

WORKPLACE LEARNING AND ITS IMPACT TO PHYSICAL ENVIRONMENT

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Keywords : Workplace Learning, Learning Style, Office Environment, Employees, Organization

1.0 Introduction

The Herzberg's Two-Factor Theory indicates that employees' motivation towards their jobs caused by two factors in the workplace in which they are either dissatisfiers (hygiene factors) or satisfiers (motivators). When an organization perform their activities to achieve their business goal, the hygiene factors which refer to the needs towards job, contribute to employee dissatisfaction if they are not met while the motivators (physical affordance – happy when provided) increase satisfaction when they are implemented [1]. Physical work environment (PWE) contributes to either dissatisfier or satisfier towards job execution, organizational learning and many other objectives of an organization and it also reflects employees' productivity, which means that it increases satisfaction when it is met and contributes dissatisfaction when not carry out. To summarize, it is clear that there is relations between physical work environment and employees' satisfaction and productivity. Learning culture in a workplace can be seen as one strategy to boost employees' enthusiasm towards their job. It's been implemented officially or some organization might not notice it. To make learning culture successful, physical environment needs to be highly considered. Therefore, this paper attempts to give an overview of the office physical environment impact accounted by workplace learning. Although there are a number of studies in workplace learning, which related to the approach and style of learning in the organization, however, most of these studies did not relate the implication of office physical environment to support the cognitive approach in the workplace.

2.0 Workplace Learning

Research regarding 'workplace learning' has been debated since at least the 1970s. Numerous methods and a variety of interventions have been reported in the research report and the extensive literature to enhance the quality of learning culture from one employee to another or to all other parts of the organization. Though many argue whether the work and learning can coalesce, learning in the workplace creates better opportunity for novice employees to gain a knowledge, skills

and acquiring expertise [2]. On the other hand, 'workplace learning' acquired a broad variety of different meanings. Some people from across disciplines employ the same terminology when meaning something quite different [3].

Learning within an organization could foster for a long term of organization survival thus, sustain a competitive advantage for rival companies [4], especially for a knowledge worker who is a consummate master of knowledge creativity, strive to improve performance in order to create possibilities in the pressing business deals. Moreover, workplace learning also can create an empowering environment when one is faced with organizational change.

Coalescence of work and learning in the workplace driven towards perpetrating organizational culture such as a lifelong learning [5], knowledge sharing and many more. Lifelong learning confers high value on work satisfaction. Henceforth, one will then work as much more than paid employment and contribute to personal development as well as the increase of meta-cognitive, learning direction and self-confidence of employees. The notion of lifelong learning concentrates on a process of learning, not to an acquisition of products such as knowledge, skills, attitudes, values and many others.

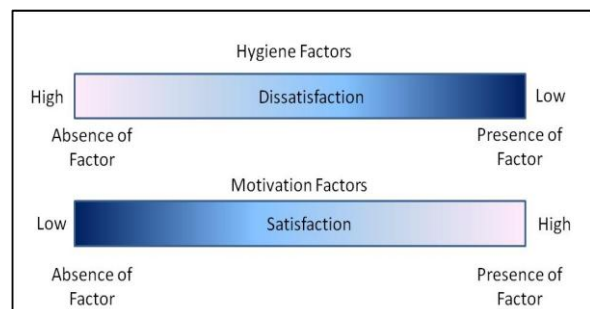


Figure 1: Herzberg's Two-Factor Theory

Source: <http://quizlet.com/mgmt301>

In this paper, the focus on workplace learning divided into two aspects. First, how employees opt for engaging in learning activities and work; and second, how the physical workplace affords opportunities for learning [2], [4–8]. The first focus was enlightening the method, style and approaches of learning in the

workplace. The second concentrates on appropriate development and implementation of workplace environments to take place so that high performance could be accomplished. Workplace affordance such as invitational physical environments, supported tools, gadgets and ICT utilities, procedure, access and preference towards the conditions in the work environment have been declared but not much discussed in previous research.

2.1 Learning approach, method and style

The workplace learning approaches, method and style broadly discussed in the research literature. According to Nielsen [9], learning approach can be accomplished in two ways, vertical and horizontal approach. Vertical approach focuses on top-down approach, and the horizontal approach is through collaborative interaction among workmates and participatory arrangements. Apprenticeship and gurus [2], are one of examples of vertical perspective. A conception of learning such as apprenticeship – like a practical training for a novice to acquire knowledge and skills for the job assigned; and gurus – the one who possessed specialized knowledge. On the other hand, colleagues work together for a project or to try to solve a common problem is another side of horizontal approach.

Suitable method could be adopted and customized according to employees' learning behavior and character. For example, deep and strategic learner – one who normally learns by actively engage with study material and use learning strategies to attain their objectives, are necessary to have greater need for training, on the other hand, surface learner – who always rely on note memorization rather than understand the whole story, is vice-versa [8]. However, learning approach, style and method are not the one that needs to be in stereotype mode. Multiple learning styles could be formally adopted in an organization. From the extensive literature on workplace learning, the style of learning can be classified into four broad categories [2], [6], [10]:

- 1) *Formal Learning*. Defined as structured learning that took place in formal classroom-based settings with the presence of an instructor. The modul of learning normally is organized in a package and outside of working routine and environment.
- 2) *Informal Learning*. Defined as predominantly unstructured learning, which integrated with work and daily working routine and environment. Learn acquisition normally with the help of workmates, through observational process and workplace supervision.
- 3) *Intentional Learning*. Defined as a guided learning

that takes place in formal classroom-based and working settings. Various methods have been adopted such as mentoring system, apprenticeship and on-the-job training.

- 4) *Incidental Learning*. Defined as learning instances and occurs in an unintended activity. It normally occurs in a situation such as trial-and-error experimentation, task accomplishment or interpersonal interaction that generally requires a concentrated environment which impulsively increases particular knowledge, skills and understanding.

3. Physical Environment affecting learning

The physical environment in the workplace can be described into two broad aspects; i) design features from architectural contexts such as layout, interior and exterior characteristics and appearance, furniture and equipment, personal individual and shared workspace, color, aesthetic value, ergonomic design, etc. and ii) associated environmental conditions such as thermal comfort, visual comfort, noise and air movement. The process of learning in the workplace is as well giving an impact to the physical work environment. However, on the opposite causation, physical work environment may also elicit as facilitating or impeding the success of the highest learning interventions [11]. For instance, workplace that support for cognitive function for a knowledge worker may require supportive workplace design that might be able to stimulate knowledge sharing and thus, is worth to invest.

This paper attempts to link workplace learning and working preference conditions, which concentrate on the physical environment and human behavior. From extensive literature review, many papers highlighted that desirable learning surroundings may require flexible physical workplace, while human behavior in this case refers to communication and interaction among employees, which is the potential medium to create opportunities of learning.

3.1 Flexible Physical Work Environment (PWE)

Flexibility of the physical work environment (PWE) will possess key features that cater for the not only functional need of the organization but also the preference of the users towards learning environment, thus influencing employees' job performance and satisfaction. Flexibility in this context referred to the adaptability of PWE to suit distinctive type of learners, capability to comply different type of learning condition, compatibility to customize of all aspects of PWE in facilitating learning environment, the controllability of the PWE by

providing users to maximize their use of facilities and service provided and sustainability aspects where efficiency and productivity of employees continuously boost at all times.

Flexible PWE should comply to four types of learning styles in the workplace. Design features focusing on space should at least contribute to the accommodation for individual and shared workspace [12], [13] to gain satisfaction level towards learning and job assigned. Research conducted by Kupritz [13] and Appel-Meulenbroek [12] revealed that physical enclosure such as cubicles or enclosed room convenience for those who desire accommodation for concentrated and distraction-free solo work, also well-situated for a training-modul-learning and undistracted group work. However, a co-presence condition (with the presence of other employees) in which an open layout or shared workspace is preferable for informal and intentional learning where it is near and easily find co-worker for cognitive learning through observational process, supervision and on-the-job training.

The process of learning in the workplace precipitates employees' reaction towards their surroundings. Distraction made from office environment sometimes results in the consequences of the performance and satisfaction towards job execution. Lighting, noise, thermal comfort and air quality are four components cause effect to both physically and psychologically. For instance, noise in the workplace such as sound from equipment, tools and people's conversation may prevent employees concentrating on their learning as well as their jobs. However, when employees conducted a simple task in an office, the effect of noise background impairs their individual performance. On the contrary, when they need to conduct a complex task in which high concentration is a must, acoustical privacy is needed for an elevated performance. As for thermal comfort, research reveals that employees control on indoor climate strongly influences the satisfaction with thermal indoor conditions both in the heat and cold season [14], while the visual comfort in which the control of light brightness produced from natural and artificial light upon the workplace need to be adjusted for employees to carry out varieties of tasks thus, giving impact on the effectiveness of the learning environment.

3.2 Medium for Transfer of Learning

Other than physical environment, many researches on workplace learning also focus on communication as a medium to transfer the learning and make the process successful. Knowledge sharing and transfer of learning could be a trigger to the employees' performance and satisfaction towards job assigned. Thus, both indeed reflect the physical environment of

workplace especially space allocation and function of office to make the process run smooth. It is not the physical environment only that has to comply with the culture of workplace learning, but both have to be in parallel to achieve organization objectives. Knowledge sharing is defined as the possible acceptance of information from explicit and tacit knowledge's activities and is shared among employee or an organization [12], whilst transfer of learning is defined as an employee learn behaviors, skills and knowledge in one context and apply them in a new situation [9].

Communication is a process by which individuals share the meaning of transmitted information through ICT tools or face-to-face transactional information. Communication encourages knowledge sharing among employees and it become more effective when the office layout directly reflects the required flow of information [9], [11], [15], . Moreover, effective communication educates and motivates employees to come out with new strategies and inspiration towards their job assigned.

What contribution will physical work environment give towards communication in workplace learning? From negative perspectives, hierarchical layout may impede communication effectiveness due to lack of co-presence of 'mentor' when referred to vertical approach. In contrary, horizontal approach of learning sometimes needs a serendipitous setting such as refreshment area or café to help to bring people together outside of the formal workspace in execution of knowledge transfer from one to another, thereby making this knowledge applicable to be used when needed.

Innovative ICT technology intervention helps a lot in producing better communication, henceforth, expedite the process of learning transfer within organizations. Development in internal and external social network, network of an activity system, the use of highly and memorable visual representation and documentation [16], enterprise-wide e-learning as a tool for training cum learning [17] and many more, are some solutions in interpreting the innovative way to learning and communicate. Though it is many solutions provided, an organization must attend to the needs and abilities of the employees in which compatible the ICT tools with learning style.

4. Conclusion and implication.

Despite large parts of strategies, method and approach of learning in a workplace been discussed in the research field, ways of how the learning culture gives impacts towards physical environment are more seldom addressed. In recent studies, only a few researchers identify the relations between the subject matter though it does not tackle the whole concept of workplace learning. Herzberg's Two Factor Theory

demonstrates the hygiene factor, refers to the needs of an organization to achieve their objectives in which specifies at workplace learning; and motivator, the preference towards learning environment (physical environment of the workplace) could convey employees' satisfaction when fulfilled.

This article has interpreted workplace learning by defining style, preference and transfer of learning. Thus, pointed out at knowledge sharing as a crucial factor and how to expedite transfer of learning within the company of physical environment, where learning is expected to be coalesced with work.

To conclude, this article is an introduction to future research on the preference of physical environments that could enhance or impede learning in the workplace. Exploration of preference will enable to better setting of physical workplace and could measure the positive and negative factors influence workplace learning.

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