

Incorporation of Mobile Learning Approaches in Staff Training

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ABSTRACT

Mobile devices in training offer a new horizon to help participants to get started with mobile learning in the venture to experience the learning process. Various research emphasize the opportunities and benefits of using mobile learning and simultaneously highlight the obstacles that organizations faced when designing and implementing training by mobile learning. The aim of this paper is to highlight the difficulty in getting more participation and full engagement from the generation Y staff. The traditional approach neglects to consider the different learning approaches of the Gen Y type of learners, their generational attributes and their values at the workplace. Future study should incorporate the use of other platforms such as Whatsapp™ or Instagram™ among Gen Y.

Key Words: mobile learning; in-house training; team building; ADDIE model

1. INTRODUCTION

The world trend in integration of technology in teaching and learning is changing from correspondence paper based learning in the 1960s to e-learning to mobile based learning. In line with the world trend, the mobile learning movement in Malaysia is also growing. Mobile learning is the sophisticated system in a process of learning and can be used with various tools of communication. Mobile learning promotes learning at any place, anytime and anywhere (Ally, 2009; Martin et al., 2013). The learning process is continuous and allows collaboration with others to enhance understanding. Besides, the use of web-based learning is easier and instructions can be delivered through wireless network. The fast development of mobile devices such as smartphones and tablets promotes the usage of mobile technology in education and training. Today, mobile phones and tablets are very much connected to us. To some people, their mobile gadgets are considered as a life companion. Many studies related to mobile learning and teaching are beginning to take ground in public and private universities in Malaysia (Hussin, 2013). The Ministry of Education has established the eLearning Council of Malaysian Universities which includes mobile learning (Embi & Nordin, 2013; Mariam & Muniandy, 2014).

Mobl21 (2015) acknowledged the significant opportunities in mobile learning as follows: 1) Stimulate learning at anytime and anywhere, 2) Promote equal access to learning, 3) Boost social communication, 4) Suitable for multiple learning environments, 5) Provide customised and individualised learning experience.

Many researchers and scholars argue that mobile learning provides the best learning approach without looking at the challenges of the application associated with the mobile learning. Common pitfalls should be identified, best practices and standards should be made available for sharing purposes (Ally, 2009) without sacrificing the learning effectiveness. Jacob and Issac (2008) argued that adaptive learning, limited text constraint, and instant communication are the barriers to be considered. In another study conducted by DeWaard et al. (2011), students in mountainous or rural areas may face geographical obstacles. They were also concerned about the taboo issues and gender disparities that affect the effectiveness of the mobile learning. Finally, these arguments are supported by a study by Mohamad et al. (2012) that highlighted the possibility of misuse, education policy that prevent students from bringing the mobile phone and tablets to schools, the costs incurred to deploy, manage and maintain the system, and finally the possibility of personal space assault.

Despite the challenges, mobile learning is making a strong impact in the training industry. More and more trainers see mobile approaches as necessary to be incorporated into their training modules. Ally and Prieto-Blázquez (2014) proposed the following principles when designing the learning materials associated with mobile learning:

- 1) Presentation approaches that enable learners to understand and learn the material effectively
- 2) Breakdown and structure the information into smaller portion to facilitate processing
- 3) Allocate time for the learners to digest and master the new content
- 4) Allow the interactive learning with proper navigational procedure
- 5) Create the learning materials that are handy and retrievable electronically

Generation Y (Gen Y) is the wired generation, where they grew up in the world of interconnectivity. Gen Y came after Generation X who were born in the

1980s. These young people are enthralled by the unlimited information available online, having special skills in utilizing the social media and know how to

group to support dissimilar views. They insist that change is unavoidable and inevitable, to remain relevant within the modern world.

Many organizations face difficulties in dealing with generation gap especially the Gen Y. A study by Haeberle et al. (2009) showed that generational disparities influence many angles of the workplace related to people, process, systems, and technologies. Kapoor and Solomon (2011) recommended the management to understand and manage workplace with different generations. Therefore, the management should examine attributes of the Gen Y including their view of work, perspective on life and other related issues. Conflicts that exist between generations must be addressed immediately and the gap must be managed in the most efficient way.

The Gen Y's general attributes and values should be considered thoroughly. Referring to the Generational Differences Chart (WWMC, 2015), one of the factors that give great impact on Gen Y is the global digital media boom. Some of their attributes and values are as follows.

mobilise their networks. This is a generation that has, up until now, shown to be skeptical about political parties and are more likely than any other age

“Very attached to the gadget and parents, focused on change using technology, think out of the box, self absorber, techno savvy and value training as important, new skill will ease stressful situation, motivated by learning” (*Generational Difference Chart, WWMC, 2015*).

Learning is unique to an individual. Every learner develops a different learning style as he or she grows up. There are three main types of learning styles; visual learners, auditory learners and kinaesthetic learners. Visual Learners prefer learning through visual methods such as through pictures, graphics, illustrations and the like. Auditory learners prefer listening to sounds before they can understand about things. One of the most common method is to read aloud or listening to background music while studying. Kinesthetic learners, on the other hand, learn best by touching, and hands-on experience. One way is to take notes and doing similar activity involving touching. Several theories of learning apply to mobile learning (Figure 1), (Embi & Nordin, 2013; as cited by Naismith et al., 2006).

Theme	Key Theorists	Activities
Behaviourist learning	Skinner, Pavlov	<ul style="list-style-type: none"> • drill and feedback • classroom response systems
Constructivist learning	Piaget, Bruner, Papert	<ul style="list-style-type: none"> • participatory simulations
Situated learning	Lave, Brown	<ul style="list-style-type: none"> • problem and case-based learning • context awareness
Collaborative learning	Vygotsky	<ul style="list-style-type: none"> • mobile computer-supported collaborative learning (MCSCL)
Informal and lifelong learning	Eraut	<ul style="list-style-type: none"> • supporting intentional and accidental learning episodes
Learning and teaching support	n/a	<ul style="list-style-type: none"> • personal organisation • support for administrative duties (eg attendance)

Figure 1: Key learning theories and suitable activities. Source: Embi and Nordin (2013)

In-house staff training helps organizations to advance their companies. One of the training programmes include team building among all staff. The power of a strong team is many times more effective than individuals working separately. Teamwork skills are taught and encouraged during team building sessions. It is critical to ensure that there are high performing teams to eventually lead to the company's success. The ability to work in a team creates effective staff who will drive the company to greater heights and increase productivity. Another

important element is the diversity of skills and personalities where different personality types balance and complement each other.

This paper explores a case study of staff training programme for a private organization in Selangor. The mobile learning approach was proposed in order to incorporate mobile usage and learning in one of the team building programmes. The main reason for the incorporation of mobile learning is due to most of the target participants were Generation Yers, who are the

digital natives. This approach seemed appropriate and appealed to the new staff at the organization.

2.0 THE CASE STUDY

The aim of this case study is to highlight the practical outlook in executing mobile learning approach in team building at a private organization. The design of the current training module does not appeal to the Gen Y staff. It is difficult to get their participation and engagement. The existing design fails to consider an integrated approach between the types of learning style, the generational attributes and their values at the workplace. The purpose of the new design in team building approach was to reduce the generation gap. The team building programme used mobile devices and mobile learning approaches that opened a new horizon and offered opportunities to the training participants especially the Gen Y to incorporate mobile learning in enhancing their learning experiences.

Every year, the training department conducts team building programmes for the staff of the company

using the traditional training modules. This paper focuses on the latest approach, which incorporates mobile learning in the modules. This is due to most of the target participants were Gen Y staff. The following are the main purposes of the team building programme:

- a) Strengthen bonding and relationships among the workers
- b) Boost teamwork and enhance communication in the organization
- c) Improve quality, productivity, creativity, synergy in the organization
- d) Inculcate the organizational culture and values among the workers

2.1 Programme Design and Procedure

The module for the team building programme was designed based on the ADDIE instructional system design model. There are five phases of the ADDIE model as shown in Figure 2.



Figure 2: The ADDIE Model

In the first stage, the Analysis stage required the programme designing team to consider the needs for instructions, circumstances and barriers and also the participants' needs.

The Design stage focused on the learning objectives, methodologies, strategies and lesson planning. This stage considers all types of learning style when designing the programme. In this phase, the incorporation of mobile learning takes place.

The Development stage involved the creation of colourful presentation slides and other materials for visual learners, prepared list of videos and music to be

used when performing the activities for auditory learners, challenging outdoor activities for kinaesthetic learners and problem solving based activities for indoor games to help the auditory learners to learn effectively.

The Implementation phase executed the usage of mobile devices as a learning tool together with the facilitator's user manual.

The Evaluation phase were done based on the Kirkpatrick's Model of training evaluation (Smidt et al., 2009) as shown in Figure 3 below:

THE KIRKPATRICK MODEL

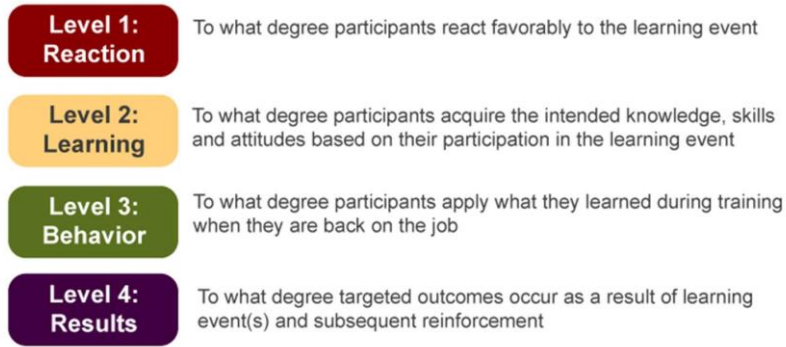


Figure 3: The Kirkpatrick Evaluation Model (Smidt et al., 2009)

The overall objective of the special team building programme was to create a holistic approach in getting the participants to gel together and the focus was to get more participation and full engagement from Gen Y participants. As illustrated in Figure 4, the case

study design was proposed to provide the holistic view of the relationship between the instructional technology and design, the type of learners and the generational attributes and values of Gen Y participants.

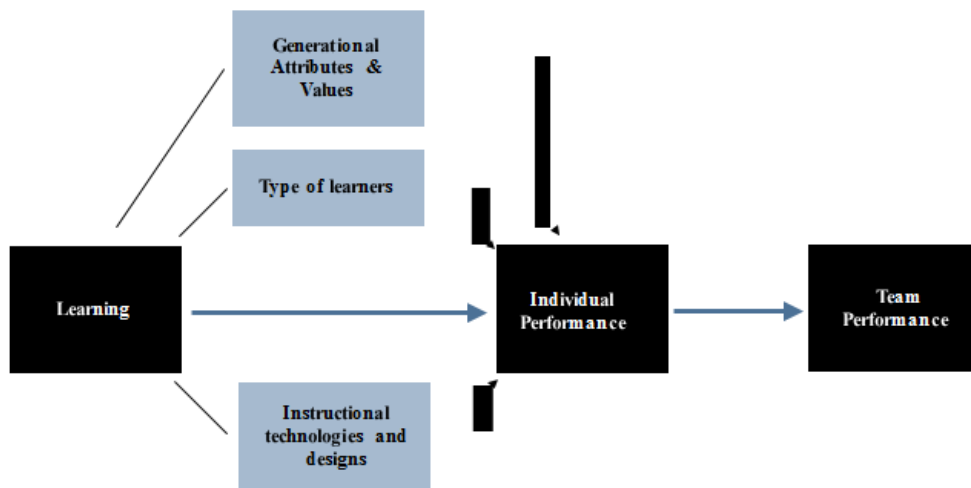


Figure 4: Case study design for Experiential Learning Transfer

The team building programme was executed at one of the famous beach resorts in Malaysia with good wi-fi and network coverage. There were 33 participants, who were executive level management

from one of the departments in the organization. The programme was conducted for two days and one night including the journey from the office to the resort. The itinerary is shown in the figure below:

Team Building Itinerary & Action Plan										
Day	No	Activity	Venue	Start Time	End Time	Duration	Equipments	Requirements	Methodology	Objectives
	1	Depart from HQ	TBA	7.30am	10.00am	150mins	Personal Luggage, Indemnity Form		Group Travel by Bus.	
	2	Arrival of participants & Registration, Welcoming Drinks	Lobby, Function Room	10.00am	10.30am	30mins	Name tag and registration sheet.		Team will register at the dedicated function room.	
	3	Introduction and ice-breaking	Function Room	10.30am	10.45am	15mins	Picture of animals, PA System, music		Participant will find their group by making sound of animals	Break the ice, to get familiar with one another.
	4	Briefing and Opening	Function Room	10.45am	11.00am	15mins	P.A system			
	5	Team formation	Function Room	11.00am	11.15am	30mins	White cloth 2"X1.5", mop stick, crayons, tapes		Draw their team flag, dress up mascot, slogan/tag line & war cry	Creating Brands and group identity.
	6	Orienteering briefing	Function Room	11.15am	11.30am	15mins				Safety, parameters, challenges
Day 1	7	Activity 1: "Stick Placement"	Function Room	11.30am	12.30pm	60mins	Measurement tape, pencils, masking tape		Participants will try to place the pencil as far as they can without any parts of the body touching the ground	Leadership, communication and also teamwork.
	8	Lunch, Check-in, Prayer	Room	12.30pm	2.00pm	1hr 30mins	Nil			
	9	Activity 2: 'Treasure Hunt'	Resort	2.00pm	6.00pm	4hrs	ribbons, list of countries, puzzle, envelopes, first aid		Participant will find items according to the bearings given and ended with rope course challenge	Strategic planning, leadership, communication and challenges
	10	Group photo		6.00pm	6.10pm	10mins	Nil			
	11	Free & Easy	Café/Hall	6.10pm	8.30pm	2hrs 30mins	Nil			
	12	Dinner + Group show	Lawn	8.30pm	10.30pm	2hrs	Musical instruments, props		They will plan to do a show according to the song list given	Communication, teamwork, creativity
	13	Supper		10.30pm	11.00pm	30mins	Nil		Nil	Nil
	Program Break - Rest Time		Individual Room			11.00pm	All Participants			

Figure 5: The team building itinerary and action plan (Source: Survey Data)

Unlike normal team building programmes, all participants must bring their mobile phones or tablets throughout the session. This pre-condition enabled the participants to use their personal mobile devices as a tool in the programme. Participants have to take great care of their tools. The tools become the symbolic meaning of their work burden that they have to carry on a daily basis at their workplace.

Other than that, there were some of the task lists or requirements that they needed to do as a part of the instructional design of the team building programme associated with mobile usage and mobile learning:

1) No torchlight was provided, participants need to use the mobile phone or tablet's torch

light application for the solo drop game (night activity).

2) Additional to normal team's formation activities, all groups were required to create a group in social networking media using Web 2.0 tools (i.e., Twitter) for communication and sharing purposes.

3) No hardcopies of the instruction materials were given, the group leader needed to take pictures of all the instruction materials before starting the Treasure Hunt activity. They were required to understand the hints given using the Google search engine.

4) No facilitator was stationed at the checkpoints except for the first and the last checkpoints whereby the participants had to take a group picture and send it to the lead facilitator to confirm that they have already reached every checkpoint and completed the task.

3. OUTCOME

During the focus group sessions, positive feedback were received on the new modules. Most of

the participants were excited with the different than usual approach. They were very engaged in all the activities and fully committed to the programme. Some of them wished the programme could be extended to a longer duration and requested for a phase II programme. The programme was given 4.5/5 points for overall evaluation. Participants also reported that they can easily refresh newly learnt SKA (skill, knowledge and attitude) online, whenever needed. This concept is matched with the organization's Pull System where the company should "produce or supply whatever is needed, when it is needed in the exact amount needed" (Company Production System). Additionally, this approach also supports transfer of learning to the workplace.

Based on the observation, many participants discussed and shared ideas with their peers to complete their tasks. They shared videos for the best practices from internal and external sources, with each other via their smartphones. Staff members used mobile communications such as Whatsapp™ groups with their colleagues and trainers for certain modules. Most communication, discussion and consultation on the subject matter took place via the 'instant messaging' technology.

Overall, the case study revealed that the mobile learning approach was successful and it has the potential to boost motivation among all staff in order for them to give full commitment to the team and the organization.

4. CONCLUSION AND FUTURE RECOMMENDATIONS

The case study revealed that it is time to start implementing technological innovations in the training

industry. Organizations should revolutionize training methods and integrate the training with the latest technology. However, there is no urgent need to totally change the traditional classroom training approach since it has been proven to be one of the best approaches for formal learning at the workplace. Also, there is no 'one size fits all' system, it should be developed with options to build skills, knowledge and attitude (SKA) of the staff. No doubt this effort requires full support from all levels of the organization, but with knowledge and skills from the training and development team, success should be in hand. Future studies should focus on a more comprehensive approach in staff training in line with the rapid advancement of technology. There is a potential to develop a blended learning method with mobile learning approach for product training in the near future.

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