

## HAVE YOU LEARNT YOUR LESSON?

Wan Maimun Wan Abdullah<sup>1</sup> and Roznita Othman<sup>2</sup>

<sup>1</sup>*Khalid Ahmad Architects*

*University Technology Malaysia, UTM Skudai, Johor, Malaysia*

<sup>2</sup>*Public Works Department, Kuala Lumpur, Malaysia*

*wmaimun@yahoo.com*

### ABSTRACT

A learning organization is one that is continually expanding its capacity to create its own future. Such organization encourages and is continually engaged in the process of learning, communicate their learning to other staff and the knowledge that is being accumulated is embodied within the organization. The organization adopts a learning mentality where initiatives are taken to act upon lessons learnt or new ideas and knowledge that are then shared throughout the organization. Experience and lessons learnt from past projects are captured, documented and transferred to influence the outcome of future projects to ensure no repetition of past mistakes, to compare the most effective problem solving mechanisms and to reduce project risks. The systematic retention of project experience requires a mechanism or process to be set-up within the organization. Although most organizations are aware of the benefit of lessons learnt, there is an apparent lack of interest and mechanism to document such experience. The reasons for this apparent lack of interest and mechanism are numerous. These includes complex process, insufficient time, no motivation, lack of standard project review methods, not seen to be useful, error in interpreting lessons learnt, difficulty in understanding what went wrong and why, discerning the easy reasons from the hard non-intuitive behaviors, deciphering the simple reflection into lessons learnt and establishing the chains of causality. There are various methods of capturing lessons learnt and creating a learning organization that include conducting end of project reviews, project debriefing workshops, post-failure review, mapping technique to show the chains of causality, keeping simple lessons-learned files and case studies, documenting reasons for variances and corrective actions, project history retrieval and analysis system, and facilitated group discussion.

Keywords: Knowledge management, Lessons learnt, and Learning organization,

## 1. INTRODUCTION

Learning theorist Senge (1990), an author who have been most quoted by others on the subject of learning organization define learning organization as being one that is continually expanding its capacity to create its own future. Ayas (1996) describes learning organization as an organization that encourages and is continually engaged in the process of learning, communicate their learning to other staff and the knowledge that is being accumulated is embodied within the organization. George and Jones (1999) highlight the importance of an organization adopting a learning mentality where initiatives are taken to act upon lesson learnt or new ideas and knowledge that are then shared throughout the organization.

Cooke-Davies (2002) describes learning organization as an effective means that combines explicit knowledge with tacit knowledge in a way that encourages people to learn and to embed that learning into continuous improvement of project management processes and practices. Dai and Wells (2004) describe the term as transferring of lessons that could be learn from past projects to influence the outcome of future projects. Senge (1990) highlights five essential organizational behaviors that are key to achieving a learning organization that is encourage high self-efficacy,

develop schemas to understand work activities, encourage learning in groups, communicate a shared vision for the organization, and encourage system thinking.

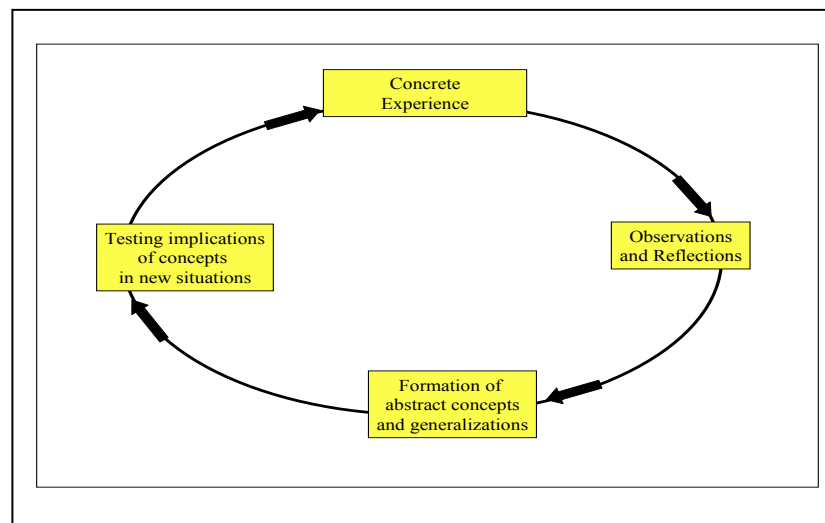
## 2. LEARNING FROM EXPERIENCE

The necessity of learning through experience is to share the tacit knowledge embedded in the personnel involved in projects and adapt the experience as best practice (Carrillo et al, 2004). Even in failure, there will always be lessons to be learnt (Volckmann and Knutson, 2001). Turner et al (2003) highlight the importance of experience, even bad experience, by stating, 'Experience is the raw material of learning and knowledge creation'. And these experiences are to ensure no repetition of past mistakes that cause project to fail (Forsberg et al, 2000), and for the organization to compare the most effective problem solving mechanisms and to reduce project risks as mishaps, mistakes and pitfalls could be avoided (Schindler and Eppler, 2003). As described by Longman and Mullins (2004), every project is a stage set for learning, advancement and building capabilities.

However, it is common that at the end of a project, the personnel involved with the project either left the company or assigned to other projects and the specific experience of that project will be lost. Schindler and Eppler (2003) describe this phenomenon as project or organizational amnesia. Thus, having the experience alone without capturing those lessons learnt are not enough as the organization as a whole will not benefit. Capturing both good and bad experience and documenting them as lessons learnt are one of the best post-project review techniques (Pinto and Kharbanda, 1996) and the task of capturing lessons learnt is termed as 'systematic retention of project experiences' (Schindler and Eppler, 2003).

Pinto and Kharbanda (1996) claim that organizations repeat their mistakes on projects because they did not capture the learning experience on past projects, fail to expose personnel on those lessons learned within the organization and did not encourage project team to document their experiences for future reference. A study by Love et al (2003) in the Australian construction industry reveals that most of the firms have a low to moderate learning capability. They point out that although some firms implement project reviews, others are more inclined to encourage individual learning and not organizational learning practices.

Turner, Keegan and Crawford (2003) cite the Kolb's experiential learning cycle to demonstrate the role of experience in learning as shown in Figure 1.



**Figure 1:** Kolb's experiential learning experience  
Source: Turner et al (2003)

### **3. CAPTURING LESSONS LEARNT**

To capture the lessons learnt from the experience of past project requires a mechanism or process to be set-up within the organization. Schindler and Eppler (2003) point out that there is evidently a gap between the actual experience happening and the project debriefing. This gap is due to lack of method for project-centred gathering to retain the project insights and subsequently a lack of ways of using these lessons learnt.

Although most organizations are aware of the significance and benefit of lessons learnt, there is a lack of mechanism or system to document such experience (Williams, 2003, Forsberg et al, 2000) and this mechanism or system is not integrated systematically as one of the organization knowledge base (Schindler and Eppler, 2003). This system would have helped the individual and the organization to convert tacit knowledge to explicit knowledge (Love et al, 2003). According to Ayas (1996), learning will not happen naturally and for it to occur a system is required to be instituted or put in-place. Duggan and Blayden (2001) state that the mechanism must include an interaction and knowledge sharing process that would facilitate learning across the organization. Williams (2003) summarizes the mechanism as a process involving the tasks of capturing the lessons, storing, disseminating and re-using for future projects.

#### **3.1 Lack of interest to capture lessons learnt**

Ayas (1996) explains the reason for this apparent lack is due to such mechanism being a complex process that needs to be consciously developed and managed and requires commitment and continuous financial and personnel investment. And these personnel must include those who participated in the project, thus requiring their personal involvement, time and commitment (Duggan and Blayden, 2001). Other reasons for the lack of such mechanism could be insufficient time, no motivation, lack of standard project review methods and past post-project review not seen to be helpful or useful (Turner et al, 2003), knowledgeable personnel assigned to other project and error in interpreting lessons learnt (Nasr et al, 2000). In addition, Williams (2003) points out that the complexity is also due to the difficulty in understanding what went wrong or right and why, discerning the easy reasons from the hard non-intuitive behaviors, deciphering the simple reflection into lessons learnt and establishing the chains of causality.

In the attempt to understand the barriers of the retention, management and transfer of knowledge and learning, Bresnen et al (2003) conduct a case study research on several construction firms. The finding of the study reveals that there exist social and technological barriers to the capturing and diffusion of knowledge. They postulate that the fragmented environments place a constraint in the effort to 'develop shared perspectives on innovation, knowledge and learning'. These constraints or barriers include the one-off nature of the project, discontinuities of information and resources across time and space, complex organizational division of labor between professional and other groups involved, difficulties of interpreting knowledge in a general context, tendency of avoiding revealing unconventional methods of resolving issues and communication barriers. In addition, Carrillo et al (2004) state that the main barrier is the lack of standard work process.

Busby (1999) states that even though the reviews of knowledge gained tend to be shallow with superficial remedies, misleading assumptions and event specifics, capturing these lessons of past projects is a necessity. It goes beyond the boundaries of the needs of future projects but even more so for the continuous improvement and subsequently sustaining the success of the organization (Ayas, 1996). Sense and Antoni (2003) add that the culture of learning through experience should extent to the whole organization and for the organization to become a learning organization not only as a competitive advantage over others but also for its long-term survival.

### 3.2 Methods to capture lessons learnt

There are various methods of capturing lessons learnt and creating a learning organization. This include conducting end of project reviews to capture experience (Turner et al, 2003), project debriefing workshops (Schindler and Eppler, 2003) and even conducting post-failure review (Pinto and Kharbanda, 1996). Other methods include mapping technique showing the chains of causality that enable to identify the lessons from the projects (Williams, 2003), keeping simple lessons-learned files and case studies (Kerzner, 2000) and documenting reasons for variances and corrective actions (Project Management Institute, 2004) and using a project history retrieval and analysis system (Leo, 2002). Duggan and Blayden (2001) develop a five-stage strategy-based learning through a facilitated group discussion process. The stages of the learning process are: (1) Setting the boundaries and context, (2) Providing a means to capture the experience and intent, (3) Learning from the experience (4) Facilitated group discussion or workshop and (5) Putting lesson learnt to practice.

Williams (2003) review on the literature reveals various processes postulated by other researchers. This include conducting project post-mortems, record of lessons learnt at the event-level and the project-level, setting up a Post-Project Appraisal unit asking ‘what happened’ questions, and ‘Learning Histories’ a six-stage process to identify lessons from experience. Sarshar et al (2000) develop a diagnostic tool which they called Standardized Process Improvement for Construction Enterprises (SPICE) that comprise a stepwise improvement framework that initially capture the successful practices of earlier projects within the organization, standardizing such practice into a process and continuously improving the process.

### 4.0 CASE STUDY

Several case studies were carried out to compare the system used by various organizations to capture lessons learnt from past experiences. These case studies include organizations in the public sector and private sector. It is hoped that the study would assist organizations to create their own system and mechanism to administer their organizational knowledge to assist them for future endeavor.

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