

USE OF MOBILE TECHNOLOGY IN TRAINING

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There is increasing use of mobile technologies such as cell phones, tablet PC, personal digital assistants, web pads, and palmtop computers in the workplace. As a result, trainers should design and develop training materials for delivery on these mobile technologies. Delivering training on mobile technology will allow employees to learn from anywhere and at anytime. This is critical for today's and tomorrow's workforce which is and will become more mobile and there will be increasing use of telecommuting in organization. Mobile technologies will allow employees to access information and connect with the central office or with other colleagues. With mobile training, employees will also be able to learn from anywhere and at anytime. Ally (2005) defines mobile training as the use of mobile computing devices to deliver electronic training materials with built-in learning strategies for delivery to learners anywhere and at anytime (Ally, 2005). Another definition of mobile training is any sort of learning that happens when the employee is not at a fixed, predetermined location, or learning that happens when the employee takes advantage of the learning opportunities offered by mobile technologies (O'Malley et al., 2003). There are many benefits of using mobile technology for training.

Benefits of Mobile Training

Due to the flexibility of mobile technology, employees can take their training while working on the job. Hence, learning happens in the context in which it is needed and it is relevant and is situated within the active cognitive processes of individuals and groups of learners. As a result, the learning is more authentic and relevant and the employee can apply the information right away.

With the use of wireless technology, mobile devices do not have to be hard-wired to connect to networks to access information. Mobile devices are small enough to be portable which allow employees to take the devices to any location to access information or training materials. This flexibility is critical for just-in-time training especially for employees on the move.

The cost of the mobile devices is lower than desktop computers and users can access information from anywhere and at anytime. At the same time, wireless mobile technology is more economical since it does not require organizations to build the infrastructure to hard-wire buildings and remote areas to reach employees in different locations.

As organizations adopt telecommuting as a choice for employees, there must be mechanisms to allow the employees to connect with each other to share information and expertise and to work collaboratively. The wireless connectivity of mobile devices allow employees to interact with other employees from anywhere and at anytime to share information and expertise and to collaborative on projects. However, before mobile training can be effective, the training materials must be designed properly for delivery on the mobile technology.

Designing for Mobile Training

Similar to other kinds of instruction, it is very important, to use established learning theories to design training for delivery on mobile technology. Examples of learning theories that can be used include behaviourists, cognitivists, constructivists, and connectivists. In addition, a variety of training strategies should be used to motivate learners, facilitate deep processing, build the whole person, cater for individual differences, promote meaningful learning, encourage interaction, provide feedback, facilitate contextual learning, and provide support during the training process. When designing training for delivery on mobile technology, the following guidelines should be followed.

Training strategies must be designed to allow learners to attend to the learning materials so that the information can be transferred from the senses to the sensory store and then to working memory and eventually to long-term memory. The amount of information transferred to working memory depends on the amount of attention that was paid to the incoming information and whether cognitive structures are in place to make sense of the information. So, designers must check to see if the appropriate existing cognitive structure is present to enable the learner to process the information. Also, because of the limited capacity of working memory, information on mobile technology must be chunked in pieces of appropriate size to facilitate processing. For example, information maps that show the major concepts in a topic and the relationships between those concepts should be included in the mobile learning materials. Because of the richness of information maps, they can serve as overviews for training sessions using mobile technology and at the same time, compensate for the small screen size of mobile technology.

For mobile training, strategies that promote deep processing should be used to help transfer information to long-term storage. Strategies should require learners to apply, analyze, synthesize, and evaluate promote higher-level learning, which makes the transfer to long-term memory more effective. Also, strategies to allow learners to apply the information on the job should also be included, to contextualize the learning and to facilitate deep processing. To cater to different learning styles, training materials should be presented in different modes to facilitate processing by different learning styles and transfer to long-term memory. In the job environment, training strategies that facilitate the transfer of learning should be used to encourage application in work situations. Also, learners should be given the opportunity to complete activities that use real-life applications and information. Transfer to job situations could assist employees to develop personal meaning and contextualize the information.

Mobile training should make sure that learners are active in the learning process since knowledge is not received from the outside or from someone else; rather, it is the individual learner's interpretation and processing of what is received through the senses that creates knowledge. The learner is the center of the learning, with the trainer playing an advising and facilitating role. Training must be done in context to allow learners to contextualize the materials during the learning process. If the information has to be applied in many contexts, then learning strategies that promote multi-contextual learning should be used to make sure that learners can indeed apply the information broadly.

Because of the recent development mobile technology, research is needed on how to design training materials for mobile technology and how to delivery mobile training in the workplace to meet the needs of organization. According to Gorlenko & Merrick (2003), the use of mobile devices with wireless technology will allow access of training materials from

anywhere and anytime and will dramatically alter the way people work and conduct business and how people interact with each other. There will be more just in time training with mobile technology rather than taking entire courses just in case the knowledge and skills are required.

References

- Ally, M. (2005). Designing learning materials for mobile training. Paper presented at the Canadian Society for Training and Development Annual Conference, Toronto, Ontario, Canada.
- Gorlenko, L. & Merrick, R. (2003). No wires attached: Usability challenges in the connected mobile world. *IBM Systems Journal*, Vol 42, No 4, P. 639-651.
- O'Malley, C., Vavoula, G., Glew, J.P., J. Taylor, Sharples, M., & Lefrere, P. (2003). Guidelines For Learning/Teaching/Tutoring In A Mobile Environment. MOBIlearn Project Report. Retrieved September 8, 2004 from <http://www.mobilearn.org/results/results.htm>.