

# Development of the Monitoring and Evaluation System for the Utilization of Quality Assessment Results to Enhance the Quality of Basic Education institutions in Thailand

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## Abstract

The purpose of this research and development was to develop the monitoring and evaluation system for the utilization of quality assessment results to enhance the quality of basic education institutions in Thailand. Sources of study included 94 education institution directors, administrators and related persons in 12 education institutions, and administrators and related persons in 3 education institutions that tried out the system. Research instruments consisted of open-ended questionnaire, interview form, and system's quality assessment form. Data analysis included content analysis, mean and standard deviation. Results were as follows: 1) Institutions applied the assessment results to improve the quality via setting up plans/projects/activities that build up strengths and overcome weaknesses. The major barriers involved vague and unclear recommendations which did not fit the context of institutions and hard to implement, including, did not have systematic monitoring and evaluation procedures. Moreover, institutions required the monitoring and evaluation system that integrate well with the regular work, clear procedures with continuity. 2) The developed system called “PAR-PAS M&E System” that revealed attributes according to four major principles: PARTicipatory, Amicability, Prosperity, and Sustainability. That consisted of five components: environment, input, process, outcome, and feedback. 3) The PAR-PAS M&E system had the highest level of quality according to the four standards. Average scores ranged from 4.65 to 4.78. The standard with the highest level was the utility standard, the average score was 4.78, that were followed by the accuracy standard, the propriety standard, and the feasibility standard, the average score were 4.70, 4.69, and 4.65 consecutively.

**Keywords**— monitoring and evaluation system, utilization of quality assessment results, education institution quality development, basic education institutions

## INTRODUCTION

The administrative regulations act of the Ministry of Education, B.E. 2562, Section 44, provides for decentralization the administration in academic, budget, personnel management and general administration to the education area board, education service area office, and education institutions. In this regard, consideration shall be given to the independence and flexible administration of the education service area office and the education institutions. (Ministry of Education, 2019)

In order to monitor and assess the quality of education institutions, the national education act of 1999 (Ministry of Education, 2010) stipulates that education standards and education quality assurance systems are set up at all levels and types of education. By requiring education at all levels to have a quality assurance system within education institutions operated by education institutions and/or agencies and external quality assessment conducted by the Office for National Education

Standards and Quality Assessment (Public Organization) (ONESQA). The internal quality assurance system and the external quality assessment are aimed at assessing to develop education institutions to meet education standards. The education institutions should utilize the assessment results and recommendations obtained from the assessment to improve the quality and raise the education standards by applying the results of both internal and external quality assessments to form an education quality improvement plan for education institutions.

Utilizing the assessment results and recommendations to be useful, it is important that all education institutions take action to lead to quality improvement and to raise the standards of education institutions to meet the goals of the assessment for development. However, by monitoring the implementation of the assessment results for the development of education quality of education institutions by the Office for National Education Standards and Quality Assessment (Public Organization) (2013) found that education institutions were not sufficiently utilizing the assessment results to improve the quality. This may be due to 1) education institutions did not know how to utilize the assessment results or did not realize the necessary of utilizing the assessment results, 2) the education institutions committees and the agencies under the jurisdiction lacked supervision and monitoring of the education institutions' operations, and 3) institutions staffs did not realize the necessary of utilizing the assessment results or did not cooperate in bringing the results of the assessment to improve or make an education quality improvement plan.

Therefore, in order to solve the problem of utilizing the assessment results as mentioned above and creating a mechanism for the real use of the assessment results should be monitored and evaluated for the utilization of the quality assessment results to improve the quality of education institutions carried out by those involved within the education institutions.

Monitoring and evaluation is a development mechanism that is a combination of the monitoring process and the evaluation process. Monitoring is a system for collecting information of operations for feedback. The evaluation is an operations and performance audit to determine value. Monitoring and evaluation help project managers and operators know how well the project has achieved its objectives and goals, and provide information that demonstrates the successes, advantages, weaknesses, and improvement guidelines. This allows for more efficient management of plans and projects. Therefore, monitoring and evaluation should be carried out in a systematic manner by integrating the sub-assemblies of both monitoring and evaluation to achieve coordination with common goals.

Therefore, the researcher is interested in developing the monitoring and evaluation system for the utilization of quality assessment results to enhance the quality of basic education institutions. Users, consisting of stakeholders at the institution level, collaborate according to their own structure and roles to use the results of the quality assessment to enhance the quality of institutions according to the education standards.

### **Research Objectives**

The purpose of this research was to develop the monitoring and evaluation system for the utilization of quality assessment results to enhance the quality of basic education institutions in Thailand, and it was divided into three specific objectives as follows:

1. To study state, problems and needs in the utilization of quality assessment results to enhance the quality of basic education institutions, including state, problems and needs in the monitoring and evaluation of the utilization of quality assessment results to enhance the quality of basic education institutions.
- 2) To develop the monitoring and evaluation system for the utilization of quality assessment

results to enhance the quality of basic education institutions.

3) To try out and assess the quality of the monitoring and evaluation system for the utilization of quality assessment results to enhance the quality of basic education institutions.

### **Research Method**

This research used research and development methodology to answer specific research objectives. The research was divided into 3 phases as follows:

**1. Phase 1, Study of state, problems and needs in the utilization of quality assessment results to enhance the quality of basic education institutions, including state, problems and needs in the monitoring and evaluation of the utilization of quality assessment results to enhance the quality of basic education institutions.**

**Data sources**, the data sources in the first phase consisted of 94 education institution directors who provided information by questioning, obtained by 2-stage random sampling, and administrators and related persons in 12 education institutions who provided information by interviewing which are obtained by purposive sampling.

**Research instruments**, there are two types of instruments used: open-ended questionnaires and interview forms, concerning the state, problems and needs in the utilization of quality assessment results to enhance the quality of basic education institutions, including state, problems and needs in the monitoring and evaluation of the utilization of quality assessment results to enhance the quality of basic education institutions.

**Data analysis**, the data analysis in phase 1 consisted of content analysis, frequency, and percentage.

**2. Phase 2, Development of monitoring and evaluation system for the utilization of quality assessment results to enhance the quality of basic education institutions, consisting of:**

2.1 Study and synthesis of relevant documents and researches, including 1) education quality and development, 2) education quality assurance, 3) utilization of assessment results, 4) monitoring and evaluation, 5) system and system development, and 6) development of a monitoring and evaluation system.

2.2 “Draft” the system and manual for the monitoring and evaluation system for the utilization of quality assessment results to enhance the quality of basic education institutions, using information obtained from the study in Phase 1 and information obtained from the study and synthesis of relevant documents as mentioned in 2.1.

2.3 Quality validation of the “draft” system and manual for the monitoring and evaluation system in two standards: propriety standard; and feasibility standard by 5 experts.

2.4 Modification of the “draft” system and the manual for the monitoring and evaluation system according to the recommendations of 5 experts.

**Data sources**, there are 2 sources of data in Phase 2, consisting of 1) documents and researches relevant as mentioned in 2.1 and 2) 5 experts, 2 experts on educational measurement and evaluation, and 3 experts on education institution administration.

**Research instruments**, the research in Phase 2 used 2 types of instruments, namely 1) a form to record the essence from the study of related documents and researches, and 2) the system's quality assessment form for assessing the quality on 2 standards, propriety standard and feasibility standard. Each standard consist of 20 five-point rating scale items. It has an index of congruence of the assessment item with the

operating definition of the propriety and feasibility standard (IOC) from 0.60 - 1.00.

**Data analysis,** the data analysis in phase 2 consisted of 1) content analysis of the essence from the study of related documents and researches, and 2) mean of the results from quality assessment of the “draft” system and manual for the monitoring and evaluation system by the experts. The criterion for interpretation of the mean were as follows: 4.51-5.00 mean the highest quality, 3.51-4.50 mean high quality, 2.51-3.50 mean medium quality, 1.51-2.50 mean low quality, and 1.00-1.50 mean the lowest quality.

**3. Phase 3, Try out and assess the quality of the monitoring and evaluation system for the utilization of quality assessment results to enhance the quality of basic education institutions,** proceed as follows:

3.1 Try out the monitoring and evaluation system with 3 education institutions from different affiliation, namely education institution under the office of the basic education committee, education institution under the office of the private education commission, and education institution under the office of local administration.

3.2 Assess the quality of the monitoring and evaluation system from those involved in the try out in four standards, namely the utility standard; feasibility standard; propriety standard; and accuracy standard as well as suggestions for improving the monitoring and evaluation system.

**Data sources,** the data sources in Phase 3 consisted of education institution directors, administrators, and staffs involved in 3 schools that tried out the system.

**Research instruments,** the instrument used in phase 3 was the system's quality assessment form for assessing the quality on 4 standards, utility standard, propriety standard, feasibility standard, and accuracy standard. A totally of 17

five-point rating scale items consist of 4 items for utility standard, 4 items for propriety standard, 5 items for feasibility standard, and 4 items for accuracy standard. It contains an index of congruence of the assessment items with the operating definitions of the utility standard, propriety standard, feasibility standard, and accuracy standard (IOC) from 0.60 - 1.00.

**Data analysis,** Phase 3 research used mean, standard deviation, and content analysis of the results from quality assessment of the monitoring and evaluation system by those involved in all 3 education institutions that tried out the system. The criterion for interpretation of the mean were as follows: 4.51-5.00 mean the highest quality, 3.51-4.50 mean high quality, 2.51-3.50 mean medium quality, 1.51-2.50 mean low quality, and 1.00-1.50 mean the lowest quality.

## Research Results

Research findings were shown as follows:

**1. The results in Phase 1, a study of state, problems and needs in the utilization of quality assessment results to enhance the quality of basic education institutions, including, state, problems and needs in the monitoring and evaluation of the utilization of quality assessment results to enhance the quality of basic education institutions.**

The results of the questionnaire of 94 education institution directors and interviews with administrators and related persons in 12 education institutions can be summarized as follows:

**1.1 The results of the study of the state, problems and needs in the utilization of quality assessment results to enhance the quality of basic education institutions.**

**1.1.1 The state of utilization of the quality assessment results to enhance the quality of basic education institutions.**

Education institutions applied the quality assessment results and recommendations to

improve students, teachers, and education institution administration via setting up strategic plan/ education institution development plan/ academic year action plan/ fiscal year action plan/ project/ activity that help strengthen strengths and overcome weaknesses or points that should be developed or indicators that are not standardized by analyzing the cause and assigning responsible persons, then proceed according to the plans set forth in the PDCA process. In addition, the recommendations obtained from the assessment are also used to support and build understanding of the education institution by organizing a meeting to clarify to relevant parties, including committees of education institutions, communities, parents, administrators of agencies and personnel.

### **1.1.2 The problems in the utilization of the quality assessment results to enhance the quality of basic education institutions.**

Most education institutions have no problem in utilizing the quality assessment results. As for the education institutions that had problems in utilizing the assessment results, they indicated that there were problems with broad recommendations, lack of clarity, inconsistent with the context of the education institution, being abstract and hard to put into practice as well as problems with some assessment indicators that may not truly reflect the quality. There are also problems with budgets because some recommendations require budget support, such as teacher training, procurement of technology materials and innovation, including the problem of personnel changes/migration, resignation, that resulting in a lack of understanding and continuity in work.

### **1.1.3 The needs in utilization of the quality assessment results to enhance the quality of basic education institutions.**

Education institutions viewed that the effective utilization of quality assessment results for quality development must be the operational use. Plans/projects/activities were developed to

run in the improvement of education institutions quality. It also needs the results of quality assessment, strengths, weaknesses, and recommendations for development are clear to help education institutions to understand themselves better.

## ***1.2 The results of the study of state, problems and needs in the monitoring and evaluation of the utilization of quality assessment results to enhance the quality of basic education institutions.***

### **1.2.1 The state of monitoring and evaluation of the utilization of quality assessment results to enhance the quality of basic education institutions.**

Education institutions indicated that the utilization of the quality assessment results was monitored and evaluated periodically to know the operating results and problems that arise to be utilized in the improvement of work. This will allow the operation to be done in a timely manner, with monitor from observations, meetings, inquiries, discussions, and the use of Professional Learning Community (PLC). In addition, education institutions also appoint persons responsible for monitoring and evaluation, such as the person in charge of the project leader or internal quality assessment committee.

### **1.2.2 The problems in monitoring and evaluation of the utilization of quality assessment results to enhance the quality of basic education institutions.**

Most education institutions stated that a major problem is the unsystematic monitoring and evaluation procedures and the lack of empirical evidence. Due to the lack of a systematic, clear and continuous model, there is no systematic planning and implementation of monitoring and evaluation. As a result, tracking is not useful in the real development of education institutions. The next problem is personnel lacking knowledge and awareness of the monitoring and evaluation, including, lacking

responsibility, delayed submission of work, requiring repeat monitoring, not providing information or providing incomplete information.

### **1.2.3 The needs in monitoring and evaluation of the utilization of quality assessment results to enhance the quality of basic education institutions.**

Most education institutions required the monitoring and evaluation system that has clear principles and goals. It is integrated well with the regular work, not to increase workload. There is a systematic planning, clear tools or document forms that are easy to use, and monitoring and evaluation in a friendly manner were required. There is a continuous manner, with monitoring and evaluation before, during, and after the operation as well as having to determine the responsible person. The results of the system will be used to improve the operation immediately.

## **2. The results in Phase 2, the development of the monitoring and evaluation system for the utilization of quality assessment results to enhance the quality of basic education institutions.**

The researcher developed the monitoring and evaluation system by applying the essentials from the study and synthesizing relevant documents, namely 1) education quality and development, 2) education quality assurance, 3) utilization of assessment results, 4) monitoring and evaluation, 5) system and system development, and 6) development of a monitoring and evaluation system. Also, the results of the study in Phase 1 were to be used in system design by defining the developed system name that “PAR-PAS Monitoring and Evaluation System” or “PAR-PAS M&E System”. It is to reflect the key characteristics of a monitoring and evaluation system that adheres to 4 principles: 1) *PAR*ticipatory monitoring and evaluation, 2) Monitoring and evaluation for *Prosperity*, 3) *Amicability* monitoring and evaluation, and 4) monitoring and evaluation for *Sustainability* quality

improvement. The developed PAR-PAS M&E System consists of 5 components as follows:

1) Environmental component, it is a factor outside the education institution that affects the institution. It consists of an internal quality assurance system and an external quality assessment which focusing on assessment for the development of education institutions. Including, external factors that education institutions cannot control, such as the problem of the spread of COVID-19, the announcement of changes in school opening-closing schedule.

2) Input component, it is the input of the system that consists of the education quality assessment results, the education institutions plans/projects/activities to develop education quality, the manual for the monitoring and evaluation system, and the understanding and awareness of personnel in education institutions on the importance of monitoring and evaluation.

3) Process component, it is an operational process in the system that follows the PDCA cycle of quality management, consisting of planning in monitoring and evaluation, implementation of monitoring and evaluation plans, analysis of monitoring and evaluation results, and the use of monitoring and evaluation results.

4) Output component, it is a result of the process of monitoring and evaluation, consisting of a report on the education development monitoring, a report on the education development evaluation, and the guidelines for sustainable education quality development.

5) Feedback component, it communicates the findings of each component including the environmental component, input component, process component, and output component in order to improve and develop each component to be more effective and efficient, and to provide feedback on monitoring and evaluation results. It is also including methods or guidelines for developing and improving the utilization of quality assessment results to

enhance the quality of basic education institutions for those involved in education institutions, which will lead to sustainable education institution quality development.

The quality validation of the PAR-PAS M&E System by 5 experts revealed that it had the highest level of quality according to the two

standards, propriety standard, and feasibility standard. Item average scores ranged from 4.60 to 5.00.

The PAR-PAS M&E System was shown in figure 1.

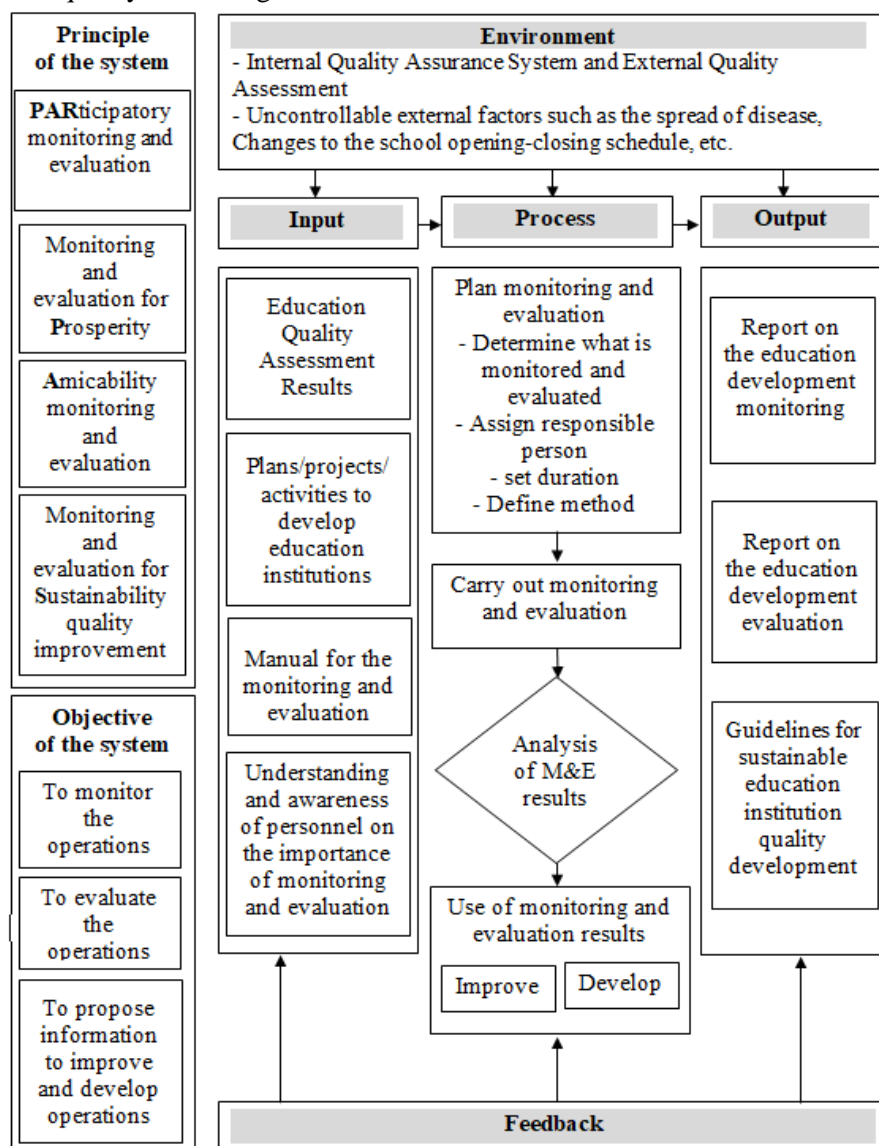


Figure 1 PAR-PAS M&E System

### 3. The results in Phase 3, the try out and assess the quality of the monitoring and evaluation system for the utilization of quality assessment results to enhance the quality of basic education institutions.

The researcher applied the PAR-PAS M&E System that has been validated and modified

according to the recommendations of experts to try out with 3 education institutions from

different affiliation, namely education institution under the office of the basic education committee is Bang Bua School, education institution under the office of the private education commission, namely Lek Komet Anusorn School, and education institution under the office of local

administration, namely Nakhon Non Wittaya 3 School. The results of the try out and the quality assessment are as follows:

### ***3.1 Results of the try out of PAR-PAS M&E System.***

#### **3.1.1 Results of the PAR-PAS M&E System at Bang Bua School.**

Education Quality Assessment Results of Bang Bua School found that the important point that should be developed is the student's achievement. The school therefore agreed that two projects should be organized, namely, the project to develop student quality towards education standards and education achievement enhancement projects. It was found that the schools have set out 31 activities indicating the use of the quality assessment results to improve the quality of the school, 8 of which were completed. Activities were adjusted and canceled due to the epidemic problem of COVID-19, 9 activities and 14 activities, respectively.

#### **3.1.2 Results of the PAR-PAS M&E System at Lek Komet Anusorn School.**

The results of the education quality assessment of Lek Komet Anusorn School, it was found that the important development point was to organize activities aimed at raising the level of achievement with continuous and serious practice. Therefore, the school deems it necessary to have the preparation of a work plan for improving the quality of education consists of 4 projects as follows: 1) Project to develop skills towards excellence, 2) Moral school project, 3) Sports, good health, and safe food project, and 4) Teaching-learning technology project (Maker Science). A total of 20 school quality improvement activities were planned, 9 activities were completed, 9 activities were adjusted and 2 were canceled due to the spread of COVID-19, respectively.

#### **3.1.3 Results of the PAR-PAS M&E System at Nakhon Non Wittaya 3 School.**

The results of the education quality assessment of Nakhon Non Wittaya 3 School revealed that the school has set the direction/guidelines for development by focusing on developing and promoting academic skills in order to raise the school's academic achievement and test results to a high level. The school therefore agreed that there should be the project to promote the development of teaching and learning management for all learning subjects and the project to enhance learning achievement. It was found that the schools had identified 32 activities showing the use of the quality assessment results to improve the quality of the school, 19 of which were completed and 13 activities were canceled due to spread of COVID-19 problems.

### ***3.2 The results of the quality assessment of the monitoring and evaluation system for the utilization of quality assessment results to enhance the quality of basic education institutions.***

The researcher assessed the quality of PAR-PAS M&E System in four standards, namely, utility standard, propriety standard, feasibility standard, and accuracy standard by a total of 30 people those involved in the tried out of the system. It can be concluded that PAR-PAS M&E System is a system with the highest level of quality in all 4 standards according to the criterion for interpretation of the mean as mentioned above in the data analysis 3.2. Average scores of quality assessment ranged from 4.65- 4.78. With the highest quality standard being, the utility standard had an average value of 4.78. That was followed by the accuracy standard, propriety standard, and feasibility standards, the average score of quality assessment were 4.70, 4.69, and 4.65 consecutively. The results of the quality assessment of PAR-PAS M&E System was shown in table 1.



**Table 1**  
*The results of the quality assessment of PAR-PAS M&E System*

Standard	Average score	Level of quality
Utility standard	4.78	highest
Propriety standard	4.70	highest
Feasibility standard	4.69	highest
Accuracy standard	4.65	highest

### Discussions

This research has developed the monitoring and evaluation system for the utilization of quality assessment results to enhance the quality of basic education institutions. The system was developed according to the steps obtained from the study and synthesis of the system development process: Stair & Reynolds (2010); Biggs, Birks & Atkins (1980); and Edwards (1985), resulting in a four-step system development process: Step 1 System Analysis, it is a study to analyze the state of the system that is today and what it looks like. Are there any obstacles in using the system? If there will be improvements to suit, how should there be guidelines?. Step 2 Design and Development of the system, it is the relationship analysis or design of system components and checking the suitability of the designed system before being put into practice. In order for the new system developed to be suitable for implementation. Step 3 Implementation of the system, it is the implementation of the developed system for real trials, and step 4 System Assessment, it is considered appropriate after the system is put into practice to confirm that the developed system is suitable for application.

Monitoring and evaluation system developed as an open system which takes into account the external environment that will affect the system. This is because basic education institutions are part of the education system according to the Ministry of Education Act B.E.2546. The organization and division of the Ministry of Education is divided into two parts, the central and the education area by separating the important functions that are policy duties and operational duties. The center is responsible

for formulating policies, plans, standards, supervising, and monitoring and promoting

support. Almost all of the practices were in each education area by organizing the administration of the education area into 2 parts, namely the Office of Educational Areas; and education institutions that provide basic education (Ministry of Education, 2003). Therefore, the administration of education institutions must be in accordance with the central policy that will affect the monitoring and evaluation system. In addition, education institutions are also affected by external factors that cannot be controlled. For example, the current epidemic of COVID-19 is a serious problem.

Using an open system concept, the developed monitoring and evaluation system consists of five aspects: environment, input, process, output and feedback. This is consistent with the concepts of Robbins (1990); Lunenburg & Ornstein (2012), and Schoderbek, Schoderbek & Kefalas (1990), who argue that the key elements of the system are harmoniously composed of five elements: 1) inputs, including people, materials, budgets and information, 2) transformation process, 3) Output, 4) Feedback, it is information about the production or process that determines the inputs for the next operation, and 5) the environment surrounding the organization which consists of society, politics and economic systems. There is a consensus of the experts who check the quality of the developed monitoring and evaluation system that such a system is feasible and appropriate for implementation in education institutions at the highest level.

In addition, the developed monitoring and evaluation system as a system within the education institution that users which consists of stakeholders at the education institution level cooperate according to their own structure and roles according to the principle of decentralization in education management to the education area. Education institutions and local government organizations is allowed to have the power to make decisions at the practical level without having to wait for orders from the supervisory authority. This is in line with the principle of decentralization which has two key components: autonomy and participatory decision-making (Sararattana, 2000). The monitoring and evaluation process has an operational process in accordance with the PDCA cycle, which is in accordance with the requirements of the Ministerial Regulation on Educational Quality Assurance B.E.2561. In item 3 shows that each education institution has a system of education quality assurance within the education institution by setting the education standards to be in accordance with the education standards of each level and type of education as well as to prepare a plan to develop education management of education institutions. It is also focus on quality according to education standards and to implement the plan arrange for the evaluation of the quality within the education institutions; monitor on the results of the implementation to develop the education institutions to achieve quality according to the education standards.

The results of the quality assessment revealed that the PAR-PAS M&E System is a quality system that meets all 4 standards, namely, utility standard, propriety standard, feasibility standard, and accuracy standard at the highest level. This shows that the PAR-PAS M&E System meets the standards of the Joint Committee on Standards for Educational Evaluations (1994).

## Recommendations

### Recommendations for applying the research results

1 ) Affiliated agency should predispose the education institutions to utilize the assessment results to enhance their quality, such as by establish specific strategies or goals for improving education institution quality according to the results of the education quality assessment. There should be continuous monitoring and evaluation of education institutions to give advice, promote support, and jointly develop or solve problems as well as giving morale and encouragement to education institutions. This will lead to further development and improving of the quality of education. Besides, it may be carried out in the form of a joint development network with related organizations such as the Provincial Education Office and higher education institutions.

2) Office for National Education Standards and Quality Assessment (Public Organization) (ONESQA) should be required to have assessment of education institutions' development in relation to the assessment results or recommendations that education institutions have received from external assessments in the previous round, so that each round of external quality assessment has a continuous relationship and is truly an assessment to improve the quality of education institutions.

3 ) Education institutions can apply PAR-PAS M&E System to monitor and assess their utilization of quality assessment results, there is clear evidence of quality of PAR-PAS M&E System from the try out phase in this research. Those involved should clearly study and understand the system and the guidelines in the manual and complete compliance with the established guidelines. The administrator of the education institution should arrange a meeting to clarify and assign relevant personnel to study and understand the manual of the system. It should jointly plan the monitoring and evaluation with those involved in the education institutions, jointly solve problems as well as to give morale and encouragement to those involved in the system, and to promote and support the resources as needed to implement the project/ activity. Cooperation should be given to all processes from planning,

monitoring and evaluation, using of monitoring and evaluation results, and contribute information, opinions and suggestions.

### Recommendations for further research

- 1) There should be research to study the impacts arising from the use of PAR-PAS M&E System in order to use the results to develop a better monitoring and evaluation system.
- 2) There should be research to develop information systems or programs or applications linked to the internet system, to be able to store, process and present information and provide feedback to stakeholders with links to other databases of education institutions to help facilitate those involved in not having to record redundant data as well as having access to real-time monitoring and evaluation systems anywhere, anytime.

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