DEVELOPMENT OF A TRAINING MODEL BASED ON ACTION LEARNING AND KNOWLEDGE MANAGEMENT APPROACHES TO ENHANCE PERFORMANCE COMPETENCY FOR HIGHWAY DISTRICT OFFICERS IN THE DEPARTMENT OF HIGHWAYS

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Abstract: This research aims to develop a training model based on action learning and knowledge management to enhanced performance competency for district officers in the department of highways. The research has studied the principles, concepts and research on Action Learning and Knowledge Management. The study results will show the two learning processes can be integrated.

Keywords: Training Model, Action Learning, Knowledge Management

Background

The influence of globalization and information technology has resulted in rapid changes in economics, society, technology, culture and the environment. These changes affect both individuals and society. This has resulted in society becoming more knowledge-based and economic-based. Developing a knowledge-based society presents important challenges for learning organizations to succeed. To do this requires improved means of communicating and using knowledge for learning.

Knowledge is a critical asset in every learning organization. Because learning is both a product of knowledge and its source, a learning organization should recognize that knowledge and learning are inextricably linked and should be managed accordingly. People must change their previously held beliefs about learning because the need for learning is changing from just education in school to life-long learning everywhere. It means that education resulting from integration of formal, non-formal and informal education can lead to a continuously improving quality of life. This continuous lifelong process goes on from birth to the end of our lives beginning with learning in families, communities, schools, religious institutions, and workplaces. Learning with work groups takes place informally through the use of instructional media, mostly from people's occupations, workplaces, colleagues, touring, mass media, information technologies, their environment and nature. Adults learn from experiences and problems solving, and need continuous development of intellect, capability and integrity to allow for continuous development of quality of life. People must adapt themselves for the resulting changes in beliefs, attitudes or skills. For example, in workplaces, there are organization related learning problems. There are situations where different people with different goals and needs come into conflict. Problem solving in an organization's efforts should be a tool to improve the performance of the organization and the people within in the organization. Therefore, it is useful to have some understanding of what is meant by performance and the various methods of managing performance in organizations. The best way of doing this is through Action Learning.

Action Learning is the study of an individual's actions and experiences in order to improve performance. Groups of individuals meet on an ongoing basis as actions are implemented, learning from the implementation and making decisions. This means Action Learning is learning by doing and gaining experience through examples and repetition. Action learning in the workplace deals with real problems, working together though the issues and exploring alternatives for action. This is because the resource of highest value is the learner's own experience. Therefore, Action Learning is a process that brings together a group of people with varied levels of skills and experience to analyze actual work problems and develop action plans together. In a world of ever-increasing complexity and greater emphasis on product quality, continuous learning within organizations is needed.

Knowledge Management is another critical element necessary for improving internal organizational development. It consists of a dynamic and continuous set of processes and practices embedded in individuals and groups. Knowledge management focuses on organizational objectives such as improved performance, the sharing of work and continuous improvement of the organization. Knowledge Management of efforts within an organization can help individuals and groups share valuable organizational insights, reduce redundant

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work, reduce training time for new employees, and retain intellectual capital through lower employee turnover in an organization. Learning organizations know how best to take a learning approach towards the development of this embedded knowledge by putting in place the necessary systems for knowledge management. Therefore, the results of good knowledge management are the sharing and cycling of knowledge. It creates a continuous cycle of four integrated processes: externalization, internalization, combination, and socialization. These four knowledge processes are mutually complementary and interdependent, and therefore change according to the demands of context and sequence. Integrating Action Learning and Knowledge Management is, in essence, the development of a learning process. Because the concept of Action Learning is problem solving by learning through doing in the workplace and shared learning through team work, and Knowledge Management is involves efforts that can help individuals and groups to share valuable organizational knowledge, integrating Action Learning and Knowledge Management provides the most useful learning development. These learning processes in the workplace can be critical for competency development within an organization. Competency is a clearly stated definition of a performance area related to success in a job role. Competency development should consider the context and activities related to learning and training for employees, allowing them to be involved in their own development and the application of their development. Competency analysis provides the means of identifying the knowledge, skills, ability and behavior for the organization to fulfill its goals and objectives. To improve competency may involve just one type of knowledge, skill, ability or behavior, or it may require a combination of them all.

The Department of Highways (DOH) is the government organization that has the primary duty of developing and maintaining highways in Thailand, and therefore can directly affect people's lives and safety. When people drive on the highway, they need to feel safe and have confidence in the abilities of those in charge or providing safe roads. At present, the personnel of Department of Highways have a reduced number of highway officers, which can create a serious problem regarding the organizational knowledge of its engineers. Thus, integrating Action Learning and Knowledge Management within the DOH may be a useful method of improving performance competency.

Objectives

    1. To survey the needs of competence is for highway district officers.

    2. To develop a training model based on the Action Learning and Knowledge Management approaches to enhance performance competency for highway district officers.

    3. To test a training model based on the Action Learning and Knowledge Management approaches to enhance performance competency for highway district officers.

    4. To assess the factors and conditions of the training model based on the Action Learning and Knowledge Management approaches to enhance performance competency for highway district officers.

Variables of the Study

    1. Independent variables of the training model based on the Action Learning and Knowledge Management approaches for enhancing performance competency of highway district officers in the Department of Highways

    2. Dependent variables of the knowledge, skills and attitudes regarding the competency of district highway officers of the Department of Highways

Literature Review

For the Research on "Development of a training model based on action Learning and knowledge Management to enhance performance competency for district officers in the department of highways" ,the researchers had studied the documents, concepts, theories and relevant research , as follow:

    Action Learning is analyzed and synthesized information regarding about conceptual of Revans (1969), Weinstein. K. (1999), National Primary and Care Trust Development Programme (1969) and Archaya Ratauaborn (2004).

    Knowledge Management is analyzed and synthesized information regarding about conceptual of Turban and Aronson (2001), Peter Senge (2003), Michael Marquardt (1998), Nonaka (1998), Praporn Phasukyud (2009) and Vicharn Panich (2009).

    Then, Analyze and synthesize competencies based on job descriptions of district highway officers of the Department of Highways. There were two parts. Part 1 was core competencies resulting from an analysis and syntheses of the mission, vision, value and strategic plan of the Department of Highways. Part 2 was personnel competencies resulting from an analysis and synthesis of job standards and job descriptions.

Research Methodology

The Researcher is integrating of Action learning and Knowledge management:

1. As a results, integration in action learning and knowledge Management is 10 steps:

Step 1 Identify problem
Step 2 Identify objective/goal
Step 3 Set members of problem solving
Step 4 Analyze problem
Step 5 Identify strategic plan
Step 6 Action / Implementation
Step 7 Conclusions from problem solving and creating knowledge
Step 8 Refine knowledge
Step 9 Apply knowledge
Step 10 Manage knowledge
Step 11 Disseminate knowledge

2. As a results, analyze and synthesize of competencies based on job descriptions of district highway officers of the Department of Highways is two parts. Part 1 was core competencies resulting from an analysis and syntheses of the mission, vision, value and strategic plan of the Department of Highways. Therefore, core competencies of officers in the DOH are analytical thinking, manual development, integrated thinking, proactive public relations, engineering knowledge, change management, strategic thinking, and planning. Part 2 is personnel competencies resulting from an analysis and synthesis of job standards and job descriptions. Personnel competencies of officers of the DOH involve three groups:

a) Administration: Strategic Management, Coaching, Leadership, Techniques of problem solving and Conflict Management
b) Self-development: Techniques of time management, Techniques of work improvement, Techniques of presentation skills, Human relations, Communication and Create thinking
c) Team-development: Team working, Knowledge management and Risk management

Subjects

The subjects are highway district officers of the Department of Highways. These officers included three groups: 1) General administration officers 2) Engineer officers and 3) Technician officers.

Experimental Process

Phase 1: Survey of competencies necessary in job performance of highway district officers, of the Department of Highways as follows:

1. Stage 1: Analyze and synthesize based on job descriptions of district highway officers of the Department of highways. Competencies are two parts.

[a] Core competencies:
- Analytical thinking
- Manual development
- Integrated thinking
- Proactive public relations
- Engineering knowledge
- change management
- Strategic thinking
- planning

[b] Personnel competencies Personnel have to involve three groups:

[1] Administration:
- Strategic Management
- Coaching, Leadership
- Techniques of problem solving
- Conflict Management

[2] Self-development:
- Techniques of time management
- Techniques of work improvement
- Techniques of presentation skills
- Human relations, Communication
- Create thinking

[3] Team-development:
- Team working
- Knowledge management
- Risk management

2. Stage 2: Design and Create a questionnaire of competencies for officers in the DOH

3. Stage 3: The researcher had selected the experts to check the content validity of questionnaire. The experts have given comments and suggestion for this researcher to improve of questionnaire.

4. Stage 4: Try-out the questionnaire with sample officers in the DOH

5. Stage 5: Delivery questionnaire to officers' highway district officers of the Department of Highways

Phase 2: To develop a training model based on the Action Learning and Knowledge Management approaches to enhance performance competency for highway district officers. The Research used information from phase 1 to survey of competencies necessary in job performance of highway district officers, of the Department of Highways. In phase 2, the researcher followed the process-training model, stage 6, 7, 8 as follows:

6. Stage 6: Design and create the training model.

7. Stage 7: Set the goal of training, contents, methods, material instruction and evaluation.

8. Stage 8: The researcher had selected the experts to check the content validity of the training model. The experts have given comments and

suggestion for this researcher to improve of training model.

Phase 3: To test a training model based on the Action Learning and Knowledge Management approaches to enhance performance competency for highway district officers. The research used information from phase 2 to develop a training model. In phase 3, the researcher followed the process of test training model, stage 9, 10 as follows:

9. Stage 9: Conduct the training to officers highway district of the Department of Highways. Steps of training have 11 steps: [As a results, integrated in action learning and knowledge Management]

Step 1 Identify problem
Step 2 Identify objective/goal
Step 3 Set members of problem solving
Step 4 Analyze problem
Step 5 Identify strategic plan
Step 6 Action/Implementation
Step 7 Conclusions from problem solving
and creating knowledge
Step 8 Refine knowledge
Step 9 Apply knowledge
Step 10 Manage knowledge
Step 11 Disseminate knowledge
10. Stage 10: Evaluate the outcome of learner's.

Phase 4: To assess the factors and conditions of the training model based on the Action Learning and Knowledge Management approaches to enhance performance competency for highway district officers. The information from phase 4 is used to improve the training model stage 11 as follow:

11. Stage 11: Evaluate the training, follow up and the feedback of training model.

Methods of Data Analysis
The research included two instruments, which were contents of the training model, and one set of questionnaire about competencies, highway district officers of the Department of Highways. Both of these instruments will be gives to the each expert to be checked and evaluation the content validity by index objective congruence [IOC].

Expected Benefits
1. The development of a training model based on Action Learning and Knowledge Management approaches to enhance the performance competency of highway district officers of the Department of Highways.
2. The results of the training model for improving the competencies on job performance for district highway officer of the Department of

Highways. Competencies consisted of job related knowledge, skills and attitudes.

The Conceptual Framework
Department of Highways (DOH): The government department is responsible for construction, repair and maintenance of all highways in the country. At present, Thailand has 60,000 kilometers of regular highways.

District Highway Offices: The organization is in Department of Highways (DOH). It is responsible for repair and maintenance of all highways in the country]

(See figure in the last page)

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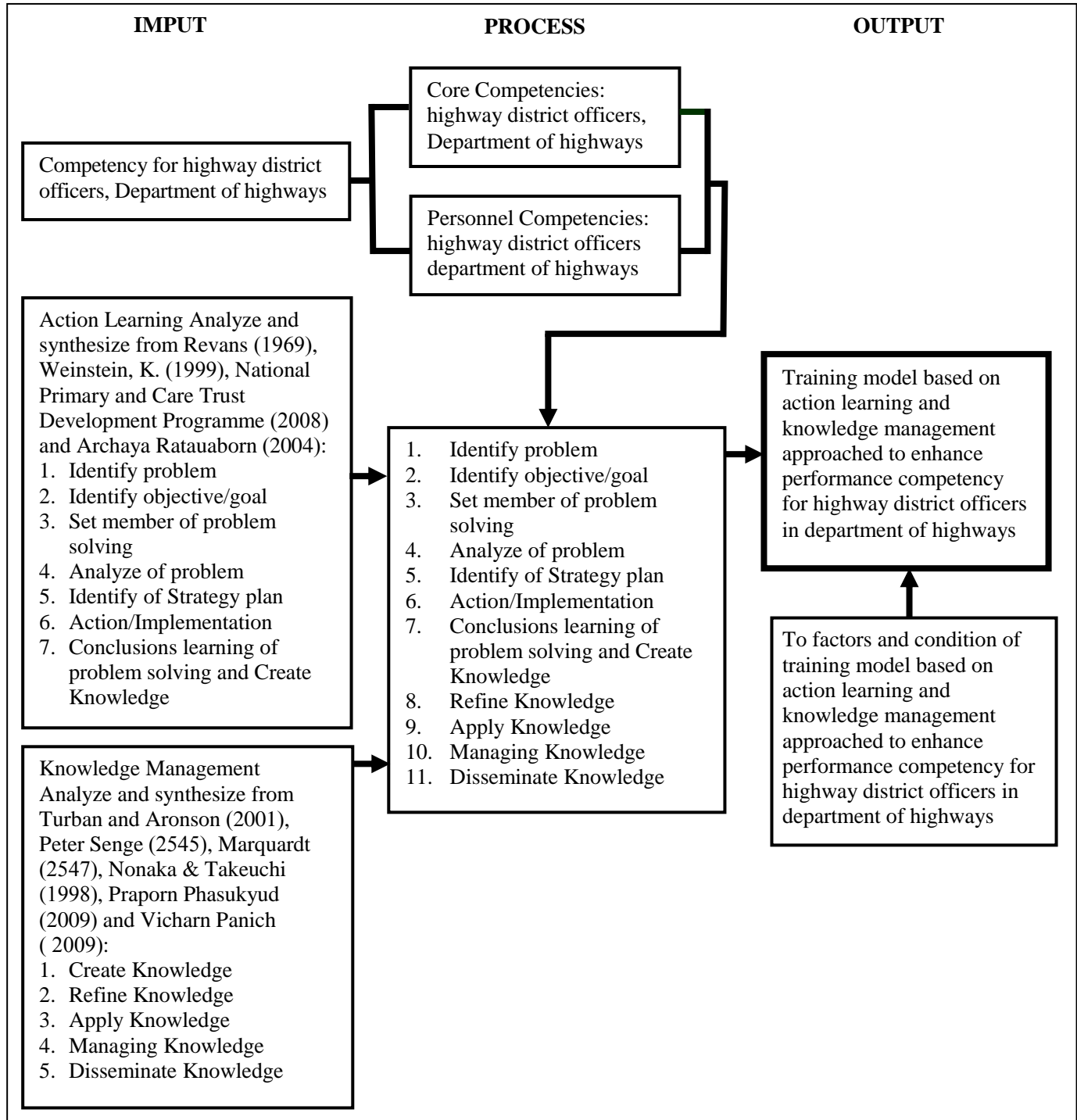
Figure 1: The Conceptual Framework

[Department of Highways (DOH): The government department is responsible for construction, repair and maintenance of all highways in the country. At present, Thailand has 60,000 kilometers of regular highways. District Highway Offices: The organization is in Department of Highways (DOH). It is responsible for repair and maintenance of all highways in the country]