

# A PROPOSED ENHANCING MODEL FOR LEARNING ORGANIZATION CAPABILITY AT RAJAMANGALA UNIVERSITY OF TECHNOLOGY LANNA, THAILAND.

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## ABSTRACT

The purpose of this study was to develop an enhancing model for learning organization capability at Rajamangala University of Technology Lanna (RMUTL). The sample group of participants comprised of 419 RMUTL instructors and supporting personnel, and eight experts conducting focus group discussion. Data collection was undertaken through the use of four rating scale questionnaires with the reliability of 0.94. The collection of data was done by hand from all four campuses where questionnaires had been sent, while all of the rest were returned by mail. Group discussion was conducted to check the accomplishment of the model towards utility standard, feasibility standard, propriety standard, and accuracy standard. Data analysis was carried out through the use of percentage, arithmetic mean, standard deviation, and content analysis. The results were that the overall aspects and each aspect of learning organization at RMUTL were at a moderate level. According to the need assessment, learning dynamics and personnel empowerment were beyond the set criterion. Technology application was at a very good level while organization transformation and knowledge management (KM) were at a poor level. The enhancing model for learning organization capability at RMUTL was the format with a mechanism circuit showing the close relation of principles, main components and sub-components.

**Keywords:** Learning organization model, RMUTL

## INTRODUCTION

Today, knowledge has been the critical asset in organizations. The organizational learning is the basic way of making knowledge work and improving organizational performance. Therefore, a successful organization should be well equipped at learning environment. Senge (1990) reported how to build learning organization. All five disciplines that had been carried out were personal mastery, improving mental models, building shared vision, team learning, and system thinking. Dixon (1994) pointed out that the process of organizational members learning was the process of sharing meaning structure each other and it was just the sharable meaning structure that makes organizational learning possible. Consequently, the growing awareness of the value of the knowledge embedded in the experiences, skills, and abilities of people were emerging as a significant challenge to improving organizations. The learning organization has to include a sense of developing the potential of all staff members through staff development and self-development. It must also promote the concepts of learning on the job, in and through the work situation so that the organization can develop the capacity for self-renewal and for adaptation to survive and prosper (Duke, 1999). Argyris (1999) indicated that it was not organizations that perform the actions that produce learning, but rather individuals who act as agents of the organization who produce the behavior that leads to learning.

Rajamangala University of Technology Lanna (RMUTL) joined the Higher Education Commission in 2005. Consequently, it is essential to mobilize all its existing resources and to set up effective management strategies for its success. The university key personnel who play the leader roles must have wide vision, understand RMUTL background, be accepted by the staff, have leadership and encourage their subordinates to do their duties with full potentiality, and be internationalizing to bring international networks and co-operations for the

development of the organization. According to its new structure and in the era of changes, personnel preparation must be effectively undertaken. Teachers should have good knowledge of management in four aspects, i.e., teaching, researching, providing educational services to societies, and maintaining arts and cultures (Songthanapitak, 2005).

RMUTL has set up its own structure comprising four faculties and six areas, i.e., Chiang Rai, Chiang Mai, Nan, Lampang, Tak and Phitsanulok. The number of personnel including teachers and staff is 1,062. Since RMUTL is a new university, it is essential that the development of personnel and infrastructure should be focused to match the changes. This has been partly carried out due to its limited resources. Consequently, personnel development cannot be undertaken thoroughly. In order to accomplish this, it takes time and a lot of money. Anyway, this problem can be easily solved by making all personnel understand the basic notion of creating a similar learning organization and later this will help develop RMUTL as a whole.

This study aimed to develop an enhancing model for learning organization capability at RMUTL. The result of this study will be used as a guideline for developing, setting up the policies and plans for developing an enhancing model for learning organization capability at RMUTL.

## RESEARCH FRAMEWORK

This research aimed to develop an enhancing model for learning organization capability at RMUTL. The model was modified from Marquardt's notion (1996) comprising five main components, i.e., learning dynamics, organization transformation, people empowerment, knowledge management and technology application, and from Fetterman's principles (1996), which consisting of four steps, i.e., taking stock, setting goals, developing strategies and documenting progress. The conceptual framework was summarized, as shown in Figure 1.

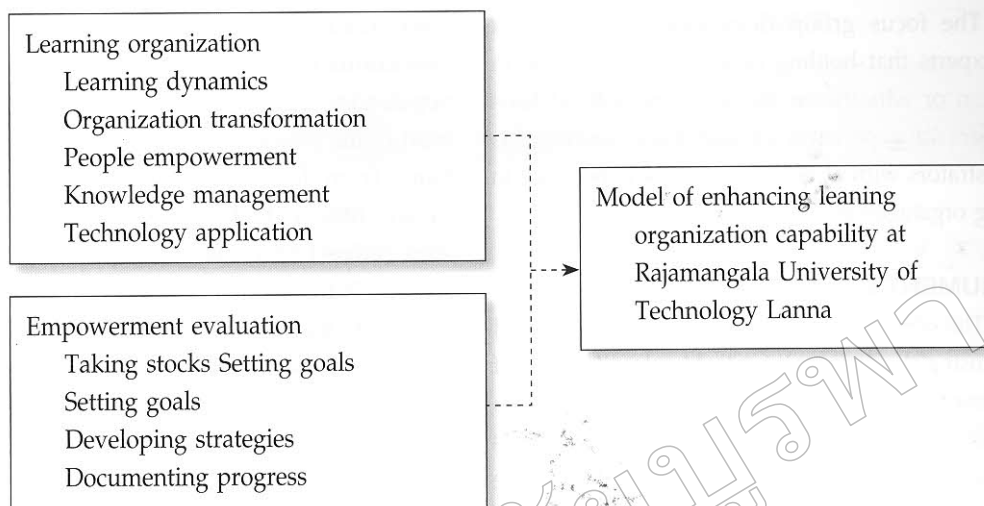


Figure 1. Schematic diagram demonstrated a conceptual framework that used in this study.

The development of the enhancing model for learning organization capability at RMUTL was aimed to gain an effective format enhancing learning organization capability that responded to the staff's needs. The resulting model might serve as a guideline for the development of staff, teamwork and organization that would promote RMUTL to be a learning educational organization.

## RESEARCH METHODOLOGY

### Sample

The population used in this study consisted of 1,062 instructors and supporting personnel that had been working at RMUTL in the year 2008. The sample group was comprised of 419 instructors and supporting personnel of RMUTL that taken from the

whole population in the same year. The sampling method was carried out using stratified random sampling from the six RMUTL campuses based on criteria used in the Table of Krejcie and Morgan, (1970), as illustrated in Table 1.

Table 1. The population and sample groups that used for data collection in the study.

Campus	Population		Sample group	
	Instructors	Supporting personnel	Instructors	Supporting personnel
Tak	144	47	47	28
Phitsanulok	84	37	27	22
Nan	80	40	26	24
Lampang	130	67	43	40
Chiang Mai	314	70	103	41
Chiang Rai	42	7	14	4
Total	794	268	260	159

The focus group discussion comprised of eight experts that holding either doctoral degree in education or educational management with at least five years of experience or had been working as administrators with at least 10 years of experience in learning organization.

## INSTRUMENTS

The construction of questionnaire was carried out by using the four-point rating scales. A series of development, i.e., identifying the concepts and theories from existing documents related to five main components of learning organization, were accomplished. The five components were consisted of learning dynamics, organization transformation, people empowerment, knowledge management, and technology application. The questionnaire comprised of 50 questions. The advisory committee reviewed the constructed questionnaire for the face validity of the questions. The modification of questionnaire was subsequently done according to the suggestions of the advisory committee. An analysis of the data was done to determine the Internal Consistency Reliability ( $\alpha = 0.94$ ) using Cronbach's Alpha method (Cronbach, 1990).

Four hundred and nineteen sets of constructed questionnaires were distributed to the selected populations in six campuses of RMUTL, in which most of the returned questionnaire were collected by hand from four campuses, i.e., Tak, Lampang, Chiang Mai, and Phitsanulok, while some of them were returned from the other two campuses, Chiang Rai and Nan, by mail. The period of the study was between August and September 2008. Three hundred and ninety five sets of the returned questionnaires (94.27%) were obtained. All returned questionnaires were checked for the completeness of information and subsequently analyzed using percentage, arithmetic mean, and standard deviation.

The process for developing an enhancing model for learning organization capability at RMUTL was identified from the result of needs assessment for learning organization by using the matrix analysis method which demonstrated that the relationship between 'what is' and 'what should be' conditions, and separates the values at the mean of 'what is' and 'what should be' points (Suwimol, 2005). This employed a 2x2 table (4 parts or 4 groups). Each group had the meaning as follows:

Group 1 'what is' is high, and 'what should be' is low (better condition).

Group 2 'what is' is high, and 'what should be' is high (best condition).

Group 3 'what is' is low, and 'what should be' is high (modification is needed).

Group 4 'what is' is low, and 'what should be' is low (improvement is needed).

Regarding drafting of the enhancing model for learning organization capability at RMUTL, the self-assessment report (SAR) of RMUTL was analyzed. The concepts, theories, articles, and best practices related to the learning organization were also searched from all available documents. The constructed model was scrutinized through the focus group discussion for evaluating the completion of the strategy, in which four factors, i.e., utility standard, feasibility standard, propriety

standard, and accuracy standard were emphasized. The focus group discussion was held on Tuesday, May 26, 2009 from 9.00 to 12.00 a.m. at the Miracle Grand Convention Hotel in Bangkok. The details of the conversation were noted down and recorded.

## RESULTS

Results of the analysis of the level of personnel's regarding to learning organization at RMUTL are summarized in Table 2.

**Table 2.** Mean, standard deviation, levels, and ranks of learning organization at RMUTL.

Learning organization	n= 395			
	$\bar{x}$	S.D.	Opinion level	Rank
Learning dynamics	2.05	0.48	Moderate	1
Organization transformation	1.97	0.53	Moderate	4
People empowerment	2.01	0.55	Moderate	3
Knowledge management	1.91	0.53	Moderate	5
Technology application	2.04	0.56	Moderate	2
Total	1.99	0.47	Moderate	

Table 2 shows that learning organization at RMUTL as a whole was at moderate level (EMBED equation, DSMT4 = 1.99). Considering each aspect, it was found that learning dynamics, technology application, people empowerment, organization

transformation, and knowledge management had the mean value of 2.05, 2.04, 2.01, 1.97, and 1.91, respectively. The finding of the level of need assessment of learning organization at RMUTL is shown in Table 3.

**Table 3.** The need of assessment levels of learning organization at RMUTL.

Learning Organization	n = 395			
	Mean of what is	Mean of what should be	Mean difference	rank
Learning dynamics	2.05	3.53	1.48	5
Organization transformation	1.97	3.52	1.55	3
People empowerment	2.01	3.52	1.51	4
Knowledge management	1.91	3.49	1.58	1
Technology application	2.04	3.61	1.57	2
Total	1.99	3.53	1.54	

Table 3 shows that the difference between the mean of what is and the mean of what it should be of learning organization at RMUTL as a whole was 1.45. Considering each aspect, it was found that KM came first; followed by technology application, organization transformation, people empowerment, and learning dynamics, respectively.

The finding of need assessment using a matrix analysis method to demonstrate the relationship between 'what is' and 'what it should be' conditions is shown in Table 4.

**Table 4.** Need assessment of learning organization using matrix analysis method to demonstrate the relationship between ‘what is’ and ‘what should be’ conditions at RMUTL.

Learning organization	Group 1 (Better)	Group 2 (Best)	Group 3 (Needed to be improved)	Group 4 (Needed to be developed)
Learning dynamics	X			
Organization transformation				X
People empowerment	X			
Knowledge management				X
Technology application		X		
Total	2	1	0	2

Table 4 shows that the need assessment of learning organization at RMUTL resulted in three groups. The learning dynamics and people empowerment were in group 1, Technology application was in group 2, and organization transformation and KM were in group 4. If ‘what is’ is low and ‘what it should be’ is low, it means that improvement is needed.

The development of enhancing model for learning organization capability at RMUTL was

conducted to meet the staff’s requirements by being based on the suggested data and guidelines for the development of personnel, team work, and organizations leading RMUTL to a suitable learning organization. A focus discussion group was undertaken to check the completeness of the formats promoting learning organization capability at RMUTL, as shown in Figure 2. The data obtained from group discussion were analyzed towards their contents. Finally, the format was improved as the experts suggested.

**Additional details**

**Principles**

The principles of a model enhancing learning organization capability at RMUTL consist of three aspects:

Principles	Golds/Procedures
1. Creating realization	Preparation must be undertaken for those who are concerned to see the importance of educational administration and management, an organization development, their responsibility and achievement, and the realization of creating a learning organization for all.
2. Participation	Towards the process of promoting RMUTL learning organization learning, participation plays an important role in educational administration and management. Every section and everybody is important. Thus, each has to be responsible for his duty and takes part in carrying out all the works effectively and successfully.

Principles	Golds/Procedures
3. Checking for development	Concerning the promotion of RMUTL learning organization, there is a process of checking, rechecking and assessing to quality and raise the promotion of RMUTL learning organization to a higher level. This will bring about continuous and sustainable development.

The enhancing model for learning organization capability at RMUTL comprised three principles, four main components and 25 sub-components that

were related to one another and became a mechanism circuit enhancing learning organization capability, as shown in Figure 2.

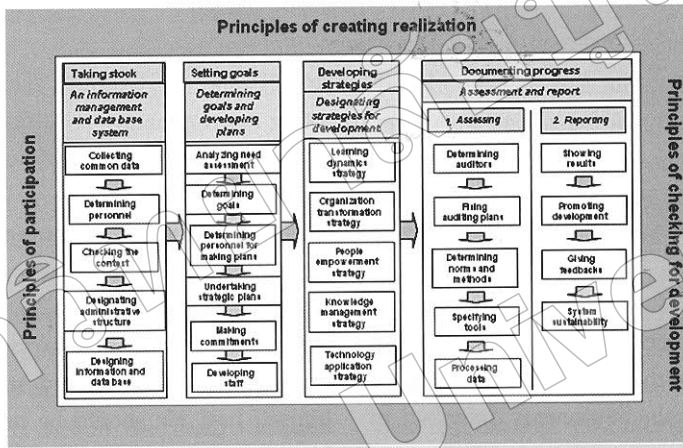


Figure 2. A model of RMUTL learning organization capability

**Main components and sub-components**

The main components and the sub-components, the circuit of promoting learning organization

capability, have the operating connection to one another as follows:

Main components	Sub-components
1. An information management and data base system	1.1 Collecting common data 1.2 Determining personnel 1.3 Checking the context 1.4 Designating administrative structure 1.5 Designing information and data base
2. Determining goals and developing plans	2.1 Analyzing need assessment 2.2 Determining goals 2.3 Determining personnel for making plans 2.4 Undertaking strategic plans 2.5 Making commitments 2.6 Developing staff

Main components	Sub-components
3. Designating strategies for development	3.1 Collecting common data 3.2 Determining personnel 3.3 Checking the context 3.4 Designating administrative structure 3.5 Designing information and data base
4. Assessment and report	4.1 Assessing <ul style="list-style-type: none"> <li>4.1.1 Determining auditors</li> <li>4.1.2 Fixing auditing plans</li> <li>4.1.3 Determining norms and methods</li> <li>4.1.4 Specifying tools</li> <li>4.1.5 Processing data</li> </ul> 4.2 Reporting <ul style="list-style-type: none"> <li>4.2.1 Showing results</li> <li>4.2.2 Promoting development</li> <li>4.2.3 Giving feedbacks</li> <li>4.2.4 System sustainability</li> </ul>

## DISCUSSION

The enhancing model for learning organization capability at RMUTL was the connection of principles, main components and sub-components described in the following statements.

The principles comprise creating realization, participation, and checking for development.

### The principle of creating realization

It is a preparation for those who are concerned to see the importance of an organization development, to be responsible for their duties focusing on task accomplishment, and to create realization of a learning organization. Loungemechaicharoen (2004) stated that the norm of development was a creation of realization by holding activities, cooperating, trusting, praising, and rewarding to all participants. This responds to the idea of Anuroj (2009) who stated that the creation of realization started from offering real data of the organization. Everybody must know the organization problems and helps one another analyze the causes, find solutions, create strategic plans and find key performance indicators (KPI). We should also pay special attention to the

work of Kaewparadai (2004) who found that a sustainable norm of development was the creation of realization. One should start solving a problem himself first. He should be proud of and appreciate his own career. Administrators should supervise and undertake the follow-up for a continuous development, give support and help solve problems.

### The principle of participation

Participation is a part of educational management. Every part and dimension should be emphasized. Every concerned party should give cooperation. Everybody who is concerned should cooperate and effectively fulfill the tasks. Anuroj (2009) stated that participation or taking part was to bring personnel to be a part of an organization, to make them have a sense of belonging, and to join and lead the organization to meet its goals. That is everybody must engage oneself and unite to be one. Kulapa (2004) stated that when the members took part in making decision, they felt committed to that matter, and if they join in the activity, they would feel of enterprising. This will help change their attitude and make them realize the importance of participation

which responds to Jarinrattanakorn (2001) who stated that personnel's participation was enthusiastically taking part and there was strength at various levels towards the process of making decision to designate the organization goals and to provide resources to those goals including to follow all the plans or projects willfully.

### **The principle of checking for development**

It is a process of periodically measuring or checking the undertaking of a project to see if it is really undertaken, if activities are being carried out, and if the resources are exploited to the most use according to the set objectives, time and procedures (Sirirasamee, 2002). This responds to the idea of Boonyoung (2009) who stated that the audit performance was a checking that emphasizes an outcome. The internal auditors will check whether or not the performance is undertaken according to the objectives and goals set in the budget plan, the production process, the project and the activities. They will also check if the products are effective and useful in terms of quantity and quality, and if the resources are used within the fixed duration. Sirisuthidacha (2009) suggested that checking according to regulars and rules including cause and effect analysis would be very useful for work assessment which would bring changes. If there is no checking for development, impacts will occur as Chantrasataporn (2003) mentioned that an economic crisis would occur in Thailand and ASEAN due to the lack of good management.

### **Main components and sub-components**

Main components and sub-components are mechanism circuit that enhances a learning organization. Each of them has close relation and is connected to one another as follows.

The main components comprise four items: an information management and data base system, determining goals and developing plans, designating strategies for development, and assessment and report.

An information management and data base system consists of five sub-components. The first sub-component comprises collecting common data, determining personnel, checking the context, designating the administrative structure, and designating information and data base. Since the information system is a key for an organization performance, administrators must manage and make it suitable to the organization context by making the most use of limited resources, undertaking the process systematically, using the data for administrating, coordinating and following up work, and using for effective decision making. Teindruengrode (2009) stated that an information system was a key factor for administration and management. To be able to develop administration quickly, and to lead the organization successfully in knowledge-based societies, an information system must be underlined and systematically promoted and it should be a key mechanism in facilitating, educating and providing knowledge to people in a learning society. These also respond to the idea of Nantiyakul (2009) who stated that data collecting, data processing, and designing information were undertaken to assist decision making, coordinating, supervising, analyzing and solving problems, and manufacturing new products using hard ware, soft ware and people ware which were the uses of information system.

Determining goals and developing plans consists of six sub-components: analyzing need assessment, determining goals, determining personnel, undertaking strategic plans, making commitments, and developing staff. Goal determining is the component that brings success in all kinds of business including leading our lives. Determining goals gives us directions in doing work and helps us designate destination and objectives for the success as expected. Buranaosot (2004) found that a planning process for the development of a university consists of preparation, planning, employing the plan, follow-up and evaluation, revision or making a new plan. This responds to the idea of Sirirasamee

(2002) who stated that planning was a process consisting of activities continuously undertaken and corresponded to both internal and external changes, and some parts of the plans may be revised if the result is not what has been expected.

Designating strategies for development comprise five sub-components, i.e., learning dynamic strategy, organization transformation strategy, people empowerment strategy, knowledge, management strategy, and technology application strategy. Since designating strategies for development emphasizes the ability to predict the organization future leading to its goal, this is to prepare itself for a competition or changes that may occur. It also underlies the ability to adapt organization itself so that this may lead to its set goals. Duangwiset (2000) suggested that strategy management an important task of a top rank executive who had to undertake two parts: strategy formulation, the analysis of the real business situation and its expectation, and strategy implementation, the analysis of methods moving the business ahead as it is expected to be. This responds to the idea of Wacharadham (2009) who stated that in executing an organization, an executive should aim at organization effectiveness to enable the organization to match all external changes and at the same time the organization efficiency, the use of appropriate resources, is still required. These points can be gained through the employment of strategic management similar to the research on strategic cultural development undertaken by Putwattana (2002) which mentioned about policy, administration, resources, and the research outputs.

Assessment and reporting consist of five sub-components on assessment and four sub-components on reporting as described in the following statements.

The five sub-components are determining auditors, fixing auditing plans, determining norms and methods, specifying tools, and processing data. Since an assessment is employed to check a deviation between the set goal and the out come, it is then useful for the evaluation of a production, process and success. This responds to the idea of Sirirasamee (2002) who stated that an assessment

was a process seeking for information to designate a value of a thing for making decision systematically with reasonable and reliable criterion. Ritijaroon (2002) stated that the purpose of assessment is to create motivation for, to check, to make improvement, to analyze weakness, to make decision, to categorize, to make comparison of development, to predict and to estimate.

Reporting comprises four sub-components: showing results, promoting development, giving feedbacks, and system sustainability. Writing a report is a presentation of facts that attract readers' attention. It is recommended that opinions be avoided. Sirirasamee (2002) stated that a good reporting possesses the following principles: accurate, present, detailed, easy to understand, and useful for making decision or operation.

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