

THE DESIGN FRAMEWORK OF TRAINING SYSTEM FOR PROFESSIONAL DEVELOPMENT (TASPOD)

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Abstract: The human resource training policy in any sector requires each member to be equipped with attitude, skills and knowledge through human resource development program based on competency development and continuous learning. The continuing professional development is a concerted effort to ensure educators in higher learning institutions to equip themselves with professional knowledge, skill, values and practices through in-service training program organized based on competency development, lifelong learning and career path. The deliverables of this research at the initial stage include the development of the system framework of the e-training for professional development. The system named 'Training System for Professional Development' (TaSPoD) designed as an electronic training system for educators in the higher learning institutions, with the main purpose to enhance and equip educators' competency, professionalism, knowledge, skills and practices in an effective way; utilizing the system through 3 distinct modules; the training module, the assessment module and the management module. In designing effective training product, the design of the module adapts Merrill's First Principles of Instruction. The functionality of TaSPoD is basically divided into 3 distinct components: (1) content module, (2) assessment module and (3) management module. Each of the modules will be interacting to each other where one module will equip data and information to other modules.

Keywords: Professional Development, Training System, Design and Development, Higher Learning Institution

INTRODUCTION

Educational organizations such as the higher learning institutions play a vital role in shaping the future of social and economic growth of a country. With high demand of job prospect for the market, higher learning institutions need to continuously produce high quality employees. However, most educators in higher learning institutions, come to the field of teaching with little formal professional trainings other than their field of expertise. This challenge led the institutions to provide resources and training to enhance the effectiveness of the teaching and learning processes. Training as one of the professional development affairs is perceived as a mechanism for ongoing learning lives for all components involved in the institution systems, as to empower educators' knowledge (Day & Leitch, 2007).

Research Problem

Educators do not only teach or lecture but also have other stipulated duties such as involvement in research, committees, and administrative duties. All these activities are time consuming and to achieve a proper balance will be a great challenge for educators. Thus, heavy workload has become the main obstacle that hindered them from attending training sessions. Furthermore, amid COVID-19 pandemic, which caused unprecedented disruption to most education environment, electronic training system provides the opportunities for continuous learning for educators (Shahzad, Hassan, Aremu, Hussain, & Lodhi, 2021).

The advancement of information technologies nowadays enable educators to participate in online learning process without having to attend a conventional facility; as asserted by a growing number of researches in the recent years (Batalla-Busquets & Maria-Jesus Martinez-Arguelles, 2014; Ismail, Zaharudin, Hashim, & Ariffin, 2020; Park, Son, & Kim, 2012; Wijakkanalan, Wijakkanalan, Suwannoi, & Boonrawd, 2013). This research will be focusing on the development of the electronic training system, which allows educators to obtain a personal learning experience enhancing their professional development.

The deliverables of this research at the initial stage include the development of the system framework of the electronic training (e-training) for professional development. The system named as 'Training System for Professional Development' (TaSPoD) will be an online training system for educators in the higher learning institutions. The main purpose of the system is to enhance and equip educators' competency, professionalisms, knowledge, skills and practices in an effective way.

Research Significance

This research is highly significant in establishing the professional development on higher learning institutions. The design and development of TaSPoD will assist the concern users: institution, administration, experts and trainees to integrate the e-training into their professional development plan. Thus, the needs and concerns perceived as barriers that possible to hinder self-development of educators, will be addressed. The findings of this study are significant for future design and development of e-training system that could intensify the professional development activities for educators in higher learning institutions.

LITERATURE REVIEW

Professional development is an effective way of continuously improving, updating and enhancing educators' knowledge and skills (Mohammed Ageel, 2011) and also a way for educators' to be involved in sharing knowledge with one another (Alharbi, 2011). Guskey argued that improvement effort in education will not succeeded without professional development (Guskey, 2009). Therefore, regulated and structured professional development program should be based on identified needs to achieve basic competency (Mgijima, 2014).

The advances in information technologies coupled with the continued changes in the educational structure have created new paradigms for higher learning institutions to adopt a flexible comprehensive e-training for professional development. E-training also referred as web-based training or online training, which requires the use of electronic medium, consists of modular courses, available over the web, at anytime and anywhere the users have access to the Internet. Thus, many organizations hoping to reap the benefit of e-training to meet their immediate and strategic needs for a flexible and well-trained workforce. Development of human resource is also more effective when implementing e-training, especially when it involves the millennial generation (Wolor, Solikhah, Fidhyallah, & Lestari, 2020).

The design and development of an e-training system as in this research will therefore be used to prevail the hitches that might hinder professional development to be conducted successfully, which will be addressed in the most effective manner, in order to derive all the benefits of electronic environment. In this project, TaSPoD will be providing e-training courses as a tool for professional development program that could be taken anytime, anywhere as long as users are equipped with either a laptop or PC with Internet connection.

METHOD

TaSPoD is the abbreviation of "Training System for Professional Development"; an electronic training system that will be used as a tool for continuing professional development program among higher learning institutions educators. The research utilized qualitative design methodology, which involved interview protocol with the experts to gain comprehensive data.

Interview

Interview protocols were conducted to probe the needs of electronic training, in the process of designing TaSPoD. The interviews were conducted on the experts (instructional designers, system analysts and system developers) to explicate their needs on electronic training from different perspective (Ramoutar-Bhawan, 2013). The interview questions were asked in order to gain insight and views on how they perceived electronic training.

Training content for each professional development program will be designed based on training need assessment that is carried out which imply the adoption of "analysis" component in the research.

Table 1 below summarize the first phase of the research, to design the conceptual framework for TaSPoD.

Table 1
Research Matrix

Research Objective	Research Question	Instrument	Research Outcome
To identify training needs for designing electronic training system	What are the training needs for end-users in electronic training system?	Semi-structured Interview Protocol	End-users requirements for designing an electronic training system.

The Design of Framework

Kolb (1984) defines learning as “the process whereby knowledge is created through the transformation of experience and knowledge results from the combination of grasping and transforming experience”. Kolb’s Experiential Learning Theory (as shown in Figure 1) represents two dialectical modes for grasping experience: Concrete Experience (CE) and Abstract Conceptualization (AC); and two dialectical modes for transforming experience: Reflective Observation (RO) and Active Experimentation (AE). This process is portrayed as an idealized learning cycle where the learner experiences, reflects, thinks and acts, in a recursive process that is responsive to the learning situation and what is being learned.

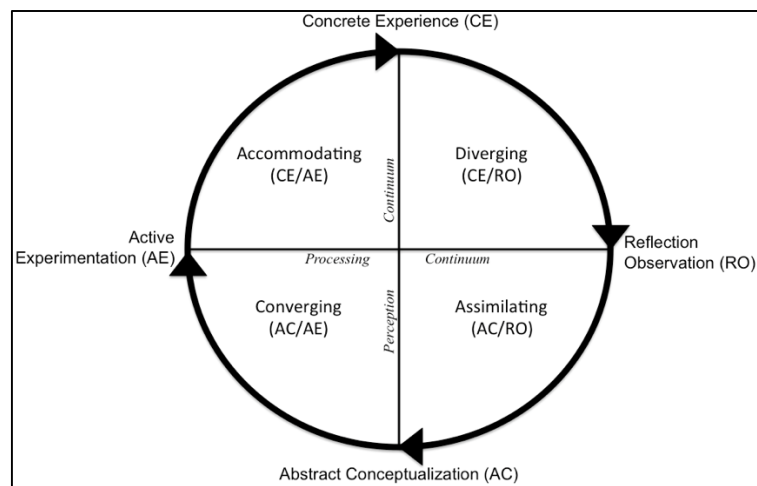


Figure 1: Kolb' Learning Cycle

However, there are critiques saying learning goals are not clearly defining in any of the learning cycle and that problem might arise as number of processes can occur at once and stages can be jumped or missed out completely. In order to overcome these shortcomings, Merrill’s First Principles of Instruction is incorporated with the Kolb’s model.

Merrill’s First Principles of Instruction consist of four distinct phases: [1] activation of prior experience, [2] demonstration of skills, [3] application of skills and [4] integration of these skills into real-world activities (Merrill, 2002); as shown in Figure 2 below.

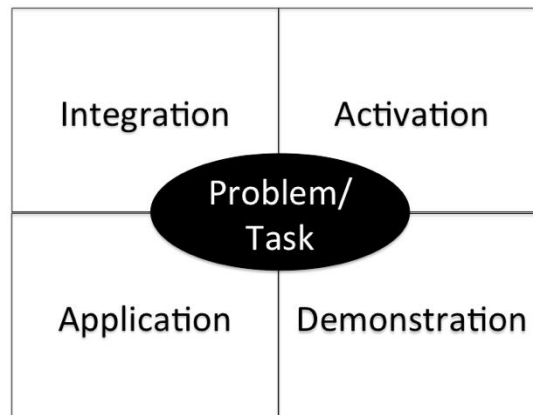


Figure 2: Merrill's First Principles Instruction

Those four phases implement the followings five underlying principles (Merrill, Barclay, & Schaak, 2008):

- i. Task-centered approach: Learning is promoted when learners are engaged in a task-centered approach, which includes demonstration and application of component skills. A task-centered approach is enhanced when learners undertake a progression of whole tasks.
- ii. Activation phase: Learning is promoted when relevant previous experience is activated by being directed to recall, describe, or demonstrate relevant prior knowledge or experience. Activation is enhanced when learners recall or acquire a structure for organizing the new knowledge.
- iii. Demonstration phase: Learning is promoted when the instruction demonstrates what is to be learned rather than merely telling information about what is to be learned. Demonstrations are enhanced when learners receive guidance that relates instances to generalities. Demonstrations are enhanced when learners observe media relevant to the content.
- iv. Application phase: Learning is promoted when learners are required to use their new knowledge or skill to solve problems that is consistent with the type of content being taught. Application is effective only when learners receive intrinsic or corrective feedback. Application is enhanced when learners are coached and when this coaching is gradually withdrawn for each subsequent task.
- v. Integration phase: Learning is promoted when learners are encouraged to integrate (transfer) the new knowledge or skill into their everyday life by being directed to reflect on, discuss, or defend their new knowledge or skill. Integration is enhanced when learners create, invent, or extrapolate personal ways to use their new knowledge or skill to situations in their world. Integration is enhanced when learners publicly demonstrate their new knowledge or skill.

Merrill (2008) synthesized other learning principles such as Principles for Multimedia Learning by Clark and Mayer and Principles of E-learning by Michael Allen having common principles and close correspondence to the First Principles of Instructions. Thus, in order to design an effective, efficient, and engaging instructions, First Principles of Instructions provides a framework for organizing teaching and learning activities in a way that is easy to implement and beneficial to learners. To further intensify the effectiveness of an electronic training system, instructional methods immerse seamlessly with learning styles, alongside with the TaSPoD's components.

FINDINGS AND DISCUSSIONS

In designing effective training product, the proposed conceptual framework for the development of TaSPoD is named as the 'TaSPoD Conceptual Framework'. The main purpose of the framework is to enhance educators' competency, professionalisms, skills and knowledge. The framework is primarily developed to facilitate the use of electronic training environments across educators in the higher learning institutions, as stated by Kolb "*Learning is the process whereby knowledge is created through the transformation of experience*" (Kolb, 1984).

From the interview conducted, all the experts point up that having electronic training system would bring more benefits to user, as the flexibility of accessing to the system at anytime and anywhere. Educators are free to do the learning process at their convenience. Expert 1 stated,

“... many of the participants are faculty members who are primarily occupies with teaching; having tight schedule and not flexible to attend face-to-face training. Therefore participants can do their own learning at their convenience – at any time of their preferences..”

Thus, they would stay competitive and increase their productivity subsequently. Expert 2 further mentioned that this feature would entitle more educators to register in any particular single training at one time.

“By using e-training, we can cover and manage to roll out training to most of the faculty members without having them to re-schedule their classes.”

On the other hand, the experts listed five components that are essential to be considered when designing electronic training which are audience, course structure, page design, content engagement and usability. In addition to the importance of being flexible to adapt to changes in the content design. The concern is stated by Expert 3,

“... the most important feature as many e-training implementations using complex or compiled technology is difficult to adapt to change which makes the system becoming obsolete.”

TaSPoD Conceptual Framework adapts Kolb’s Experiential Learning Theory assimilated with Merrill’s First Principles of Instruction. TaSPoD Conceptual Framework presented a viewpoint on effective teaching as well as assisting learners develop higher order thinking skills, which result in positive technology acceptance. It is the basic method to instructional design that improves the learning and teaching process, as shown in Figure 3 below.

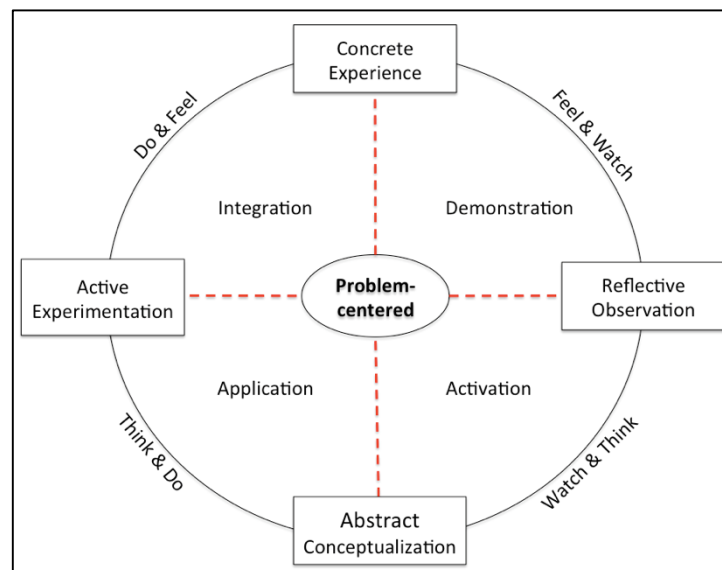


Figure 3: TaSPoD Conceptual Framework

CONCLUSION

Considering the current COVID-19 pandemic situation, academic institutions are eventually shifting most of the educational activities to the online learning format. Exploiting TaSPoD as an online training platform is a creative and innovative way for educators’ to engage in their professional development activities, at the same time staying committed and motivated during the pandemic situation.

By using TaSPoD, the continuing development program can be conducted interactively online and can be accessed anywhere. TaSPoD furnished higher learning educators with an online training system for enhancing their skill and knowledge. The interactive design of the online training system according to the present invention allows the educators to virtually interact with the trainers through the links of forum, notes, announcement, notification, activity, modules,

online video and others. In addition, the contents of online training program can be improved according to the requirements of continuing development program for educators and the cost in terms of money and labor for the program can be reduced.

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