between learners (Norton and Sprague, 2001). Clark and Mayer (2003) also suggested principles of instructional design that by effectively combining multimedia in instruction could reduce cognitive workload thus able to sustain learners’ attention and improve learning. Therefore there are many aspects and options for considerations to be implemented in classroom learning to grab the attention of Digital Natives.

THE LEARNING CONTEXT

Like many higher institutions today, computer based classes in the FCM, MMU adopted the blended learning approach. Blended learning combined traditional classroom learning with Information Communications Technology (ICT) to help students learn better and teachers teach more effectively (Higgins, 2003). Some refer blended learning as mixed learning or hybrid learning where learning is facilitated by the effective combination of different modes of delivery, usually web-based instruction with live instruction, resulting in a socially supported, constructive, learning experience (Heinze and Procter, 2004; Oliver, 2005).

Blended learning can be applied to the integration of e-learning with a Learning Management System using computers in a physical classroom, along with face-to-face instruction. Lecturers create and upload learning materials for the students onto the Multimedia Learning System (MMLS), MMU’s own learning management system (Asirvatham, 2005). While students spend most learning with face-to-face mode of instruction, they use the e-learning mode for beyond classroom learning.

A main premise of higher education is that students are responsible for their own learning. Yuen and Yunan’s (2008) study shown that for beyond classroom learning, students preferred learning from peers (online and face-to-face) and using online materials to learning from instructors and multimedia materials; they least prefer using printed materials, online forums and blogs for learning. In a blended environment, instructors act as facilitators, as motivators, and assist students on how to get information so students can learn independently. Blended learning saves time; it is cost-effective and provides strong supports for first year students in large class settings where it is difficult to cater for each students’ needs face-to-face (Oliver, 2005).

MMU is also a paperless university (Reaz et al., 2007). In this paperless environment, students submit assignments online using file transfer protocols and emails in formats of electronic documentation, whether in a word document, a digital image, multimedia and etc.
This provided students with advantages of reduced printing, confirmation of receipt of assignments and reductions in time delays of submission especially for those living off campus. The downside of paperless submissions would be problem of uploading large assignments over slow Internet connections and the possibility of students hacking into each other’s work (Dalgarno et al., 2007).

**The Digital Natives in FCM, MMU**

As an add-on research to Yuen et al.’s (2008) study of students’ digital habits, this research takes into account the feedback from 270 Pre-U and First Year students from FCM, MMU consist of 231 Malaysian and 39 International students (mainly from Asian countries), students’ digital tools usage and learning habits were determined. A questionnaire was administered to collect data on students’ frequency of use of digital tools and their learning habits. The students were born between 1982 and 1991 (37.4% born in 1990, 30.7% in 1989, 13% in 1988, 10.7% in 1987) which fit the age group of the Digital Natives. All of the students were proud owners of mobile phones. Students owned either a desktop (46.3%) or a laptop computer (25.2%) while some owned both (28.5%). Many of the students own an iPod audio player (44.4%) but very few (4.8%) own a PDA (Personal Digital Assistant). Due to the cultural and financial background of the international students, they tend to have more luxury in terms of digital devices ownership as compared to their Malaysian course mates.

Students spent a lot of time using digital devices for communication (85% IM, 80% logon 24/7, 81% SMS, 70% social networking) and entertainment (87% streaming music, 76% streaming video, 69% peer to peer file sharing, 51% online games, 57% PC games, 47% mobile games), only thirdly for learning (71% e-dictionaries and reference, 50% search information) and collaboration. The study also found that students were not frequent users of Web 2.0 technologies (37% blogs, 14% podcast, 13% social bookmarking). The habits of Malaysian Digital Natives were not much different than the U.S. and Australia students (Caruso & Kravik’s study, 2005; Kennedy et al.’s study, 2007) except that we are 2 to 5 years away from learning trends in U.S. and Australia. Yuen et al.’s (2008) study also found that though currently students in Malaysia are all mobile phones owners, nevertheless they are not ready for mobile learning.

**IMPLICATIONS FOR CLASSROOM CONDUCT**

In instructor-led classroom learning, the lecturers play an important role to guide the learning process and attempts to focus students’ attention. For computer based courses in FCM, lectures remain the most frequent method of instruction followed by in-class discussions and tutorial demonstrations. General classroom conducts such as ethics, moral and respect remain crucial in optimizing classroom learning. Although classroom conducts in institutions of learning differs from one another, basically the lecturer has the responsibility to create a positive classroom climate conducive for learning whereas students play their role in cooperating with the lecturer to optimise learning. Using the feedback from Digital Natives in FCM, MMU, suggestions and implications for implementing digital technologies for classroom conduct are derived.
Lecturers/Instructors

**Personal traits.** There are many aspects of an effective lecturer. Lecturers need to have all rounded skills. Not only lecturers have to be academic able, interested in original research, enjoy, and have aptitude for, teaching, they need to possess confidence in presenting information to an audience and fielding questions. As effective communication is vital in knowledge transfer, good oral and written communication skills are required. Lecturers are also managers where they must be able to work as part of a team, contain leadership skills, organizational and supervisory skills (myfuture, 2009). Lecturers should be able to analyze and solve problems, though understanding no one has all the answers.

Lecturers may refer to Glasser’s (1998) Seven Caring Habits and Seven Deadly Habits to promote learning, giving enthusiastic and constructive feedback rather than negative criticism to students in classroom learning. The Seven Caring Habits are supporting, encouraging, listening, accepting, trusting, respecting and negotiating differences while the Seven Deadly Habits are criticizing, blaming, complaining, nagging, threatening, punishing and bribing or rewarding to control (Glasser, 1998). By dismissing any element that disrupts that climate or interferes with the rights of other members to learn, the lecturers will be able to maintain an environment that promotes learning. Lecturers should always remind the students of proper class conduct and to inform students if they are violating any class rules. Likewise, students should practice these habits as well.

**Blended lecturer in instructor led classroom learning.** The blended lecturer has a lot more to do than is required for traditional classroom teaching. The lecturers need to prepare and review the lesson plan and get materials and equipment ready for the class. In classroom environments, mostly lectures are presented using multimedia resources such as audio-visual projections, slideshows, web-based content delivery, PC-based graphics, animation and video previews. Lecturers can refer to Mayer and Moreno’s (2003) Multimedia learning theories to create multimedia presentations that can engage, inspire and motivate students by effectively combining text, picture, animation and sound.

Regardless Digital Natives or not, lecturers should provide sufficient breaks for students to breather, ensuring that all safety rules are abided and confidentiality and privacy maintained. Maslow’s (1970) Hierarchy of Needs suggest that lower level of needs such physiological, safety and belongingness have to be satisfied before higher level needs such as self esteem and self-actualisation could be achieved. Students will be more effective learners in the classroom if their lower level needs are fulfilled and they will become motivated and independent learners. The faculty and the university may be responsible for the set up of the classroom (lecture halls, studios, labs, etc.), however lecturers can adjust lighting or re-arrange students’ seating for optimized learning. Lecturers should also be familiar with the equipment in the classroom ensuring that multimedia systems such as projector, microphone, sound system etc. are functioning and should be prepared in case any technical problems arise.

Lecturers can make use of face-to-face sessions with the students to give instructions to the students regarding accessing the online information, submission of assignments and etc. In tutorial sessions, students attempt in-class tasks with tutors facilitating demonstration on hands-on exercises, consultations and peers discussions. By giving students task centred instructions and demonstration can promote learning (Merrill, in press). During tutorial
sessions, tutors guide students through the learning process whilst knowledge exchange happens with peer discussions.

**Blended lecturer in beyond classroom learning.** Besides facilitating face-to-face classroom teaching, the blended lecturer designs the online modules and e-learning tools that will be used for the purpose of learning outside of the classroom. The learning modules should be created in such a way that they integrate seamlessly with classroom sessions. The learning modules can be multimedia e-learning materials that students can assess any time anywhere for self-directed studies. Lecturers could also take advantage of digital technologies and Digital Natives’ comfort of use to encourage collaborative and cooperative learning among students and their peers (Neo, 2003) since students are familiar with online social communication and networking.

As Digital Natives spent most their time on social communication, lecturers may use instant messaging for out of class communication e.g. consultation, students can be in contact with lecturers and peers instantaneously, sending mass messages to peer groups for announcement and others. The lecturers must manage these e-messages and e-mails and effectively along with providing a timely response to them. Most learning happens outside of the classroom (Whittaker, 2005), e.g. lecturers do not need to teach students how to SMS. However, lecturers should encourage students to understand netiquette and use proper communication language instead of the ambiguous SMS language (abbreviations and slang most commonly used on the internet and instant messaging) in learning environments.

Blended lecturers can also manage and maintain online discussion groups or forums to encourage interactive communication. Study of Ng et al. (2008) found that using online discussion group improved students’ participation in discussions, promoted self learning and peer learning processes. Not only sharing of information and knowledge could be informal and relaxed, it can be helpful for Malaysian students who are known to be shy and passive. It also provides options and opportunities for students to interact with peers and instructors, where it is mostly difficult in large classroom settings.

Lecturers could also take advantage of existing (or create) games and videos that is related to class and use them as part of class activities or as beyond class learning. Video viewing sessions could add interest to lectures and demonstrations, whereas games and interactive multimedia are able to engage and enhance students’ problem solving skills. Games are able integrate knowing and doing, adding fun and motivating to learning (Shaffer et al., 2004).

**Students/learners**

As communication works both ways, students have to play their part to ensure smooth flow of knowledge. The lecturers may prepare and provide the environment for learning; however the remaining part of learning is up to the learners alone. Lecturers should encourage students to be active learners. Whether online or face-to-face, students should actively participate in class activities and should feel free to express their opinions and ideas in class in an orderly manner. Students should also discuss with lecturers which method are best for classroom conduct and communication. In any case, students may help lecturers with the digital skills needed for smooth conduct of classes.
Basically, the golden rule of creating a classroom climate conducive for learning is to treat others as you want to be treated, students and lecturers alike. To ensure smooth flow of classroom conduct, students should respect the lecturer and other students by not misbehaving in class. Behaviours that are disruptive to class should be avoided, such as having side conversations, interrupting lectures or making off-the-topic comments; use of profanity and offensive language, whether verbal and non-verbal that do not contribute to class discussions should be avoided. Lecturers shall be responsible to dismiss any other students’ activities that clearly are non-participatory.

*Abuse the usage of digital devices.* Digital Natives are owners of many different types of digital devices. Nevertheless these devices should only be used for academic purposes only in classroom learning. Lecturers should remind students that all mobile phones and other communicative devices to be turned off or put on silent mode from disrupting the class flow. Laptop computers are allowed for note taking or quick search for information. Students should not abuse them by engaging in other activities such as checking personal e-mail or browsing the Internet, playing mobile games, online chatting, video recording without the lecturer’s permission, capturing digital photos or other activities not related to class. As Digital Natives are both consumers and creators of knowledge, lecturers have to also constantly remind the students on the issues of copyright and plagiarism.

**SUMMARY AND CONCLUSION**

Both lecturers and students play the role in creating a classroom climate for conducive learning. By understanding the students need and habits of learning, lecturers can adapt and adopt teaching methods and classroom conducts to suit the students. A blended learning lecturer will have to pick up more digital skills if he/she would implement digital technologies in classroom learning to cater for the diverse needs of the Digital Natives. Nevertheless, without the faculty and university’s support, implementation of classroom conducts to cater for the Digital Natives will be difficult.

This study is limited to computer based classes in FCM, MMU where students are savvy users of established digital technologies. Web 2.0 and mobile technologies were not discussed as part of the classroom conducts the students were not frequent users of those technologies. Nonetheless, these newer technologies will play a bigger role in future learning environments. Digital trends will continue to evolve and change the way we communicate and learn. Digital Natives students and Digital Immigrants lecturers will have to continue to work hand in hand to adopt and adapt digital technologies to optimise learning, for the better of both parties.
REFERENCES


