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A Corporate View of Mobile Learning

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Abstract

In the corporate training environment, acquisition of new skills by employees through training is critically important. This obviously implies that practice-based training programs that enable employees to internalize, and, more importantly, experience, new skills by doing have a significant impact on getting employees started quickly. This paper looks into the opportunity that is presented by mobile devices to deliver on-the-spot (OTS) practice that interlaces guidance with the do-it-yourself experience, particularly for the non-office based distributed workforce. Further, the paper deals with instructional constructs that enrich audio-based mobile learning. These instructional constructs are an attempt to deliver effective and enriching learning experience through short duration mobile lessons and leverage podcasting capabilities for the development of episodic learning.

A Corporate View of Mobile Learning

Introduction

With the marketplace becoming increasingly competitive, corporations are looking at learning as a strategic support function with the objective of aligning their competitive advantages with their business initiatives. However, the achievement of the strategic intent behind learning is critically dependent upon adoption, or the acceptability of the learning program by the desired audience . Therefore, the role of the learning function and the acceptance of learning programs are central to businesses driven by hypercompetition.

However, the very hypercompetition that makes organizational learning imperative is also demanding on the time of working professionals. Not surprisingly therefore, the sheer lack of time on the part of employees, notwithstanding the motivation to learn or organizational appreciation of the desirability of learning programs, is often the cause of low adoption of learning programs and this proves to be the stumbling block in making organizational learning happen.

Corporate Reality

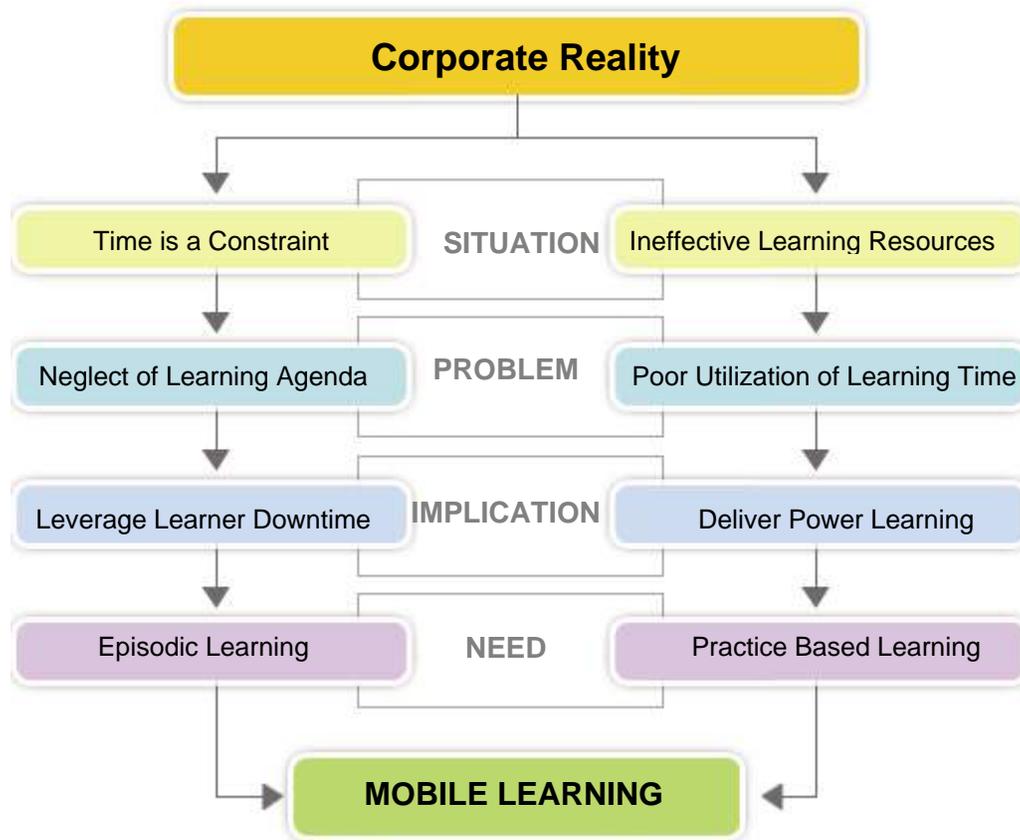


Figure 1

Research indicates that time deprivation is a major bottleneck in realizing meaningful learning intervention. Whether at work or outside, the working professional typically has little time to spare. As a result, the need to learn, inadvertently and unfortunately, takes a backseat. For example, a training program that requires the learner to take out 30-odd minutes may not necessarily fit in the learner's schedule because of the time crunch, both in and out of office. Therefore, a training program, howsoever well intended, instructionally sound, and critically required to plug a competency gap, will fall short of the desired adoption metric.

Direct fallout from the lack of time is the neglect of Personal Learning Agenda (PLA) by time-strapped professionals in the corporate environment. As distinct from organizational

predisposition in the professional learning agenda of a person, the PLA of the person typically relates to acquisition of knowledge and skills residing outside the organizational, work-related domain. For example, the PLA of a person can range from learning a new language to mastering stock market tips and tricks to become a smart investor.

However, the distinction between personal and professional learning agendas does not deny the possibility of overlaps between the two agendas. For example, though the need to learn a new language may figure on the PLA of a working professional, the beneficiary of the learning can also be the employing organization. Benefits accruing from the PLA of a professional to the organization may or may not be immediately apparent, but there is no denying the possibility that certain PLA element of a professional can be as much part of the organizational learning agenda. Therefore, it is important for corporations to take a holistic view of the learning agendas of their professionals.

But, notwithstanding the professional or personal nature of a learning agenda, the possible overlap between the two agendas, and the organizational commitment to a holistic view of learning, the crux of the problem is that the hectic schedules of professionals leave them with little time to pursue their learning agendas.

Therefore, corporations cognizant of the learning agendas of their employees and sensitive to the issue of time deprivation should leverage the ubiquity of mobile phones for providing access to learning-ware during the periods of time when their professionals are not gainfully engaged, or learner downtime. For example, home-office commute or office-client site commute time typically goes underutilized because there is no access to learning material on the go. But, if mobile access to learning resources can be enabled during such times, employees will be able to plug such “holes in time” with short bursts of episodic learning.

Along with time deprivation, time-to-competency of new hires and people moving to new roles is another critical issue in the corporate learning environment. While managers do not doubt the role of training in getting employees started, their belief that the actual learning happens on-the-job belies their confidence in learning resources. In a way, this underlines the inadequacies in the current learning resources, which, in turn, result in poor returns on the learning time. Such sub-optimal transference of knowledge and skills manifests in a low throughput at the workplace. Therefore, with the intent of achieving efficient internalization of knowledge and skills, corporations are focusing on practice-based power learning.

Further, with the intent of optimizing the transference of knowledge and skills to corporate learners, it is equally important to understand the predominant learning style in the corporate environment and seek opportunities to use that learning style to propagate learning. In this context, it is important to analyze David Kolb's Learning Styles Inventory (LSI).

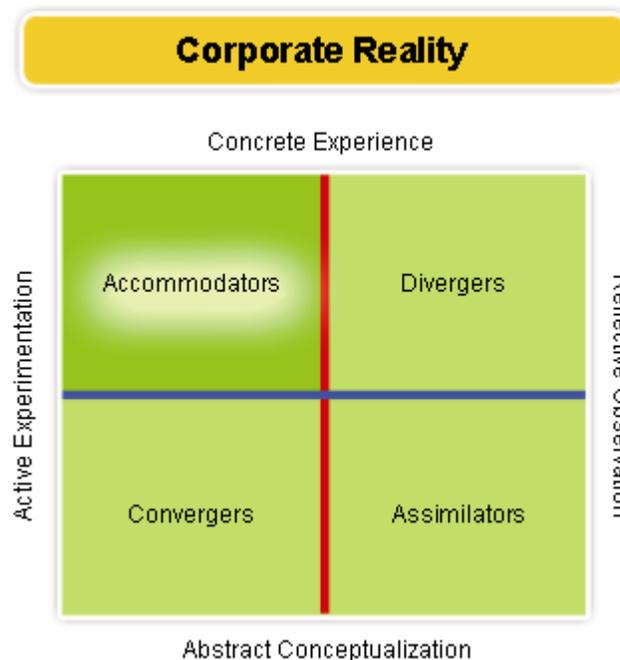


Figure 2

Researches indicate that computer-based learning is relatively more effective with the learning style of Convergers, who occupy the Abstract Conceptualization – Active Experimentation quadrant. In this context, it is important to note that managers, with their pronounced hands-on approach to learning, typically reside in the accommodators' quadrant.

The fact that the Concrete Experience and Active Experimentation axes form the accommodators' quadrant suggests a strong bias in favor of practical, active learning by managers. By extending the learning-by-doing paradigm, it is reasonable to conclude that managers prefer working with real objects and situations, and therefore, the ubiquity and portability of mobile devices can be leveraged to deliver power learning that is practical and on the spot, allowing corporate managers the opportunity to learn by manipulating real objects.

Power learning and episodic learning

Before delving into the role of mobile devices in delivering practice-based power learning in corporations, it is important to look at the way practice is enabled in other forms of learning interventions. In the eLearning model, typically simulations are favored to provide learners with the opportunity to apply their learning. In this model, the advantage for the learner is the guidance that accompanies every step. However, the downside of a simulation-based practice is the lack of opportunity to practice on real life objects or in real life situations. It is important to appreciate the simulation-real life disconnect because objects or situations may be very different outside of a simulated environment. Not surprisingly, therefore, the focus of problem-based learning is to build problem-solving capabilities because problems rarely replicate in real life as visualized in the courseware.

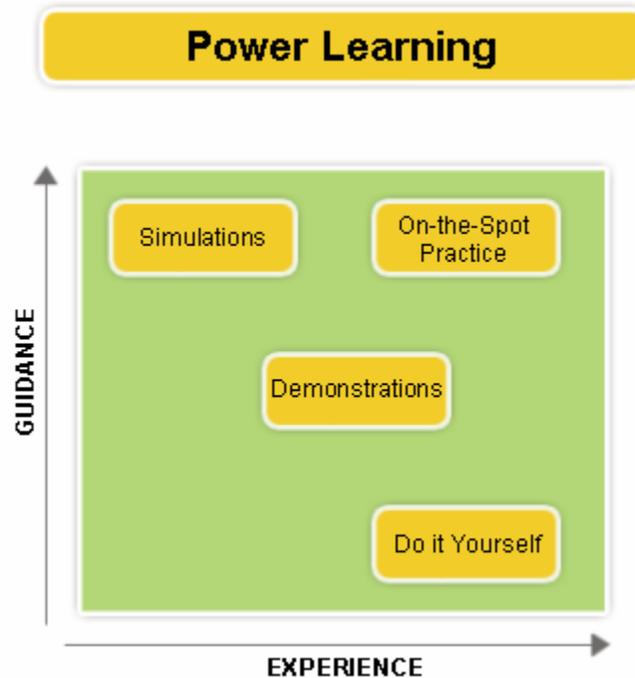


Figure 3

At the other end of the practice spectrum is the Do-it-Yourself (DIY) model where learners actually learn through practice on real life objects, or in real life situations. The advantage of the DIY model of course is the opportunity to practice on real objects; there is no simulation of the actual object. But the flipside of the DIY model is the loss of guidance that the eLearning model offers.

Therefore, the critical issue in delivering power learning is the integration of guided practice into live situations, particularly in the case of non-office based mobile workers such as field technicians, and enabling the transfer of skills being learned to contexts that learners can appreciate. In this context, the ubiquitous mobile device can be leveraged to deliver practice-based power learning, which is interlaced with guidance, on the spot.

From this, it emerges that On-the-Spot (OTS) is an important mobile learning instructional construct that corporations can employ to develop and deliver training to their managers and in-field employees. The advantage it offers upfront is that the OTS instructional

paradigm fits the learning-by-doing model typically favored by managers. Next, mobile devices enabled OTS instructional model has the potential to bridge the learner-practitioner divide because employees will learn by being hands-on with real tasks. Further, the transfer of skill is likely to be more efficient because the DIY experience can be tightly coupled with guidance.

In addition to OTS learning, mobile devices are obviously well suited to enable on-the-move access to learning resources, which will help working professionals to plug “holes in time” with learning. But the more important thing here is that the design of learning resources intended for use on the go must be informed by considerations that facilitate episodic, intermittent learning. For example, an important design consideration is that a learning module that is designed for mobile access must be short enough to plug “holes in time.” Then, learning resources intended for use on the move should be designed to handle distractions and interruptions and should enable multitasking, or pursuit of learning along with performance of regular routine tasks. In fact, with learning-ware designed for multitasking, working professionals will find the much-needed time to pursue their learning agendas without interfering with their daily schedules.

Based on the multitasking requirement of mobile courseware users, an important design consideration is hands-free, auditory interface with learning resources for which the audio capability of mobile devices can be exploited. However, there are certain challenges in audio learning.

For example, compared to reading, which happens in blocks, audio learning is time bound because the time that is needed to go through an audio course is defined by the duration of the audio file. For example, a 10-minute mobile lesson will require 10 minutes of the learner’s time to complete the lesson. Secondly, navigation is an issue with audio learning because it is

typically designed for linear perusal. In comparison to reading, where readers can intelligently skip, non-linear navigation through an audio file is relatively less intuitive. Thirdly, looking for particular information in an audio file is cumbersome and, therefore, audio courses have inefficient, or rather no, recall mechanisms.

Instructional constructs

The mobile learning instructional constructs address the challenges in delivering engaging auditory learning within short spans, and tackle issues such as inefficient recall capability. For example, the audio summary instructional construct addresses the issue of poor recall mechanisms in audio courses and this is a handy post-instructional memory aid. Some other useful auditory instructional constructs that enable engaging mobile learning are:

- Multimedia – Uses sound effects, rhyme, images, music to deliver enriched audio learning
- Enacted examples: Leverages the potential of audio drama to deliver scenario based learning
- On – the – Spot: Blends the advantage of guided simulations with the do-it-yourself experience
- Thin slicing: Juxtaposes snapshots of a multifaceted concept to give a peek at the expanse of the concept
- Print-n-Learn: Interlaces audio courses with print artifacts such as engineering diagrams and graphs
- Job Jackets – Provides opportunity to tag context for increased contextualization
- Audio Summary - Addresses post-instructional retention needs of learners
- Interview: Enables informal learning with radio-style talk shows with experts

- Case Story - Illustrates a learning goal by using real life examples or scenarios
- Reflection Questions – Triggers out-of-the-box thinking and application of learning

The linear delivery of a typical audio course and the short duration of a mobile lesson underline the need for instructional constructs that facilitate effective learning in short modules, attempt to compensate for the absence the instructor in the online medium, and peg mobile learning a few notches above plain podcasts.

Conclusion

In a business environment, mobile learning occupies a unique place because it empowers corporations to reach out to its employees unobtrusively by interweaving learning with other everyday activities. Further, it has an important role to play in realizing a seamless, pervasive corporate learning environment that can go a long way in facilitating participation of working professionals in the learning process.

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Table 1

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Figure Captions

Figure 1. Challenges in the Corporate Learning Environment

Figure 2. Kolb's Learning Styles

Figure 3. On-the-Spot Practice-based Learning