

Ting Miao
Worawit Janchai¹
Anurak Panyanuwat

Article info:
Received 14.08.2020
Accepted 20.11.2020

UDC – 551.501.6
DOI – 10.24874/IJQR15.02-09



A QUALITY ASSESSMENT AND COMPETENCY DEVELOPMENT THROUGH PARTICIPATORY KNOWLEDGE MANAGEMENT APPROACH FOR STAKEHOLDERS' IN "FOREIGN EXPERTS INTRODUCTION PROJECT" IN A CHINESE UNIVERSITY

Abstract: *This research aims to explore on quality assessment and develop a participatory knowledge management (KM) approach through a competency development model based on the concepts of "CommonKADS", needs assessment, and CIPP model. Data were collected by the use of questionnaires, interview formats, and focus group discussion items for the model's empirical test. They were analyzed by frequency distribution, mean and standard deviation, t-test, and data analysis.*

The approach's participatory characteristic was determined for the stakeholders, followed by its components, consisting of the input and process factors with technical conditions and driving mechanism. After their learning needs were assessed and prioritized, a model was developed as a conceptually formulated pattern of a KM's functional guidance with five dimensions-language competencies, coordination techniques, planning and administration competency, teamwork commitment and academic competency. The findings indicated that (1) an empirical test of the approach was conducted with the foreign affairs officers and university lecturers successfully and satisfactorily, (2) the key informant experts verified that the appropriateness of this participatory approach to knowledge management. This approach was confirmed as a series of continuing KM procedures involving the stakeholders' physical and mental participation in creating, thinking, planning, and making the decision.

Keywords: *Quality Assessment; University Foreign Experts Introduction; Competency; CommonKADS; Participatory Knowledge Management Approach.*

1. Introduction

The increasing importance of quality assessment and assurance in institutions of higher education in China (and the

establishment of quality agencies) has to be seen in the context of basic changes and reforms in the higher education sector over the last thirty years. Since China's country reform and opening in 1978, the Government

² Corresponding author: Worawit Janchai
Email: worawit.jc@gmail.com

set up a policy of retaining foreign experts in its development plan. Such policy implementation duration may be divided into three stages: preliminary exploration stage (1978—1983), overall planning stage (1983—2003), and innovation stage (2003—now). Since 2012, China has supportively invested budgets in the introduction of foreign talents for universities and other government agencies to continue their talent improvement. The main ideas were to blend the modern technological and conceptual advancement from internal and external sources of the country into China innovative technology and various development dimensions. Consequently, the economic,

technological growth and social adjustment of China recently reflect the integration results of such idea implementation based on the competency development of the concerned agencies and their personnel. Within the lifelong education concept, such competency development should be the impacts of various knowledge management's contents and quality with self-development and self-instructed learning process applications. Hence, the Global Talent Competitiveness Index (GTCI) in 2018 could witness such development with a continuing rising score between 44.97- 46.60 during 2013-2017 (Figure 1).

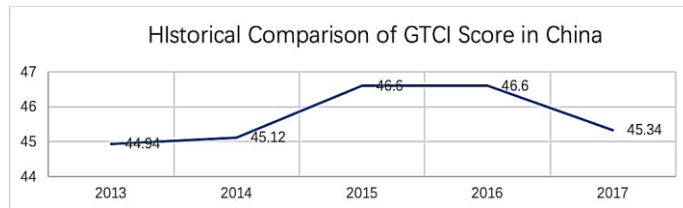


Figure1. The Global Talent Competitiveness index 2018 (GTCI)

A knowledge management (KM) concept has been recognized as a series of information acquisition and interpretation with relative concepts and appropriate procedures into knowledge and utility (Panyanuwat, 2016; Aujiरणongpan et al., 2010). KM may be viewed in the way of natural thinking, data gathering, analyzing and making a decision of people against any given issue for problem solution. Therefore, under any given circumstance, a KM activity functions in line with an umbrella issue, of which the procedural steps should consist of main and related minor issue identification, data and information acquisition, storage, and retrieval for the users' utilization. This KM model may be regarded as an individual, group or organizational activity continuously. Additionally, KM process can be notified as a top-down to bottom-up learning approach, depending on its characteristics, factors of contents and procedures, and driving mechanism towards

the KM goals. Thus, the researcher had a significant question of applying KM to meet the organizational needs for competency development. Practically, was it feasible to develop an appropriate KM approach with a practicable bottom-up model based on self-actualization and common awareness for the public benefits at the university level in China? Would the approach be acceptable and adoptable among the working staff under the "Foreign Experts Introduction Project"?

2. Literature Review

2.1. Importance of Quality Assessment in Higher Education

Education is indeed one of the fundamental needs of human development and poverty eradication and is important to achieve economic development and a stable society (Sivakumar & Sarvalingam, 2010). The

promotion of education is becoming more evident in recent decades and the need to use promotion equipment is broader than it has ever been. Education is the government's responsibility and should therefore be supported by national resources (Rahman & Uddin, 2009). Higher education is also essential to society for social and economic benefits (Brennan & Teichler, 2008). Quality assurance is key in helping to provide 'quality' of higher education. Quality is defined in this article as 'fitness for use' and the quality control is defined as 'all structures, processes and activities aimed at obtaining, sustaining, tracking and enhancing quality' (Woodhouse, 1998). Quality assurance for institutions of higher education is very much a crucial subject globally, promoting collaboration at regional and global level among quality assurance authorities. The principles of transparency, efficiency and effectiveness have been central to Chinese government policies in recent years, especially for public sector activities which do have substantial tax revenues, such as higher education (HE).

2.2. Participatory Approach

In the 1970s and early 1980s, the Government authorized the local universities to set their own development missions with more freedom for personnel development project implementation relating to learning and teaching plans. A participatory approach characteristic may be applicable in research method design and help enlarge involvement of both target group and stakeholders. The participatory approach can be seen as a requirement, but also as a benefit to the overall paradigm change towards sustainable development. This will contribute towards the integration of sustainability concept into the university culture. A participatory approach may not be familiarized among the officials in China, due to their limited experience in such a way of consensus-based processes for data analysis and interpretation. If it were implemented in one

agency at the university level, the staff would have been surprised in a questionable manner-either against, agreed or ignored it. It would have been either the first adult experience in an organized group at the university level. On the other hand, if this type of approach were adopted through a learning and trial process, it might have been a self-development with a high degree of self-awareness for each personnel to involve in a self-directed learning process automatically and naturally in line with the 21st-century skill development. The participatory approach may have advantages on a high degree of initiation, decision-making process control, use of local resources in making the decision, interpersonal interactions. Consequently, the researcher decided to select and apply the participatory approach in this study, as it has the most advantages in facilitating the university staff to meet their successful goals of KM. It will provide the university staff with some related self-learning opportunities. Accordingly, the researcher applied various related concepts to formulate a participatory KM approach applicable to the Chinese university context of competency development continuously. The 2020 initial survey, which had been conducted by the researcher in a public university, indicated that the staff (who would not be the samples of this study) preferred to make their own self-learning decision toward any task given by their superior officers rather than upon their orders. Therefore, a participatory approach to knowledge management was found preferable among the staff. It is defined here as a series of continuing procedures that involve the stakeholders' physical and mental participation in creating, thinking, planning, and making-decision in earning information and transforming into knowledge and skills afterwards. This process relates to the determination of data sources, selected data acquisition, and data interpretation to become knowledge. In each KM's issue identification procedure, the stakeholders will fulfil their needs with the

acquired data with satisfactory decision appropriately applicable for further applications.

2.3. Competency Model of Participants in “FEIP” by CommonKADS

Competence generates value through the knowledge, skills, talents and know-how of employees. Competence is a major part of human capital. It represents the capability of the organization by its employees. At the heart of any successful activity lies a competence or a skill. In today’s competitive world, it is becoming particularly important to build on the competitive activities of a business. There has been much thinking about business strategy over the last three decades, particularly regarding what competencies a business needs to have in order to compete in a specific environment. The top management has been identifying corporate core competencies and has been working to establish them throughout the organization.

Knowledge engineering is a means of mining and extracting knowledge from experts and other information sources, encompassing various techniques for knowledge acquisition, modelling, representation and usage. Knowledge modelling is based on holistic tools and instructions such as mind mapping and card sorting in an inductive procedure of finding suitable solutions in the contradictory context of interests and requirements. Many knowledge engineering methodologies have been developed over the years, e.g., CommonKADS, Protégé, MIKE. Those methodologies encompassed knowledge capture and usage of expert’s experience assets, then consequently, designed appropriate tools for sharing knowledge management process. This study focuses on the CommonKADS’s application concept to capture knowledge, which is one of the most

widely used knowledge engineering methodologies in a given social context.

In this research, the researcher developed a competency model by CommonKADS, consisting of language competency, coordination techniques, planning and administration competency, specific academic competency, teamwork competency.

3. Research Objectives

This research objectives were as follows.

- (1) To study the current and expected situations for analyzing the university’ foreign affairs officers (FAO) responsible for the “Foreign Experts Introduction Project” and stakeholders’ competency in academic and routine job implementations for quality assessment purpose.
- (2) To develop a participatory KM approach with its components for the university’s FAO and stakeholders’ competency development and maintaining the quality.
- (3) To test the appropriateness of participatory KM approach academically for the university’s FAO and stakeholders’ competency development.

4. Conceptual Framework

Figure 2 illustrated this research’s whole conceptual framework. The study constructed a participatory knowledge management model based on Stufflebeam’s CIPP Model (Context, Input, Process, and Product). The concepts of needs assessment, competency development, participatory approach, CommonKADS, and knowledge management were applied to formulate a model with characteristics and components, and then a participatory approach was formulated in line with CommonKADS and lifelong learning concepts.

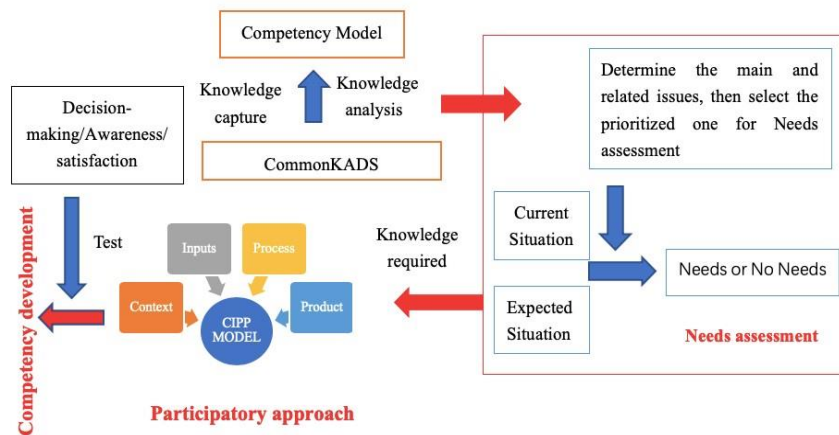


Figure 2. Conceptual Framework

5. Research Methodology

The population of this research consisted of 3 groups. (1) Ninety-seven faculty lecturers of the university, who normally function as the co-teaching staff with the invited experts or visiting professors; (2) 6 FAO officers responsible for the university’s “FEIP”; and (3) 734 lecturers, who have never participated in the “FEIP”, from 20 faculties/colleges under the five categories- Humanities and Social Sciences, Natural Science, Engineering and Technology Science, and Medical Science and Agricultural Science. The researcher used total population sampling (Laerd Dissertation,2018) for purposively selected 88 faculty/college lecturers (Group 1) who could be available to participate in this study and 6 Foreign Affairs Officers (FAO) (Group 2). The total population sampling is a type of purposive sampling where the whole population number of these two groups was small. Their characteristics shared teaching/research and university service in common and well-defined tasks. The researcher defined Group 1 and 2 population first, then, created their name lists, and collected relevant data from all of them. For Group 3, 179 samples were selected based on the sample number suggested by Taro Yamane formula, and then, identified by the

use of stratified and systematic random sampling technique with a confidence level of 95%. Data collection instruments consisted of a set of questionnaires and a set of semi-structured interview for needs assessment, an evaluation form for experts’ opinions, and a set of focus group discussion items. The questionnaires were pre-tested for content validity and consistency with a result of the $IOC > .70$ items and tested with ten non-participant officers at the university level, by conducting discriminant of power by Item Total Correlation and reliability by Cronbach’s Alpha Coefficient and the reliability indication.

Data were collected by the use of all instruments in line with each research objective’s procedure. The collected data were analyzed against the criteria set by the researcher, using frequency distribution, percentage, means, standard deviation, content analysis, and synthesis. The researcher used the interpreted data (as indicted for this research’s Objective 1) analytically integrated with the documentary analysis results to develop a draft model of the participatory approach to KM. Then, the model was empirically tested for its appropriateness with the stakeholders and verified with the potential experts and administrators.

6. Results of the Research

6.1. The Current and Expected Situations of Officers for competency Development

The researcher used total population sampling for involving 88 (32.23%) faculty/college lecturers (Group 1), who used to join the program (FEIP) and also could be available to participate in this study and 6 Foreign Affairs Officers (FAO) (Group 2) in this study. Group 2 consisted of 6 (2.20%) Foreign Affairs Officers, and Group 3 comprised 179 (65.57%) lecturers, who had never joined the “FEIP” before.

The researcher applied CommonKADS concept as a process to determine the learning needs of the public university officer samples who were (and would be, in the future) responsible for the “FEIP”. They were purposively selected to participate in the needs assessment section. They were two groups of university colleges/faculties’ lecturers (used to and never attended the “FEIP”), and FAO’s officers, of which their functions were the co-teaching/co-researching staff with the invited experts or visiting professors from abroad.

Ontology of CommonKADS is used to analyze the task, inference, domain

knowledge and the link connections between each other. The flowing figure 3 is showing the relationships among the main task the characteristics of “FEIP”, subtasks of each task, and all the inferences under each subtask. The inferences’ domain knowledge and are analyzed and structured in figure 3 to find what kind of competencies are needed in “FEIP”.

The CommonKADS concept was a help to set a practical guideline for the participants to identify their needs at the current stage, by comparing the current situation and expected (or should have been/would have been) situations for them to be competent enough to handle their assigned task as the “FEIP”’s coordinators effectively. The participants were guided to set up the main issue and related issues in order to find a suitable solution by capturing and analyzing the data through interpreted meaningful information available at various sources both within and outside the university. Then, the information would be practically converted into a set of related knowledge to the assigned task.

Initially, Through the illustrated the “FEIP” tasks analysis by using CommonKADS concept Figure 3, the study found the participants’ competency development needs in 5 dimensions (Figure 4).

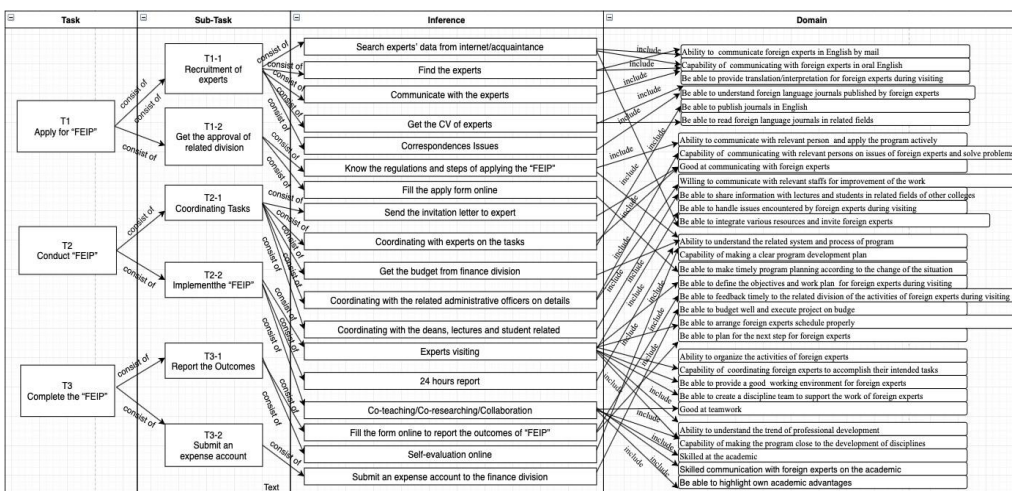


Figure 3. The tasks analysis of “FEIP” by using the CommonKADS Concept

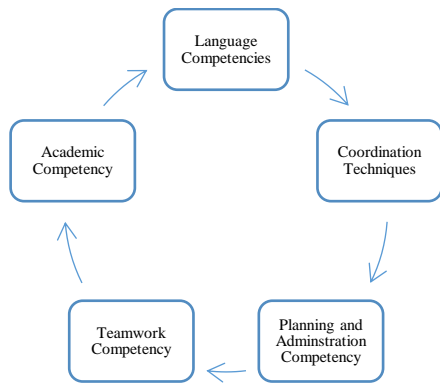


Figure 4. Identification of Competency Dimensions for conducting the “FEIP”

Those were language competencies, coordination techniques, planning and administration competency, teamwork competency and academic competency, as symbolized by the use of X1 to X5 in Table 1. Each dimension’s detailed domain and necessary contents was found statistically significant differences, as being identified after the comparison between the current and expected situations’ competency. The results indicated their academic and practicable competency discrepancies as determined by themselves. They were, therefore,

determined as the participants’ learning needs after conducting a participatory needs assessment simultaneous with a knowledge management approach. In sum, Table 1 showed the needs assessment results of the three groups of participants indicated that there were significant discrepancies (at the statistically significant different level of 0.004) between the current ($X=3.23$, $S.D.=1.090$) and expected situations in all dimensions and contents ($X=4.56$, $S.D.=0.602$). Those results indicated the learning needs of those participants for their competency development to conduct the “FEIP” efficiently and effectively. Therefore, the researcher took the next step for the KM approach development by formulating it based on the CIPP model and CommonKADS to know other related concepts. Finally, apart from “know how” to conduct KM by using the CommonKADS concept, another pole of the participants’ KM outcomes were as the following sequential series-from searching and contacting experts’ data to expert reception till project evaluation and expenditure submission to the university.

Table 1. Synthesis Summary of the Needs Assessment Results of Group 1-3 for the potential participants’ competency development

Groups	Items	Current competencies		Expected competencies		T Stat	P-value
		Mean	Std. Deviation	Mean	Std. Deviation		
Group 1	X1	3.25	1.254	4.27	1.026	-9.554	0.000
	X2	3.62	1.023	4.49	0.722	-8.403	0.000
	X3	3.77	1.005	4.52	0.735	-8.576	0.000
	X4	3.68	0.977	4.55	0.655	-8.370	0.000
	X5	3.67	0.998	4.68	0.576	-8.000	0.000
Group 2	X1	2.89	1.067	5.00	0.000	-5.971	0.005
	X2	3.41	0.847	5.00	0.000	-5.005	0.008
	X3	3.62	0.860	5.00	0.000	-4.311	0.020
	X4	3.40	0.974	5.00	0.000	-4.453	0.016
	X5	3.00	1.095	5.00	0.000	-4.472	0.007
Group 3	X1	2.78	1.274	4.15	1.116	-13.354	0.000
	X2	2.75	1.246	4.16	1.050	-13.992	0.000
	X3	2.72	1.281	4.07	1.108	-13.029	0.000
	X4	2.93	1.230	4.16	1.055	-13.578	0.000
	X5	2.94	1.210	4.37	0.991	-13.966	0.000
Summary		3.23	1.090	4.56	0.602	-9.002	0.004

X1: Communication Competencies (Language Competencies) ; X2: Communication competency (Coordination techniques); X3: Planning and administration competency; X4: Teamwork competency; X5: Academic competency

6.2. Development of a participatory KM approach with its components

As indicated in Figure 2, the researchers applied CIPP model as an umbrella concept to develop a participatory approach to knowledge management with a special reference to competency improvement of the stakeholders in “FEIP” of a public university in China. Three more concepts were taken into account such approach development. Those were a participatory needs assessment process, knowledge management in line with lifelong learning and CommonKADS concepts.

Two main steps were conducted in the KM approach and model development. Although, the terms of “approach” and “model” here seemed to be a synonym or interchangeable terms for this study. However, in order to reduce any confusion toward those two terms, the researcher used the term “model development” as a means for drafting the whole conceptual framework, as shown in Figure 2. Firstly, the researcher defined the KM model (Figure 5) and elaborated into a participatory and self-learning characteristic, its input and process components, procedural techniques, driving mechanism factors with various conditions, and the product or outcome factors. Secondly, the researcher defined the approach as an interpretation of the whole model into KM actions in order to forklift the competency awareness of the potential participants through KM process (or a set of procedures, which is the process factor of the “model” term) in line with CommonKADS and lifelong learning concepts.

Consequently, the participatory knowledge management approach was designed, consisting of the following components.

- 1) its participatory characteristics of knowledge management,
- 2) its input components, consisting of sources of information relating to the identified learning contents, interactive persons (experts, foreign affairs officers and

lectures personnel, students, and interpreters), and managerial factors (budget, regulations, working venues, and necessary materials, and time allocation),

3) Its procedural components, techniques of communication, and data interpretation under relating conditions within the university context,

4) Its driving mechanism in order to accomplish the knowledge management process of each individual stakeholders’ personnel, such as some relating information technology (IT) application, amenity, and interpreters (in case of the foreign experts use another language than Chinese in working with the FAO, lectures, teaching staff and students).

5) Its knowledge management theories/concepts to get the product.

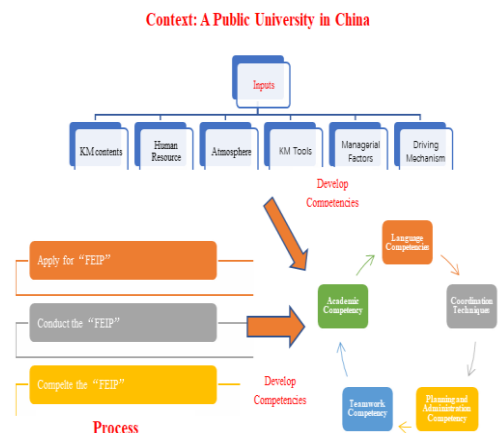


Figure 5. KM Approach

6.3. Testing of the appropriateness of participatory KM approach and Quality Assessment

This research applied the learning in action concept for competency development in three quarters (Table 2). Learning in action is to learn from the present, past, and future helps an organization to be a “learning organization”. It involves three processes: intelligence, experience, and experimentation. The steps to use learning in

action for competency development were divided into three steps: knowledge elicitation, knowledge codification and transformation, and knowledge dissemination and utilization.

The population of this testing contain 19 potential lectures from different faculties with the following sequential steps.

Stage 1 is knowledge elicitation. The general review of the documents was conducted by the stakeholders to search and inquire knowledge on their FEIP's tasks and clarified relating to their competency development needs. The questions in this stage were: "What is the context? What is "FEIP"? What are the inputs? Regulations to do the project. What is the process? What are the products? What competencies are needed?"

The researcher explained the main research objectives and expected outcomes to the participants about the participatory approach's meanings, usage, implementation and KM methods (based on needs assessment and CommonKADS). A model framework was explained in terms of the participatory KM approach characteristics and components. Under a given tangible and intangible contexts of the studied university, the researcher classified the participatory knowledge management approach's characteristics and components, consisting of inputs, process, techniques and conditions with the driving mechanism. Then, a series of learning contents are determined with prioritization, relating to each main issue of the "Foreign Experts Introduction Project" (FEIP). The main issues were such as "If you are assigned to organize a series of special lectures for a faculty members or BA students in one topic and related issue, very important to the country development in "digital logistics and empirical research", but currently you cannot find any expert specifies for this topic/issue, what and how are you going to do? What details of the preparation do you need to do?"

The researcher explained what information as this KM approach was in need, and where/how to get it systematically and relatively. The input component was elaborated into a number of elements, such as the people involved in the project (classified as the providers, experts, potential learners of KM workers), the project goals, the target group's needs, prioritized learning contents as being translated from their needs, materials, budgets, potentially acquired KM contents (such as office's regulations, suitable communication channels and methods), time and workable timeline, areas or working locations, and inter-personnel and agency relationships. The KM process components consist of a series of procedures of each main issues of the topic assigned.

Stage 2 is "Knowledge Codification and Transformation". In step 2, learning in action served as a construction zone for problem-solving under role-play activity and focus group discussion. The search, inquiry, observation, reflection and review are conducted in this stage. In role-play activity, in order to show the mutual relating approach components, the researcher explained them in detail (Figure 6). Firstly, this step was started with identifying the information sources relating to the needs and problems identified by the target group themselves with a close guideline given by the researcher, and then, implementing them into the learning needs and prioritization afterwards. The participants translated their prioritized learning needs into a set of learning objectives with relating contents, in order to determine the information sources for self-gathering with clear understanding. Then, they formulated the components into an active participatory knowledge management approach, step by step with a guideline given to the participants involved in this approach. The researcher let every participant explain their implementation plan to complete the expert invitation, lecturing, evaluating and reporting system understandingly.

		Knowledge management activities					
Year (2019)	Months	Normal Working Activities	Participatory KM Approach	Objectives	Knowledge management tasks	Learning Activities of "Learning in action."	KM Process
First Stage	2 months	General Review of the documents	Search experts' data from internet/acquaintance	Apply "OEIP"	Foreign Experts Recruitment/ Work practice	Search, inquiry	knowledge elicitation
		General Review of the documents	Communicate with the experts/ Get the CV of experts/Correspondences issues	Communicate with the experts/ Get the CV of experts/Correspondences issues		Search, inquiry	
Second Stage	3 months	Role play/ Focus group discussion	Procedures of "FEIP"/related documents/regulations/different kinds of "FEIP"/ IT application plan/outcomes/communitation results with experts/ Content of "FEIP"/outcomes of "FEIP"/detail of conduct/academic issues/cooperative fields/ amenity/ Budget plan/outcomes	Conduct the "FEIP"	Coordinating Tasks/ Experts visiting/24 hours report/ Teaching with the experts/ Researching with the experts	Search, inquiry, and observation* Reflection & Review	knowledge codification and transformation
Third Stage	6 months	Real Test	Input components: experts, foreign affairs officers and lectures personnel, students, and interpreters; managerial factors: budget, regulations, working venues, and necessary materials, and time allocation; procedural components: techniques of communication, data interpretation under relating conditions within the university context; driving mechanism: relating IT application, amenity, and interpreters knowledge management theories to get the product.	Adaptable to workplace/ Coordinate The project/Conduct the "FEIP."	Work practice/ implement project/project report	Search inquiry, and observation* Reflection & Review, and simulation*/ After Action Review (AAR)*	knowledge dissemination and utilization
	1 month	Assessing/ Group meeting		Experts Judgement	Report assessment Review Assessment		

Figure 6. Knowledge management activities

Stage 3 is the real performance in "FEIP". The stakeholders conducted the participatory knowledge management approach in a real situation. The whole process was conducted,

as shown in step1 and step 2. The results were judged by the performance of stakeholders. The performance of the "FEIP" were the requirements as in table 2.

Table 2. Performance requirements of "FEIP"

Performance requirements of "FEIP"	P1. The stakeholders could do co-teaching as planned with foreign experts.
	P2. The stakeholders have their papers published with the help of foreign experts.
	P3. The stakeholders apply for high-leveled research projects with the help of foreign experts.
	P4. The stakeholders complete the research projects with the help of foreign experts.

The results (table 3) showed that there were totally 19 people involved in the test, people who could only understand the participatory knowledge management approach, and could not conduct the project successfully (5%), 4 of the people could use the participatory knowledge management to complete the project successfully (21%), and the major 14 samples had great competency improvement, and could put their ideas together to conduct their KM project (74%). This meant that after learning in action process in the participatory knowledge management

approach, the stakeholders had the ability to finish "FEIP's tasks" perfectly.

7. Discussion and Conclusion

The research blended some important concepts to develop a participatory KM approach and then, empirically tested for quality assessment in a public university context. The approach followed a curriculum development process, starting with the use of needs assessment under a selected main topic with related major and minor issues.

Table 3. Samples Self-reflective Competency Development Stages

Competence development level	Functional competency improvement	Competency ability	Cognitive learning level (Bloom et al., 1956)	No. of samples	%
No change	None	Understanding the participatory knowledge management model	Knowledge comprehension (Competence layer)	1	5%
Incremental innovation	Middle	Using the participatory knowledge management model	Application analysis (knowledge layer)	4	21%
Radical innovation	Highest	Be able to put ideas in the participatory knowledge management model	Knowledge comprehension (performance layer)	14	74%

The gap analysis resulted in a set of identified and prioritized needs as Panyanuwat (2016) mentioned and translated into learning needs for competency development. Those participants could earn knowledge and practice their ability relating to what Weiss and Legrand called as intelligence, and also to the 21st-century skills' competency. While the participants analyzed a discrepancy between the current and expected situations and translated it into a set of the FEIP's learning and prioritized needs, they perceived their analyzed tasks in a similar way of the CommonKADS by conducting knowledge capture, knowledge analysis, knowledge modelling, and knowledge utilization. That process became a knowledge management process, utilizing the input factors under the university and their assigned task context. This evident could prove that the Stufflebeam's CIPP model (Stufflebeam, 1971) was applicable in this KM approach development and implementation.

The main issues under the assigned topic of "digital logistics and empirical research" were precisely related to the main questions of how to conduct the "Foreign Experts Introduction Project ("FEIP")" successfully. The procedural driving mechanism was classified as tangible and intangible factors forklifting any process's procedures to meet

the successful goal with mutual satisfaction of the experts and university staff involved in this project. Participatory research methods enlarged involvement of both target group and stakeholders, and therefore empowered themselves in decision-making, self-intervention and capacity building. Involvement in participatory processes also builds capacity among the public. It does so by educating the public as well as creating networks of relevant persons who can continue to address policy issues as they develop. However, not only the public needs to learn. All decision-makers can best learn how to improve their services and products by receiving direct feedback from the 'users'. Rather than first making and then fixing, it is most efficient to involve the end-users in the initial design and planning.

As an important part of the country's intelligence, colleges and universities are the main fronts for the introduction of foreign experts. The work of introducing intelligence in colleges and universities has great significance in the new era. "Foreign Experts Introduction Project" (FEIP) in universities has played a positive role in shortening the gap between education, science and technology and culture with developed countries, promoting the construction of the university's own teaching staff, improving teaching quality, strengthening discipline

construction, and improving the overall education level. In sum, a collective recommendation was that the public university should take this participatory KM

approach for further application, not only with the stakeholders or “FEIP”, but also other human resource development of the university.

References:

- Aujirapongpan S., Vadhanasindhu P., Chandrachai C. A., & Cooparat P. (2010). Indicators of knowledge management capability for KM effectiveness. *The Journal of Information and Knowledge Management Systems*, 40(2),183-203.
- Brennan, J., & Teichler, U. (2008). The future of higher education and of higher education research. *Higher education*, 56(3), 259-264.
- Panyanuwat (2016). A. Knowledge Management among the Indigenous Highlanders for Innovative Excellence and Sustainability in Upper-northern Thailand. *Knowledge Management and Innovative Intelligence*, Chiang Mai University Journal of Natural Sciences.
- Rahman, A. U., & Uddin, S. (2009). Statistical Analysis of Different Socio Economic Factors Affecting Education of NW. FP (Pakistan). *Journal of applied quantitative methods*, 4(1), 88-94.
- Sivakumar, M., & Sarvalingam, A. (2010). *Human deprivation index: A measure of multidimensional poverty*.
- Stufflebeam, D. L. (1971). The Relevance of the CIPP Evaluation Model for Educational Accountability. *Journal of Research and Development in Education*.
- Woodhouse, D. (1998). Quality Assurance in Higher Education: the next 25 years. *Quality in Higher Education*, 4(3), 257-273.

Ting Miao

College of Arts, Media and
Technology,
Chiang Mai University,
Chiang Mai, Thailand,
15776683@qq.com

Worawit Janchai

College of Arts, Media and
Technology,
Chiang Mai University,
Chiang Mai, Thailand,
worawit.jc@gmail.com

Anurak Panyanuwat

International College and
Digital Innovation, Chiang
Mai University,
Chiang Mai, Thailand,
aapt1951@gmail.com
