

## Developing a Plan/Project Evaluation Model at Secondary Schools

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**Abstract:** This study aimed to examine conditions of problems and needs of secondary schools for plan/project evaluation, develop a plan/project evaluation model at secondary schools appropriate to school contexts, present the results of plan/project evaluation at secondary schools using the developed plan/project evaluation model and evaluate the developed plan/project evaluation model at secondary schools and present the model. The study was conducted on the conditions of problems and needs of the schools by questioning school administration and personnel, constructing the evaluation model and by synthesizing data concerning concepts and theories, data involving conditions of problems and needs of the schools and data about focus group discussion. The evaluation model was improved according to the comments and recommendations of experts, the results of trying out the instrument in the model and according to the model evaluation results. The statistics used for analyzing the collected data were percentage, mean and standard deviation and t-test and one way ANOVA were employed for testing hypothesis. The results of the study were as follow: In the conditions of problems and needs of the secondary schools for plan/project evaluation, it was found that the secondary schools had problems of plan/project evaluation at a medium level. Also, their needs for help in solving the problems mentioned were at a medium level in every item. In developing the plan/project evaluation model at the secondary schools, the model obtained consisted of 3 stages: Evaluation preparation stage comprised appointment of the evaluation working staff, holding meetings for explaining to the evaluation working staff together with giving out evaluation.

**Key words:** Evaluation model, plan, developmental project, institutional project, informational project, model evaluation

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### INTRODUCTION

The good of education provision in human development to have quality and ability to develop themselves, community and the nation to progress try organization of training, transferring, practicing and management of leaning in continuity. Also, there must be standards of being good persons, smart persons and happy persons. There must the organization of learner centered learning, school based administration and creation of learning society. Basic education provision in education provision for the majority of the people in the country. Often, there are problems of education quality owing to the management process, particularly in evaluation and the user of evaluation results concerning

plans/projects at the school level. From a research study, it points out that in basic education institution administration the administrator is the most significant variable of the educational institution development in every aspect. It also has been found that many education institutions operate less project evaluations than in other missions. Also, evaluation at educational institutions frequently has problems of administration, coordination, data system, personnel attitude, research technique and evaluation planning (Sapianchai, 1997). However, the evaluation method has problems of determining purposes, selecting instruments, determining criteria, analyzing data, uncaredful project planning, organizational data system and coordination. For solving the problems mentioned, each educational institution must systematically develop

the evaluation process. The method used must be in accordance with what is aimed to evaluate and appropriate to the educational institution contexts. Some examples of the models of educational evaluation, which can be applied are a group model emphasizing decision making by means of systematic and natural methods and a group model emphasizing decision making on value by means of systematic and natural methods (Kanchanawasi, 1994).

The model upholding the purposes, the model responding to the needs, the model helping in decision making, the model evaluation the training efficiency and the model or paradigm emphasizing the theory (Phithiyawat, 2001). All these have currently been applied for appropriateness and have given more importance to natural and participatory evaluation. It can be seen that the evaluation models mentioned have strengths and weaknesses in themselves. There is not any single method, which is the best for what is aimed to evaluate in every case. Therefore, each school must analyze and synthesize concepts and theories of evaluation for application in appropriate to each school context. This is because most of the evaluation models are foreign ones (Chuto, 1995). One of the evaluation models, which can be well used by Thai education is, for example, Boonchom Srisa-ard (2002)'s CIPPI Model. The implementation of the mentioned evaluation models in evaluating plans/projects at secondary schools indicate that there are practical problems and most schools do not apply the concepts and evaluation models to be appropriate to the school contexts. In some cases, they do not evaluate school plans/projects, causing school administration not to have information and insufficient data for problem solving and for developing education quality at the school level. From the problems mentioned above, it is necessary to develop a plan/project evaluation model at secondary schools to be used for building quality data and information obtained from evaluation, which can help in administration and developing school education provision to be efficient. It is expected that the developed evaluation model will be in congruence with the principles and theories of evaluation, to be appropriate to the school context and the developed evaluation model will be actually implemented. This will be able to solve problems and to develop the process of school plan/project evaluation, as well as to be development of education quality at secondary schools as a whole.

## **MATERIALS AND METHODS**

**Research design :** The study of developing an evaluation model used the research and development method mixed with the exploratory research method. The research stages

were: examined conditions of problems and needs of secondary schools for plan/project evaluation. The examination was conducted by asking opinions of school administrators and teachers in the school, development the plan/project evaluation model at secondary schools. The development was conducted by synthesizing concepts and theories, data about conditions of problems and needs of the schools and data from focus group discussions and improved the model by asking experts, then tried out the evaluation instruments based on the model, Implemented the developed plan/project evaluation model at secondary schools in evaluation within the schools in the sample and reported the evaluation outcomes.

The model was developed by implementing the constructed evaluation model in actual evaluation at 3 schools in the sample in phases of evaluation and the evaluation outcomes were summarized, evaluated the developed plan/project evaluation model at secondary schools and model was presented. This was operated by asking opinions and interviewing with the plan/project evaluation working-staff at those schools, which used the evaluation model mentioned

**The population and sample:** The population used in this study consisted of 9 experts in making comments and providing recommendations involving the evaluation model, evaluation instruments based on the model and research instruments from the purposive selection according to the determined qualifications, 432 administration, section heady, learning strand heads and representatives of teachers at the secondary schools under the Office of Nakhon si Thammarat Educational Service Area.

The sample used in the study consisted of: questionnaire respondents involving conditions of problems and needs of the secondary schools for plan/project evaluation comprising totally 97 administrators and teachers in the sample selected from 34 schools. The sample for focus group discussion on plan/project evaluation at the school and on the conceptual framework of the drafted evaluation model comprising 8 school administrators and personnel involved, purposively selected according to the determined qualifications, the sample for trying out the instruments for the model evaluation comprising totally 57 administrators and teachers, who tried out the evaluation model, purposively selected from 11 schools, the sample for implementing the developed plan/project evaluation model in actual evaluation and in evaluation

the evaluation model comprising plan/project evaluation working-staff at the secondary schools in the sample with 3 small-sized, medium-sized and large-sized schools, with 18 teachers, who used and evaluation the model. The evaluation instruments based on the model consisted of 9 evaluation forms on operation according to the plan/project and 3 interview forms.

The research instruments for developing the model consisted of a questionnaire on conditions of problems and needs of the secondary schools for plan/project evaluation, a questionnaire for experts concerning the plan/project evaluation model at secondary schools and research instruments and the model evaluation instruments consisting of 5 questionnaires and 1 interview form.

**Data analysis:** The collected data were analyzed using SPSS for Windows Program as follows: data about the condition of problems and needs of the secondary schools were analyzed using basic statistics. Data about opinions of the experts were analyzed by finding out Index of Congruence (IC) and mean ( $\bar{x}$ ). Data about trying out the instruments were analyzed to find out their reliabilities using alpha coefficients and discriminating powers of the questionnaires using Pearson's product moment correlation. Data about plan/project evaluation at the schools using the developed model were analyzed using basic statistics and Data about the model evaluation by testing the hypotheses using t-test and One-way ANOVA (Srisa-ard, 2002).

## RESULTS

In the conditions of problems and needs of the secondary schools for plan/project evaluation, it was found that the characteristics of preparation for readiness of the schools general characteristics of plan/project evaluation and operation of plan/project evaluation had problems at a medium level and had needs for help in solving the problems mentioned at a medium level in every item.

It was also found that most of the secondary schools did not have plan/project evaluation; lacked techniques, instruments and particular personnel for evaluation. More importantly, the administrative section did not realize the importance of plan/project evaluation.

In developing the plan/project evaluation model at the secondary schools, the evaluation model obtained consisted of components in there 3 stages: the stage of preparation for evaluation consisted of evaluation

working-staff appointment, meeting for explanation to the evaluation working-staff together with handing out the evaluation handbook and documents involved and making schedules for evaluation operation.

The stage of evaluation operation consisted of data collection, analysis, interpretation of outcomes and summarization of operational data analysis outcomes, operation according to the plan/project in each aspect and each plan/project, comparison of data analysis outcomes with minimum criteria for correction and re-evaluation in case the data analysis outcomes did not meet the standard requirements and making conclusions on evaluation outcomes and the stage of reporting on the plan/project evaluation outcomes as a whole consisted of presenting the outcomes of operation according to the plan/project of each school in each aspect and each type of the project in the type of table in supplement to description and reporting the outcomes to the personnel involved.

The development evaluation model had components and evaluation and evaluation instruments, which were in congruence with the principles and theories in every item, appropriate to the school context at a high level in every item and context at a high level in every item and feasible to performance at a high level in every item. All of the 9 evaluation instruments according to the model had discriminating powers ranging 0.47-0.91 and alpha coefficient reliabilities ranging 0.94-0.96. These are regarded as being appropriate. The developed plan/project evaluation model at the secondary schools is shown in Fig. 1.

In plan/project evaluation outcomes using the developed model at small-sized, medium-sized and large-sized secondary schools in evaluation Phases by the evaluation working-staff, it was found that the operation of the schools involving plan/project was mostly at the level of meeting the evaluation standard requirements according to the model.

In the outcomes of evaluation the developed model by the evaluation working-staff, it was found that the characteristics of the model and the use of the model were appropriate at a high level in almost all of the items except in the condition of actual performance in evaluation according to the model, which was appropriate at a medium level.

When compared with the model evaluation outcomes in evaluation Phases at schools with different sizes, it was found that the evaluation outcomes were not different.

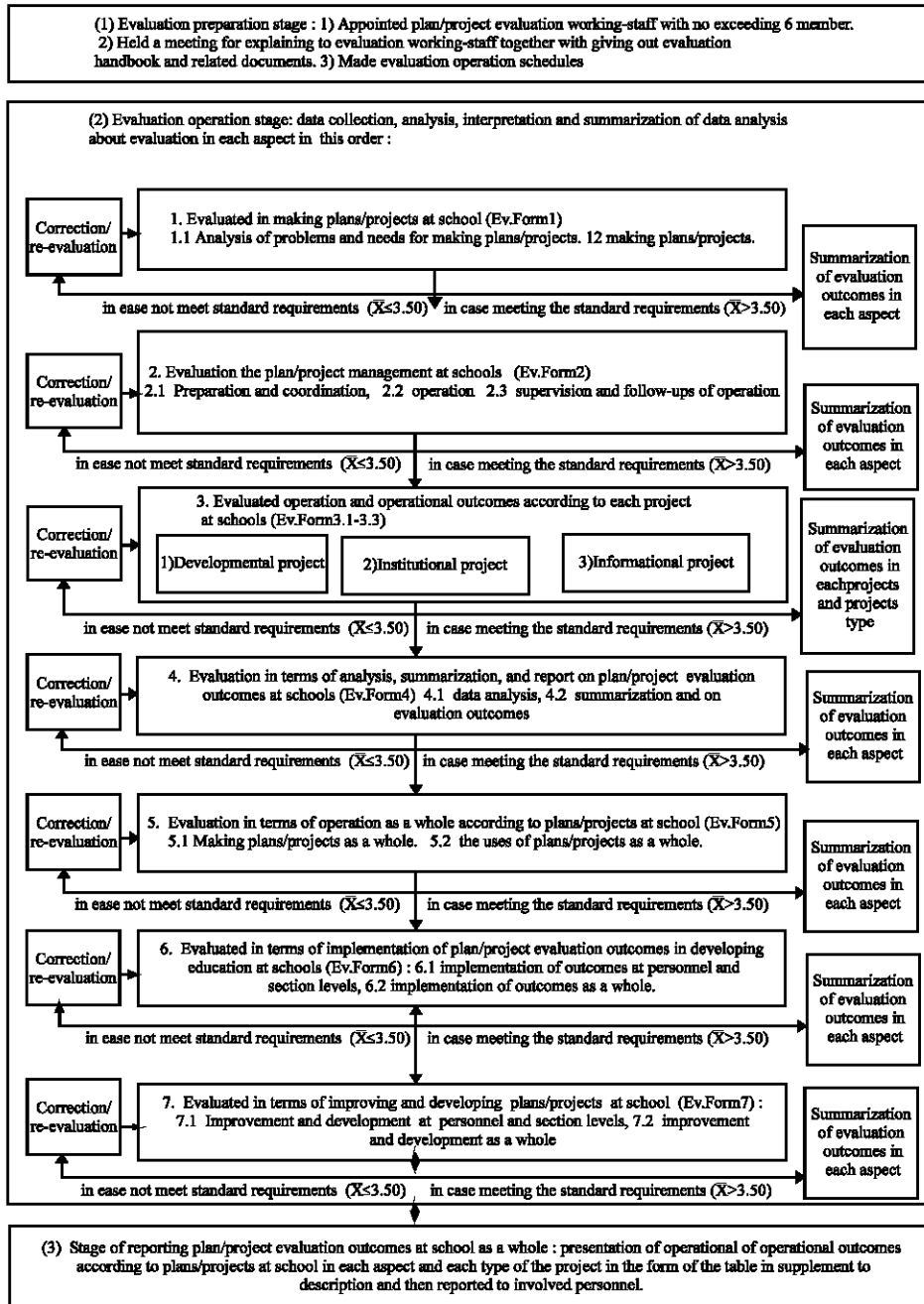


Fig.1: A plan/project evaluation model at secondary school

### DISCUSSION

From the results of examining the conditions of problems and needs for plan/project evaluation of the secondary schools, it was found that most of these schools had problems at a medium level and had needs for solving the problems mentioned at a medium level. This indicates that the plan/project operation at the schools has not achieved the purposes as it school be. It is

because there are problems of practices in terms of technique, method and process of plan/project evaluation at the schools. Although, the schools have problems at a medium level, it is still regarded as having problems, which need solving. Thus agencies involved should consider seeking ways to help with solving the problems mentioned in order for the schools to have clear plan/project evaluation system and process, resulting in development of education quality of the schools in the

future. From the results of developing plan/project evaluation model, the following issues should be discussed, in the plan/project evaluation model design at these secondary schools, the researchers conducted the study by synthesizing concepts and theories from documents and related literature, data involving conditions of problems and needs of the schools and data from focused group discussion of school administrators and personnel involved. The type of the evaluation model was evaluation of the whole system of plan/project evaluation at the schools. The evaluation model was designed based on the hypotheses and then model was then further improved. The operation mentioned is in congruence with the concept of Srisa-ard (2002). For the developmental research in the model which can be concluded that this developmental research is a new type of research. It is a guideline for making knowledge were complete, clear and systematic. Also, it is in accordance with Willer (1967)'s concept of building the model who states that there must be construct model and binding out validity and operation by following the definition that the model is a series of abstract descriptions involving phenomena in which we are interested to define or describe the characteristics easy to understand (Bardo and Hardman, 1982). It consists of characteristics of structured relationships of the variables. This is in congruence with the concept of Brown and Moberg (1980), who say that a model should have components of environment, technology, structure and processes of management and decision-making. Also, it is in accordance with the concept concerning the CIPPI Model of evaluation designed by Srisa-ard (2002). He concludes that the must be evaluation in terms of context, input, process, product and impact. Furthermore, the characteristics of the constructed evaluation model are in congruence with domestic and foreign research studies concerning model construction. In brief, the evaluation model construction must have operation on: primary data study, model design according to hypotheses with details involving operational stages, methodology and evaluation instruments with checking and try-out and model evaluation, all these for making the evaluation model more complete and quality.

For developing the constructed plan/project evaluation model at the secondary schools, the operational method was by improving the stages, methods and evaluation instruments by following the experts' comments and recommendations based on the results of trying out the evaluation model and the results of model evaluation from the stages of operation mentioned. It is regarded as the process of systematic development of the evaluation model. Also, it is adequate reasons for explaining appropriateness and completeness of the developed evaluation model. The method mentioned is in congruence with domestic and foreign

research studies in the evaluation model development, which can be concluded that the stages of model development include: model checking, model try-out and model evaluation, improvement and development. It can be seen that the stages and methods of model development mentioned are in accordance with the method of model development of the plan/project evaluation model at the secondary schools in this study. The constructed evaluation instruments, evaluation data collection, analysis, summarization and report on evaluation outcomes based on the plan/project evaluation model at the secondary schools were operated by reviewing the designed methods and stages of evaluation and examining the concepts and theories involving construction and development of the evaluation instruments. The characteristics of the constructed instruments are in accordance with the concept of Potisuwan (2000), who explain the types of projects.

It can be concluded that there are 3 types of these projects: developmental projects, institutional projects and information projects. The researchers implemented this concept in designing evaluation instruments according to each type of the project. This is in congruence with the concept of Popham (1991), who states that each evaluation instrument must have validity, reliability, discrimination, objectivity, difficulty, exemplary, searching fairness and efficiency. The stages of developing, evaluation instruments are in accordance with the concept of Maneelak (2003), who says that there are 8 stages: determine evaluation stages, define what are needed to be evaluation, select instrument types, construct instruments, try out instruments, analyze for instrument quality, improve instruments and make hand-book for instrument use. The methods of evaluation based on the constructed model are in congruence with the concept of Worthen and Sanders (1987), involving these 6 evaluation methods: evaluation method according to purposes, evaluation method for managements, method of evaluating consumers, evaluation method by experts, method of evaluation by considering arguments and method of natural and participatory evaluation. As for data collection, analysis, interpretation and summarization of data involving evaluation according to the developed evaluation model, the operation is in congruence with the concept and theory concerning the principle of evaluation data analysis of Srisa-ard (2002). For the results of plan/project evaluation using the developed model at the schools in the sample in evaluation phases by the evaluation working staff, it was found that the operation concerning plans/projects at the schools was appropriate at a high level and most of the plans/projects passed the evaluation standard requirements. The results of evaluation in evaluation phases were not different. It is so because these schools do not have operational

improvement according to the plans/projects after evaluation in phases and there are limitation of personnel, process of supervision and follow-ups and operational development and experience in plan/project evaluation as a whole.

For the results of evaluation of the developed plan/project evaluation model, which have been found that the characteristics of the model and the use of the model are mostly appropriate at a high level because the evaluation model is designed by synthesizing the concepts and theories and opinions of the personnel at the schools. This is in congruence with the concepts and theories and is appropriate to the school context. When the results of model evaluation are compared in phases in the sample of the schools with different sizes, it is found that there was not a difference. The may be because the schools in the sample do not have different contexts. In other words, the developed evaluation model is appropriate to all sizes of the schools.

### **CONCLUSION**

This research in developing the plan/project evaluation model at secondary schools can provide a plan/project evaluation model at the secondary schools, which is in congruence with the principle and theory and is appropriate to the school context. The characteristics of the model are the evaluation as a whole of the plans/projects at the schools. There are methods of evaluation by personnel participation at the schools. Also, there are evaluation instruments convenient in use. When the model is implemented in actual evaluation at the school, quality data/information can be obtained for administrative decision-making.

### **RECOMMENDATIONS**

Recommendation for implementing the research results are: as the research result indicating that the plan/project evaluation results are important to school administration, each school should evaluate plan/project as a whole according to the developed model once a semester. The implementation of the developed model can evaluate and summarize the evaluation results these levels: the school level as a whole, the work section level, the learning strand level and the level of personnel responsible for the project. These are to improve and develop the operational quality at the levels mentioned. There should be more training and promotion of participation of the personnel involving evaluation in order for the process of plan/project evaluation to have development in continuity. The use of the evaluation results should be earnestly promoted. Recommendation

for conducting further research include: research in the uses of plan/project evaluation modes at other levels of the schools should be conducted. The components/factors and variables of the plan/projects at the schools should be analyzed. The factors affecting evaluation efficiency. The uses of evaluation results and management of evaluation results at the schools should be studied.

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