

## CHAPTER 4

### Result of the analysis

This research has 3 main objectives; 1) To develop factors and indicators for internal quality assurance of special educational school. 2) To develop form and handbook for internal quality assurance of special educational school. 3) To study the result of using forms and handbooks for internal quality assurance of special educational school. Result of the analysis will be shown by dividing into 3 parts in the following order;

#### **Part 1: Result of factor development and indicators for internal quality assurance of special educational school**

For presentation of data analysis result, factor development result and indicators for internal quality assurance of special educational school will be presented in the following order;

1.1 Result of factor development and indicators for internal quality assurance of special educational school.

1.2 Result of factor quality test and indicators for internal quality assurance of special educational school.

#### **Part 2: Result of form development and handbook for evaluating internal quality assurance of special educational school**

For presentation of data analysis result, form development result and handbook for evaluating internal quality assurance of special educational school as well as result of suitability and possibility tests for the implementation of form and handbook will be presented in the following order;

2.1 Result of form development and handbook for evaluating internal quality assurance of special educational school.

2.2 Result of suitability and possibility tests for the implementation.

### **Part 3: Result of testing form and handbook for evaluating internal quality assurance of special educational school**

For presentation of data analysis result, result of testing form and evaluation handbook as well as result of internal quality assurance of special educational school will be presented in the following order;

3.1 Result of testing form and handbook for evaluating internal quality assurance of special educational school.

3.2 Result of quality assurance for form and handbook for evaluating internal quality assurance of special educational school

For the same understanding in the interpretation of meanings and result of data analysis in this research, some symbols and abbreviations will be used to present information and result of data analysis as follows;

Mean	stands for Average
SD	stands for Standard Deviation
b	stands for Factor loading value
SE	stands for Standard error value
R <sup>2</sup>	stands for Coefficient of determination
FS	stands for Factor Score Regressions
df	stands for Degrees of freedom
P	stands for Probability
$\chi^2$	stands for index to measure consistency of Chi-Square statistics
GFI	stands for Goodness of Fit Index
AGFI	stands for Adjusted goodness of Fit Index
RMR	stands for index for average square root of fraction

$e_i$	stands for deviation value of observable variables
○	stands for latent variables
□	stands for observable variables
→	stands for causal relationship between latent and observable variables
IQAS	stands for evaluation of the internal quality assessment of special educational school
QAP	stands for readiness preparation before the assessment
QAP <sub>1</sub>	stands for the appointment of person who is responsible for the assessment
QAP <sub>2</sub>	stands for educating about the assessment
QAP <sub>3</sub>	stands for planning of assessment procedure
QAI	stands for assessment procedure
QAI <sub>1</sub>	stands for collecting data of assessment
QAI <sub>2</sub>	stands for analyzing data of assessment
QAI <sub>3</sub>	stands for summarizing assessment
QAI <sub>4</sub>	stands for examining assessment
QAR	stands for reporting assessment
QAR <sub>1</sub>	stands for presenting assessment result
QAR <sub>2</sub>	stands for making a report for assessment result
QAR <sub>3</sub>	stands for informing assessment to people who are related to assessment

**Part 1: Result of factor development and indicators for internal quality assurance of special educational school**

Factors and indicators for evaluating internal quality assurance of special educational school were developed from the synthesis of factors and indicators from self-assessed document from special educational school as well as some researches in Thailand and overseas. It was also tested for suitability in implementation by the school presidents, vice principals of the academic department, heads of the quality assurance department, teachers and officers who were responsible for internal quality assurance

throughout Thailand. The total number was 105 people. Factors and indicators for evaluating internal quality assurance of special educational school are analyzed from structural precision test, factor suitability test and indicators for evaluating internal quality assurance. Using Confirmatory Factor Analysis method can be summarized as follows;

**1.1 Result of factor development and indicators for evaluating internal quality assurance of special educational school.** There are 3 factors and 10 indicators as the following;

**Factor 1: Readiness preparation before assessment (QAP)**

Indicator 1 Appointment of person who is responsible for the assessment (QAP<sub>1</sub>)

Indicator 2 Educating about the assessment (QAP<sub>2</sub>)

Indicator 3 Planning of assessment procedure (QAP<sub>3</sub>)

**Factor 2: Assessment procedure (QAI)**

Indicator 1 Collecting data of assessment (QAI<sub>1</sub>)

Indicator 2 Analyzing data of assessment (QAI<sub>2</sub>)

Indicator 3 Summarizing assessment (QAI<sub>3</sub>)

Indicator 4 Examining assessment (QAI<sub>4</sub>)

**Factor 3: Reporting assessment (QAR)**

Indicator 1 Presenting assessment result (QAR<sub>1</sub>)

Indicator 2 Making a report for assessment result (QAR<sub>2</sub>)

Indicator 3 Informing assessment to people who are related to assessment (QAR<sub>3</sub>)

**1.2 Result of factor quality test and indicators for evaluating internal quality assessment of special educational school**

After creating factors and indicators for evaluating internal quality assurance of special educational school which are from synthesis of various concepts and researches as well as interviewing people who are responsible for internal quality assurance of special educational school in order to create fundamental concept framework, all

indicators are developed to create indicators for evaluating internal quality assurance of special educational school that can be implemented for evaluating internal quality assurance of special educational school with the most compatibility with context of school. These indicators will be tested for quality such as structural precision test, factor suitability test and indicators for evaluating internal quality assurance. The test result contains the following details;

### **1.2.1 Result of structural precision test**

Structural precision test of these 10 indicators are tested from asking about opinions for factors and indicators for evaluating internal quality assurance of special educational school. The sample group is managers and officers of special educational school in total number of 139 people. Survey factors will be analyzed using statistical program and factor extracting technique (Principal Component Analysis) and making a judgement to choose an indicator that has structural precision by looking at weight factor from .30 and over. In this step, all 10 indicators are selected according to the given rules.

However, before presenting the analysis result of indicator group, Kaiser-Meyer-Olkin value (KMO) was analyzed to test whether variables are suitable for analyzing with factor analysis technique or not. From the result, KMO value is .80 which is higher than .50 and assumption using Bartlett's Test of Sphericity found that all 10 indicators are related. Hence, all factors are suitable for factor analysis technique.

For factor analysis result, when 3 indicators for factor of readiness preparation before assessment (QAP) are analyzed, it is found that one indicator has Eigenvalues at 4.57, fluctuation of Percent of Variance is 30.93 percent and Factor Loading of indicators range from .69 to .81. It is shown that all indicators have structural precision. The indicator which has the highest Factor Loading is the QAP<sub>1</sub> (Appointment of person who is responsible for the assessment) with Factor Loading at .81, followed by QAP<sub>2</sub> (Educating about the assessment) with Factor Loading at .70 and QAP<sub>3</sub> (Planning of assessment procedure) with Factor Loading at .69 respectively as in Table 4.1.

**Table 4.1** Analysis result of survey factor to test structural precision of indicators for readiness preparation before assessment. (QAP)

Indicators	Factor Loading
1. Appointment of person who is responsible for the assessment (QAP <sub>1</sub> )	.81
2. Educating about the assessment (QAP <sub>2</sub> )	.70
3. Planning of assessment procedure (QAP <sub>3</sub> )	.69
Eigenvalues = 4.57	Percent of Variance = 30.93

For factor analysis result, when 4 indicators for factor of assessment procedure (QAI) are analyzed, it is found that one indicator has Eigenvalues at 2.23, fluctuation of Percent of Variance is 26.25 percent and Factor Loading of indicators range from .51 to .69. It is shown that all indicators have structural precision. Three highest Factor Loadings are QAI<sub>2</sub> (Analyzing data of assessment) with Factor Loading at .69, followed by QAI<sub>1</sub> (Collecting data of assessment) with Factor Loading at .63 and QAI<sub>3</sub> (Summarizing assessment) with Factor Loading at .52 as in Table 4.2.

**Table 4.2** Analysis result of survey factor to test structural precision of indicators for assessment procedure. (QAI)

Indicators	Factor Loading
1. Analyzing data of assessment (QAI <sub>2</sub> )	.69
2. Collecting data of assessment (QAI <sub>1</sub> )	.63
3. Summarizing assessment (QAI <sub>3</sub> )	.52
4. Examining assessment (QAI <sub>4</sub> )	.51
Eigenvalues = 2.23	Percent of Variance = 26.65

For factor analysis result, when 3 indicators reporting assessment are analyzed, it is found that one indicator has Eigenvalues at 1.26, fluctuation of Percent of Variance is 23.57 percent and Factor Loading of indicators range from .44 to .53. It is shown that all indicators have structural precision. The indicator which has the highest Factor Loading is QAR<sub>3</sub> (Informing assessment to people who are related to assessment) with Factor

Loading at .53, follow by QAR<sub>2</sub> (Making a report for assessment result) with Factor Loading at .47 and QAR<sub>1</sub> (Presenting assessment result) with Factor Loading at .44 respectively as in Table 4.3.

**Table 4.3** Analysis result of survey factor to test structural precision of indicators for reporting assessment (QAR)

Indicators	Factor Loading
1. Informing assessment to people who are related to assessment (QAR <sub>3</sub> )	.53
2. Making a report for assessment result (QAR <sub>2</sub> )	.47
3. Presenting assessment result (QAR <sub>1</sub> )	.44
Eigenvalues = 1.268	Percent of Variance = 23.577

### 1.2.2 Result of suitability test

Suitability test of 10 indicators from the opinions towards factors and indicators for evaluating internal quality assessment. The sample group is executives and staff of special educational school in total number of 139 people using mean analysis and standard deviation. Weight score of suitability assigns each indicator in 5 levels ranging from 1 to 5. 1 is the lowest, 2 is low, 3 is medium, 4 is high and 5 is the highest respectively. To consider suitable indicators for evaluating internal quality assurance of special educational school by selecting indicators which have the mean of suitability of 3.00 and over. In this step, all 10 indicators are selected according to the given rules. The details of suitability test of indicators which are used for evaluating internal quality assurance of special educational school in each factor are the following;

For result of opinions from a sample group about the suitability for readiness preparation before assessment, the suitability is overall in medium level. Mean value is 3.43 and standard deviation is 0.96. Means of suitability for indicators are from 3.40 to 3.54. In summary, all indicators are suitable to be used as form for evaluating internal quality assurance of special educational school. Among these indicators, the sample group chose indicator 1 which has mean of suitability at 3.54 as the highest indicator. The lowest indicator is indicator 3 which has mean of suitability at 3.40 as in Table 4.4.

**Table 4.4** Mean and standard deviation about suitability of indicators for readiness preparation before assessment (QAP)

<b>Indicators</b>	<b>Mean</b>	<b>SD</b>	<b>Level</b>
1. Appointment of person who is responsible for the assessment (QAP <sub>1</sub> )	3.54	0.88	High
2. Educating about the assessment (QAP <sub>2</sub> )	3.36	0.83	Medium
3. Planning of assessment procedure (QAP <sub>3</sub> )	3.40	0.96	Medium
<b>Total average</b>	<b>3.43</b>	<b>0.96</b>	<b>Medium</b>

For result of opinions from a sample group about the suitability for assessment procedure, the suitability is overall in high level. Mean value is 3.91 and standard deviation is 0.77. Means of suitability for indicators are from 3.79 to 4.07. In summary, all indicators are suitable for evaluating internal quality assurance of special educational school. Among these indicators, the sample group chose three highest indicators from high to low levels. Indicator 4, 2 and 3 have mean of suitability at 4.07, 3.89 and 3.88 respectively. The lowest indicator is indicator 1 which has mean of suitability at 3.79 as in Table 4.5.

**Table 4.5** Mean and standard deviation about suitability of indicators for assessment procedure (QAI)

<b>Indicators</b>	<b>Mean</b>	<b>SD</b>	<b>Level</b>
1. Collecting data of assessment (QAI <sub>1</sub> )	3.79	0.92	High
2. Analyzing data of assessment (QAI <sub>2</sub> )	3.89	0.84	High
3. Summarizing assessment (QAI <sub>3</sub> )	3.88	0.86	High
4. Examining assessment (QAI <sub>4</sub> )	4.07	0.91	High
<b>Total average</b>	<b>3.91</b>	<b>0.77</b>	<b>High</b>

For result of opinions from a sample group about the suitability for reporting assessment, the suitability is overall in high level. Mean value is 3.585 and standard deviation is 0.70. Means of suitability for indicators are from 3.30 to 3.77. In summary, all indicators are suitable for evaluating internal quality assurance of special educational



school. Among these indicators, the sample group chose indicator 3 which has mean of suitability at 3.77 as the highest indicator. The lowest indicator is indicator 1 which has mean of suitability at 3.30 as in Table 4.6.

**Table 4.6** Mean and standard deviation about suitability of indicators for reporting assessment (QAR)

Indicators	Mean	SD	Level
1. Presenting assessment result (QAR <sub>1</sub> )	3.30	0.95	Medium
2. Making a report for assessment result (QAR <sub>2</sub> )	3.67	0.72	High
3. Informing assessment to people who are related to assessment (QAR <sub>3</sub> )	3.77	0.74	High
<b>Total average</b>	<b>3.58</b>	<b>0.70</b>	<b>High</b>

### 1.2.3 Result of suitability test for model of measurement in evaluating internal quality assurance of special educational school and empirical data

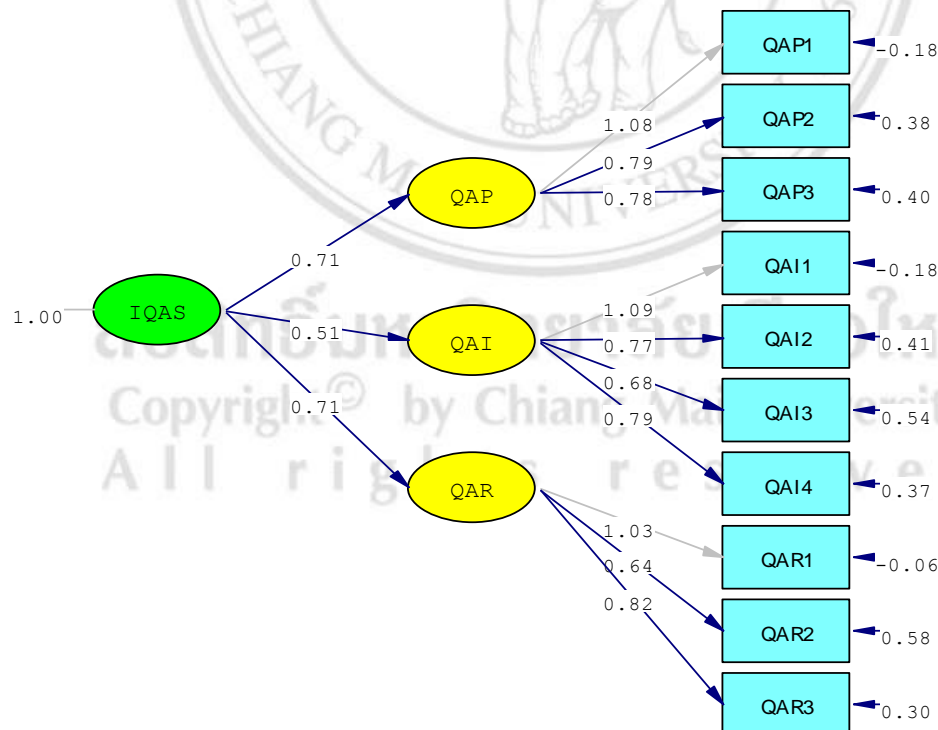
For result of suitability test for model of measurement in evaluating internal quality assurance of special educational school and empirical data by using the questionnaire to ask opinions towards factors and indicators for evaluating internal quality assurance of special educational school, the sample group is executives and staff of special educational school in the total number of 139 people. The model of measurement for evaluating internal quality assurance which is presented here will be model of the Second Order Confirmatory Factor Analysis. It is model of measurement for evaluating internal quality assurance of special educational school.

For result of Confirmatory Factor Analysis in evaluating internal quality assurance of special educational school, it is found that model is consistent with collected empirical from the sample group. Chi-square value is 13.36 and propability value (P) is 0.89. This means Chi-square is different from 0 value with no significance in statistics. This is shown that the model of measurement is suitable for empirical data and has Goodness of Fit Index value (GFI) at 0.98.

If Factor Loading value (b) of three factors are considered, these values have range from .51 to .71 and every value has statistically significance at .01. This shows that all factors are important for evaluating internal quality assurance and besides it can consider Coefficient of determination value ( $R^2$ ) and Factor Score Regressions value (FS) which gives the similar meaning. Nonetheless, to consider the level of significance of these factors, it is shown that indicator 1, 3 and 2 have Factor Loading value at .71, .71 and .51 respectively. Detail of the analysis is according to table 4.13 and Table 4.7.

**Table 4.7** Result of Confirmatory Factor Analysis for model of measurement in evaluating internal quality assurance of special educational school.

Factors	b	SE	$R^2$
QAP	1.00**	.06	.50
QAI	1.00**	.06	.26
QAR	0.68**	.05	.50
Result of suitability test	$\chi^2 = 13.36$ df = 21	P = 0.89	GFI = .98 AGFI = .95

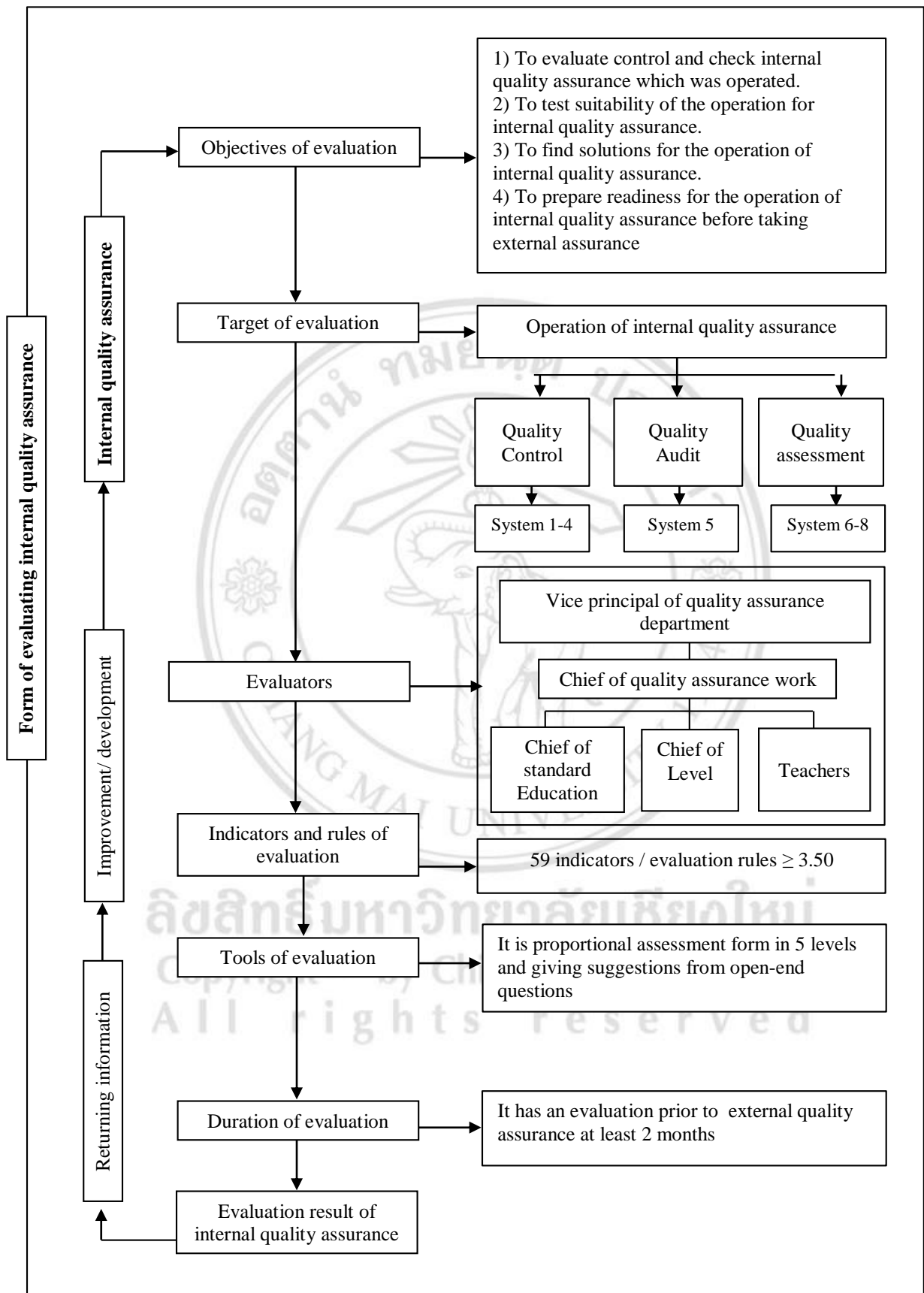


**Figure 4.1** Result of Confirmatory Factor Analysis for model of measurement in evaluating internal quality assurance in special educational school

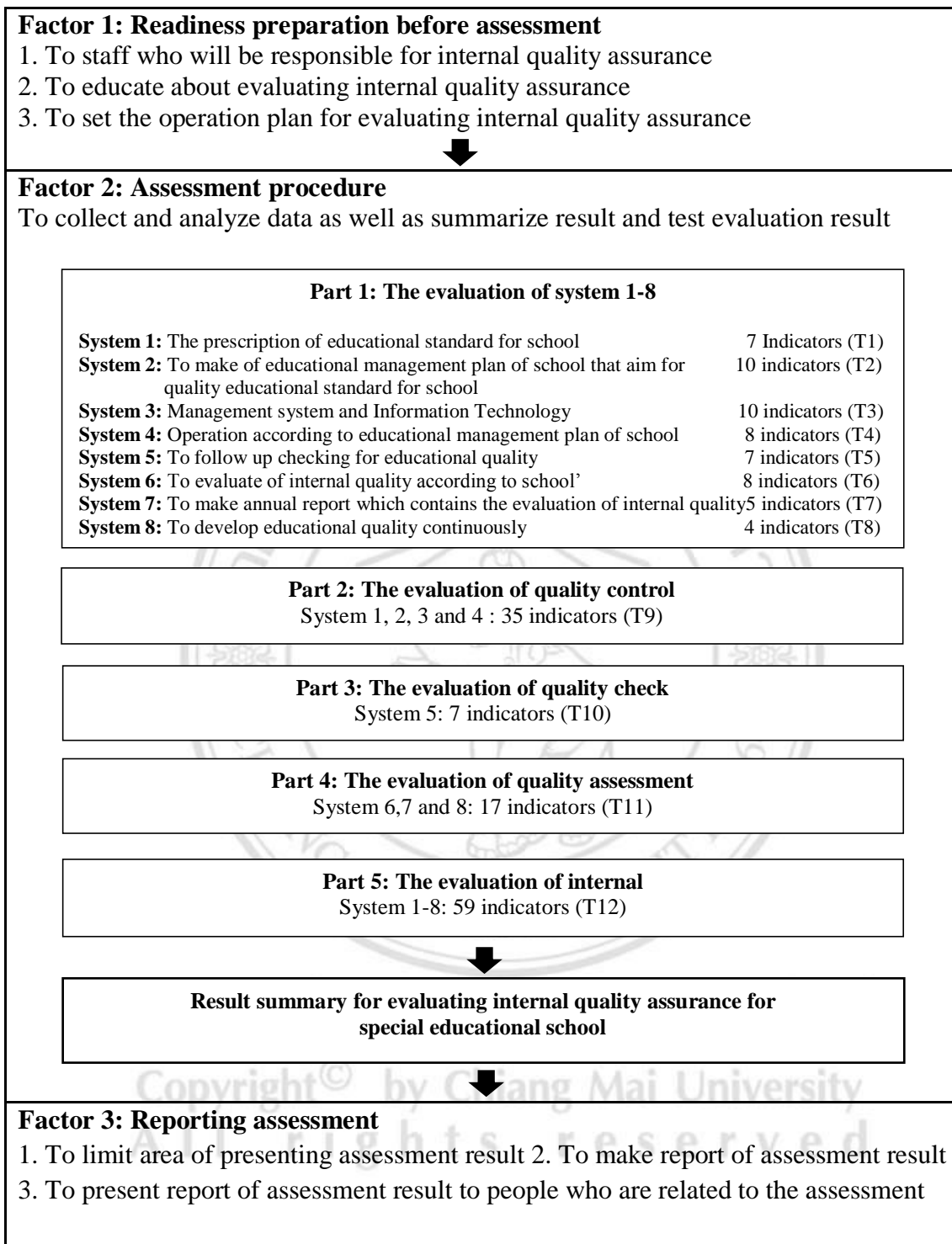
## **Part 2: Result of form development and handbook for evaluating internal quality assurance of special educational school**

### **2.1 Result of form development and handbook for evaluating internal quality assurance of special educational school**

The synthesis of form for evaluating internal quality assurance of special educational school from concepts, principles, researches and documents is such as assessment form, quality assurance form of basic education, regulations about educational quality assurance of special educational school, basic standard of special education as well as setting up brainstorming conference with executives and staff in the number of 7 people in order to get form and handbook for evaluating internal quality assurance of special educational school. The important factor of form consists of objectives of evaluation, target of evaluation, evaluators, indicators, rules of evaluation, methods of evaluation, duration of evaluation as well as a handbook of evaluation that consists of three important factors such as factor 1 (readiness preparation before assessment), factor 2 (assessment procedure) and factor 3 (reporting assessment). The detail is shown in Figure 4.2 -4.3.



**Figure 4.2** Form of evaluating internal quality assurance of special educational school



**Figure 4.3** Handbook of evaluating internal quality assurance of special educational school

Description of form for evaluating internal quality assurance of special educational school as in picture 4.2 will be shown as the following;

### **1. Objectives of evaluation**

The evaluation of internal quality assurance has the following objectives;

1. To evaluate control and check internal quality assurance.
2. To check suitability for the operation of internal quality assurance.
3. To improve the operation of internal quality assurance
4. To evaluate the operation for internal quality assurance before external assessment

### **2. Target of evaluation**

Target of evaluation is the operation for internal quality assurance of special educational school. It consists of Quality Control, Quality Audit and Quality Assessment. The details will be described as the following;

Quality Control means the operation of control and follow up educational quality of special educational school to be standardized as well as to be indicators for quality of educational management.

Quality Audit means the operation of seeking evidence and audit the operation process of Quality Control in order to improve educational quality of special educational school according to educational standard

Quality Assessment means the operation to assess educational quality of special educational school to oversee to some extent whether the operation is according to prescribed rules and standard or not.

### **3. Evaluators**

Evaluators for internal quality assurance are executives and staff for special educational school in total number of 5 people. 1. Vice principal of quality assurance department 2. Chief of quality assurance work 3. Chief of standard Education 4. Chief of Level 5. Teachers

#### **4. Indicators and evaluation rules**

There are 59 indicators and rules to evaluate internal quality assurance of special educational school in 8 systems as the following;

##### **System 1: The prescription of educational standard for school**

Indicator 1 – To set up meeting for related people to make educational standard of school

Indicator 2 – To prescribe educational standard, indicators and successful target value which are factors of educational standard from the prescription of a ministry.

Indicator 3 – To have consistency with the target to manage school education for uniqueness, identity and vision of the school as well as measures for basic education.

Indicator 4 – To have coverage for knowledge and learning process which is consistent with level standard specified by the curriculum as well as to consider capabilities of students, communities and localities.

Indicator 5 – To keep principle for joint operation of every party in prescribing educational standard.

Indicator 6 – To announce and promulgate educational standard of school.

Indicator 7 – To implement educational standard of school as a guide to make operation plan of school.

##### **System 2: To make of educational management plan of school that aim for quality educational standard for school**

Indicator 1 – To appoint the committee to make educational anagement plan of school.

Indicator 2 – To study problematic conditions and essential needs of school systematically.

Indicator 3 – To prescribe vision, mission and success of concrete educational development.

Indicator 4 – To prescribe method of operation using PCDA or other referable concepts to cover curriculum development of school in order to move forward to prescribed educational standard.

Indicator 5 – To prescribe roles and responsibilities to school staff to be responsible for the prescribed operation efficiently.

Indicator 6 – To prescribe roles and responsibilities as well as a guide to joint operation of student's guardians and communities.

Indicator 7 – To prescribe budget and resource use of school efficiently.

Indicator 8 – To make annual operation plan which is consistent with educational management plan of school

Indicator 9 – To prescribe knowledge resources and local wisdom from outside that supports academic.

Indicator 10 – To present annual operation plan to the committee of basic education to get approval.

### **System 3: Management system and Information Technology**

Indicator 1 – To have management system using concepts or theories which are suitable for the school context.

Indicator 2 – To have management structure which supports the operation.

Indicator 3 – To have management system which focuses on joint operation with related personnel.

Indicator 4 – To provide sufficient information in operating educational quality improvement.

Indicator 5 – To publicize information to related personnel.

Indicator 6 – To prescribe clear responsibilities and duties to the personnel.

Indicator 7 – To use educational quality improvement plan as a tool for management.



Indicator 8 – To keep complete information according to managerial workloads in many departments of school.

Indicator 9 – To manage Information Technology in order to improve educational standard systematically.

Indicator 10 – To use technology in the development of Information Technology

**System 4: Operation according to educational management plan of school**

Indicator 1 – To plan the operation by using the principle of joint operation.

Indicator 2 – To assign specific date in a calendar of operation clearly.

Indicator 3 – To keep operation time according to the duration specified by the calendar of operation.

Indicator 4 – To supervise and follow up the operation clearly.

Indicator 5 – To direct and follow the operation continuously.

Indicator 6 – To use evaluation result to improve the operation.

Indicator 7 – To report the result of operation and use the operation result to plan the operation improvement.

Indicator 8 – To evaluate the satisfaction of related personnel after the end of project.

**System 5: To follow up checking for educational quality**

Indicator 1 – To prepare readiness and plan to follow up and check educational quality.

Indicator 2 – To make instruments to follow up and check educational quality of school.

Indicator 3 – School staff take part in the following up and checking educational quality.

Indicator 4 – To follow up and check the progress of the operation according to educational quality improvement plan continuously.

Indicator 5 – To operate the follow up and check educational quality after the end of semester.

Indicator 6 – To bring follow up result of educational quality to be used as information to make School Annual Report (SAR)

Indicator 7 – To make follow up report and check educational quality.

**System 6: To evaluate of internal quality according to school' educational standard**

Indicator 1 – To appoint the committee to evaluate internal quality according to education standard

Indicator 2 – To operate with joint operation of staff and related people.

Indicator 3 – To assign evaluational framework and evaluational equipment that covers educational standard id school in every standards and indicators.

Indicator 4 – To operate the internal quality according to the educational standard after the end of academic year.

Indicator 5 – To bring evaluational result of internal quality to improve the operation.

Indicator 6 – To collect evaluational result of internal quality and summatize the result clearly.

Indicator 7 – To bring the evaluation result of internal quality as information for School Annual Report (SAR)

Indicator 8 – To use various kinds of methods and instruments to evaluate internal quality according to the education.

**System 7: To make annual report which contains the evaluation of internal quality**

Indicator 1 – To appoint the committee to make annual report according to the educational standard.

Indicator 2 – To collect Information Technology of the operation according to educational quality improvement plan of school.

Indicator 3 – To make annual report and report various aspects of school information.

Indicator 4 – To write annual report which reflects the operation according to the essential information that connects with tasks of educational quality improvement in a cycle of one academic year.

Indicator 5 – To publicize information to the public. Original affiliation institute and related institutes.

### **System 8: To develop educational quality continuously**

Indicator 1 – To study and improve form of internal quality assurance continuously.

Indicator 2 – To analyze result of internal assessment and other assessments

Indicator 3 – To bring analysis result of internal assessment result to plan educational quality of school.

Indicator 4 – To publicize result of educational quality improvement and exchange learning for better improvement and the rules for evaluating internal quality assurance of special educational school. The suitability for operation must be in “high level and the average is 3.50 and over”

### **5. Tool for evaluation**

A tool for evaluating internal quality assurance of special educational school is the evaluation form of suitability in the operation for internal quality assurance of special educational school. The proportion is measured by 5 level (Rating Scale) and open-end questions in 13 issues. (see Appendix: page 393)

### **6. duration of evaluation**

For the duration of evaluating internal quality of special educational school. The operation of evaluating internal quality assurances starts at least 2 months in advance before the operation of external evaluation.

The handbook for evaluating internal quality assurance of special educational school as in the picture 4.3 can be explained in more detail from appendix C

## **2.2 Result of suitability test and possibility for implementation**

After form for evaluating internal quality assurance of special educational school is synthesized and improved as a guide for the staff of special educational school who can implement form for evaluating internal quality assurance. For this, I use suitability test and possibility for implementing evaluation form the following people; vice principal of special educational school, chief of quality assurance work, chief of standard education, chief of levels, teacher, staff who is responsible for educational quality assurance, evaluator in basic education level, expert in measurement and evaluation, educational supervisor for basic education and a staff from other special educational school who has experience in evaluating internal quality assurance. The total number is 10 people. They provide opinions about the form of evaluating internal quality assurance of the school, detail result of suitability test and possibility to bring form of evaluating internal quality assurance as follows;

Result of the brainstorming session is to talk about form and handbook for evaluating internal quality assurance of special educational schools as well as to discuss some important issues such as steps of the form to evaluate internal quality assurance of special educational school, detail of the operation for form evaluation including evidence of indicators, rules of evaluation, tools for evaluation. Participants in brainstorming session are vice principal of the academic department, chief of quality assurance work, chief of standard education, chief of levels, teacher, staff who is responsible for educational quality assurance and a academician educational quality assurance. The total number is 7 people. From the brainstorming session, I gather recommendations and opinions to improve form and handbook of evaluation in every steps in order to be the most suitable for implementation. Result of brainstorming session will be broadly presented as the following;

2.2.1 Opinions of brainstorming session about steps of form and handbook of internal quality assurance of special educational school can be summarized as the following;

1) For prescribing to rules to select school staff, the committee should assign the workload for staff not more than 18 hours / week because assigning more workload for staff than this will interfere with their minimum teaching workload prescribed by the school.

2) The committee members should be devoted people and responsible for the assignments because not only they have to deal with much teaching workload, but they also have to be responsible for works in other 2 departments or more including taking care of of students all the time. Hence, a person who wants to be a committee member should have devotion and be fully responsible to the given assignments.

3) Documents and evidences of indicators for each internal quality assurance system are specified clearly in order to make correct and covered testing as much as possible.

4) The evaluation for internal quality assurance should be conducted at least once per one semester. This could help to test ther operation of internal quality assurance which is consistent with the operation of quality assurance of the school.

5) Form and handbook should be improved to be used more easily because teachers in special educational school have more workloads compared to regular schools. Paper form of evaluating internal quality assurance can be improved and converted into electronical form that can be evaluated conveniently through computers or smartphones. This decreases the use of paper and provides convenience for evaluators to be able to evaluate consistently with the operation.

6) To assign data sources to be consistent with indicators for evaluation as well as documents and evidences which should be responsible for the operation of quality assurance in each system of internal quality assurance in school.

7) To add or edit indicators in each system of internal quality assurance to be clearer for the same understanding of evaluating committee.

2.2.2 Analysis result of opinions about overall (draft) form of evaluating internal quality assurance of special educational school. It is found that opinion in the

highest rating has the mean of 4.81 and Standard Deviation at 0.30. The detail of average opinions about (draft) form of evaluating has average range between 4.57 – 5.00. In the list of all opinions, questions with the highest opinion are question number 1, 6 and 7 which have the average for opinions of 5.00. Question with the lowest opinion is question number 3 which has has the average for opinions of 4.57 as can be seen in table 4.8.

**Table 4.8** Mean value (M) and Standard Deviation (SD) about (draft) opinions form of evaluating interna quality assurance of special educational school.

<b>Question Number</b>	<b>Description</b>	<b>Mean</b>	<b>SD</b>	<b>Result</b>
1.	Form of evaluating internal quality assurance of special educational school is consistent with the mission for educational management of the school.	5.00	0.00	The highest
2.	Form of evaluating internal quality assurance of special educational school can be used in the real practice.	4.86	0.37	The highest
3.	Target of internal quality assurance is clear.	4.57	0.53	The highest
4.	Improved factors and indicators of evaluating internal quality assurance are suitable for the school's context.	4.71	0.48	The highest
5.	Improved factors and indicators of evaluating internal quality assurance are possible to be implemented with the operation of internal quality assurance of the school.	4.57	0.53	The highest
6.	The operation of evaluating internal quality assurance is a procedure that is suitable for school's context.	5.00	0.00	The highest
7.	The operation of evaluating internal quality assurance is beneficial to school quality assurance.	5.00	0.00	The highest
<b>Total of the average</b>		<b>4.81</b>	<b>0.30</b>	<b>The highest</b>

2.2.3 For result of opinions about the suitability for school's context and possibility for implementation of form for evaluating internal quality assurance, it is found that overall suitability for school context is suitable in the highest rating. The

mean is 4.63 and Standard Deviation is 0.20. The detail of the average about suitability of school context has average range from 3.90 – 4.90. For overall of possibility for implementation, it is found that the possibility for implementation has the highest rating. The mean is 4.75 and Standard Deviation is 0.30. The detail of the average about possibility for implementation has average range from 4.10 – 5.00. it can be concluded that the form of evaluation is not only suitable for school context, but it is also possible for implementing the evaluation of internal quality assurance of special educational school as can be seen in table 4.9.

**Table 4.9** Mean value and Standard Deviation about the suitability with the school context and possibility for implementation of form for evaluating internal quality assurance of special educational school.

Description	Suitability with the school context			Possibility for implementation		
	Mean	SD	Result	Mean	SD	Result
1. Principles and reasons of form for evaluating internal quality assurance of special educational school.	4.70	0.48	The highest	4.90	0.31	The highest
2. Target of form for evaluating internal quality assurance of special educational school.	4.90	0.31	The highest	4.90	0.31	The highest
3. To plan and assign evaluation frame according to form of evaluation.	4.80	0.42	The highest	4.90	0.31	The highest
4. To assign evaluation frame using sources of informer.	4.90	0.31	The highest	4.80	0.42	The highest
5. To assign evaluation frame using method of data collection.	4.50	0.52	The highest	4.90	0.31	The highest
6. To assign evaluation frame using data analysis.	4.90	0.31	The highest	4.90	0.91	The highest
7. To assign evaluation frame using evaluation rules.	4.70	0.48	The highest	4.80	0.42	The highest

**Table 4.9** (continued)

Description	Suitability with the school context			Possibility for implementation		
	Mean	SD	Result	Mean	SD	Result
8. To assign method to use form of evaluating internal quality assurance using steps of operation.	4.80	0.42	The highest	4.90	0.31	The highest
9. To assign method to use form of evaluating internal quality assurance using method of operation.	4.80	0.42	The highest	4.90	0.31	The highest
10. To assign method to use form of evaluating internal quality assurance using tools for evaluation.	4.70	0.48	The highest	4.80	0.42	The highest
11. To assign method to use form of evaluating internal quality assurance using received result.	4.80	0.42	The highest	4.90	0.31	The highest
12. To assign method to use form of evaluating internal quality assurance using duration of operation.	4.70	0.48	The highest	4.90	0.31	The highest
13. Internal quality assurance of 8 systems which is assigned in form of evaluating internal quality assurance.	4.80	0.42	The highest	4.90	0.31	The highest
14. Aim of evaluation for System 1	4.90	0.48	The highest	4.90	0.31	The highest
15. To assign indicator for System 1	4.80	0.42	The highest	4.90	0.31	The highest
16. Method of evaluation for System 1	4.50	0.52	The highest	4.80	0.42	The highest
17. Aim of evaluation for System 2	4.50	0.52	The highest	4.70	0.67	The highest
18. To assign indicator for System 2	4.70	0.48	The highest	4.90	0.31	The highest
19. Method of evaluation for System 2	4.80	0.42	The highest	4.80	0.42	The highest



**Table 4.9** (continued)

Description	Suitability with the school context			Possibility for implementation		
	Mean	SD	Result	Mean	SD	Result
20. Aim of evaluation for System 3	4.20	0.42	High	4.90	0.31	The highest
21. To assign indicator for System 3	4.70	0.48	The highest	4.70	0.67	The highest
22. Method of evaluation for System 3	4.50	0.52	The highest	4.90	0.31	The highest
23. Aim of evaluation for System 4	4.60	0.51	The highest	4.80	0.42	The highest
24. To assign indicator for System 4	4.00	0.00	The highest	4.40	0.84	High
25. Method of evaluation for System 4	4.80	0.48	The highest	5.00	0.00	The highest
26. Target of internal quality assurance for System 1-4 (Quality Control).	4.20	0.42	High	4.20	0.91	High
27. Aim of evaluation for System 5	4.70	0.48	The highest	4.80	0.42	The highest
28. To assign indicator for System 5	4.40	0.51	High	4.90	0.31	The highest
29. Method of evaluation for System 5	4.10	0.31	High	4.90	0.31	The highest
30. Target of internal quality assurance for System 5 (Quality Audit).	3.90	0.48	High	4.10	0.31	High
31. Aim of evaluation for System 6	4.90	0.31	The highest	4.90	0.31	The highest

**Table 4.9** (continued)

Description	Suitability with the school context			Possibility for implementation		
	Mean	SD	Result	Mean	SD	Result
32. To assign indicator for System 6	4.70	0.73	The highest	4.90	0.31	The highest
33. Method of evaluation for System 6	4.90	0.31	The highest	4.30	0.67	High
34. Aim of evaluation for System 7	4.90	0.31	The highest	4.30	0.48	High
35. To assign indicator for System 7	4.90	0.31	The highest	4.70	0.67	The highest
36. Method of evaluation for System 7	4.40	0.51	High	4.70	0.67	The highest
37. Aim of evaluation for System 8	4.70	0.48	The highest	4.90	0.31	The highest
38. To assign indicator for System 8	4.60	0.51	The highest	4.40	0.51	High
39. Method of evaluation for System 8	4.90	0.31	The highest	4.30	0.48	High
40. Target of internal quality assurance for System 6-8 (Quality Assessment).	4.90	0.31	The highest	4.40	4.51	High
<b>Total average</b>	<b>4.63</b>	<b>0.20</b>	<b>The highest</b>	<b>4.75</b>	<b>0.30</b>	<b>The highest</b>

### Part 3: Experimental result of using form and handbook for evaluating internal quality analysis of special educational school.

For studying the experimental result of using form and handbook for evaluating internal quality analysis according to factors and indicator which can be improved, the form and handbook for evaluation are used for experiment in a special educational school in order to study about the clearness of factors and indicators for evaluating internal quality analysis of special educational school for studying how problems and obstacles occur when form and handbook are used in the real practice in order to improve form and handbook for evaluating internal quality assurance of special educational school to be suitable and can be used in real practice as well as to study

result for evaluating internal quality assurance of special educational school in order to improve and develop the operation for internal quality assurance to be complete. The result of experimental use can be shown as follows;

3.1 For the result for experimental use of form and handbook for evaluating internal quality assurance of special educational school, form and handbook for evaluating internal quality assurance were used in a special educational school on 1 July 2009. The evaluating committee members were executives and staff of that special educational school. They were vice principal of the academic department, vice principal of administrative department, chief of quality assurance work, representative for chief of educational standard, representative for chief of levels and a teacher. The total number was 6 people. This was according to qualifications specified in handbook for evaluating internal quality assurance. The presentation of experimental result to use form and handbook for evaluating internal quality assurance of special educational school. This can be summarized as the following;

For experimental result to use form and handbook for evaluating internal quality assurance of special educational school, opinions and suggestions from the evaluating committee members are concluded for improvement in form and handbook to be clearer and complete. Important issues are the following;

**Factor 1: Readiness preparation before assessment** There are some suggestions as the following;

1) One week before the operation for evaluating internal quality assurance, A conference should be set up to inform about roles of staff who were appointed as a committee / evaluating committee members in order to make the same understanding about the process for evaluating internal quality assurance of school.

2) For the rules of selecting people to be committee members, having responsibilities and devotion in work should be given importance first because the majority of staff has much work to teach and take care of students all the time as this is a boarding school.

3) Appointed evaluating committee members should have a chance to evaluate in some parts before they do real evaluation in order to create familiarity and help to make some corrections in evaluating internal quality assurance of school.

4) Making evaluation two times per one semester can be adjusted to be more flexible according to the situation of the school operation in that year in order not to create too much burden for the staff.

5) Preparation before the evaluation is very important especially the appointment of staff to become evaluating committee members. They have to be knowledgeable and experienced in the operation for internal quality assurance. We should select people who are responsible for tasks related to the evaluation in each system in order to make qualified evaluation which is consistent with the real operation.

6) To educate other people about evaluating internal quality assurance, the educator should be a staff who is responsible for quality assurance of school because he understand and see the overall entire view for the operation of internal quality assurance as well as he can inform and answer some questions to the committee members immediately.

7) Committee members for evaluating internal quality assurance should be appointed from personnel from various departments who are related to quality assurance of school in order to have participation in joint operation for evaluation.

8) The evaluation of internal quality assurance of school should be publicized to school staff and related people every time to acknowledge and realize together about the operation of internal quality assurance of school.

**Factor 2: Assessment procedure** There are some suggestions as the following;

1) Procedure of evaluating internal quality assessment should focus on using less time but gaining most benefits in order to be consistent with working context of staff in special educational school.

2) Reference documents for evaluation should be prepared one week in advance by officers or staff who are responsible for quality assurance of school.

3) People who do evaluation have to study some data, references and evidences to track the operation. Thus, some information should be provided to evaluating committee members in order to connect experiences from the operation to evaluation which is consistent with other missions according to indicators.

4) Documents and evidence in evaluating according to indicators should show contents which are consistent with indicators. In case that indicator use the same document, a copy of contents related to that indicator is made and sent to evaluation committee for testing.

5) A computer system should be installed to help the evaluation of internal quality assurance by evaluating committee to be more convenient and faster.

6) An evaluation report for internal quality assurance of the previous year should be presented to evaluating committee before the operation for evaluation begins. To acknowledge the committee about related operation. This is the preparation of information for the evaluating committee to see way of the evaluation and some strong points from the improvement of evaluation result so that the evaluation is consistent with the operation for actual internal quality assurance of school.

7) Increasing or decreasing documents and evidence in each evaluation in order to create flexibility in evaluation, joint consideration of the evaluating committee members about documents and evidences of each indicator should be made.

**Factor 3: Reporting assessment** There are some suggestions as the following;

1) The result summary of evaluation for internal quality assessment should be provided verbally from evaluating committee before reporting to the executives and related people.

2) After the end of evaluation, basic evaluation result should be reported to school executives immediately. 1 – 2 pages of paper are made to be the brief overview of evaluation and sent to the executives beforehand and then the complete report will be published later.

3) A standard form of evaluation report should be made and it can be used to input the result of evaluation and report to related people more quickly. Apart from this, the evaluating committee provides some additional related suggestion as the following;

(1) The executives have to give importance and encourage staff to realize the significance of internal quality assurance for operation to be better with more quality.

(2) To use various communication channels for interested person with school quality assessment to know information about improvement and give decision about operation.

(3) Education improvement plan of school have to implement information from evaluation result for internal quality assurance to improve school educational quality.

(4) To support the realization to school staff who are related to the operation for internal quality insurance to provide information technology systematically. This can be tested and is consistent with the target of evaluation.

(5) Projects or activities should be operated in full PCDA period for easier and effective following up and tracking.

3.2 Result of the evaluation of form and handbook of evaluating internal quality assurance of special educational school.

The satisfaction result from the evaluating committee for evaluating internal quality assurance is evaluated (6 people) and handbook of evaluation from the executives and personel who are related with form and handnook of evaluation are also evaluated (10 people). After the end of evaluation for internal quality assurance, the detail of analysis result is the following;

3.2.1 For the overall result of satisfaction to form and handbook for evaluating educational quality assurance of special educational school, it is found that the opinions for the satisfaction is in the highest rating. The mean value is 4.28 and

Standard Deviation is 0.04. The detail of the average about satisfaction to form and handbook of evaluation has average range from 4.50 – 5.00. Among whole lists of satisfaction, the items that the sample group has the highest level of satisfaction are question number 1, 2, 3, 5, 6, 7, 8, 9, 12, 14, 15, 17, 18, 19, 20, 21, 22 and 23. The average of opinions is 5.00. For The lowest level of satisfaction is item in question number 10. The average of opinions is 4.50 as can be seen in the Table 4.10.

**Table 4.10** Mean and Standard Deviation about the satisfaction for form and handbook for evaluating internal quality assurance of special educational school.

<b>Description</b>	<b>Mean</b>	<b>SD</b>	<b>Result</b>
1. To explain origin and reasons for evaluation in the handbook of evaluation.	5.00	0.00	The highest
2. To provide detail and information in Chapter 1.	5.00	0.00	The highest
3. To provide detail and information in Chapter 2.	5.00	0.00	The highest
4. To provide detail and information in Chapter 3.	4.83	0.40	The highest
5. To provide detail and information in Chapter 4.	5.00	0.00	The highest
6. To explain operation steps for evaluation in Ch.2 (Factor 1: Readiness preparation before assessment )	5.00	0.00	The highest
7. To explain operation steps for evaluation in Ch.2 (Factor 2: Assessment procedure)	5.00	0.00	The highest
8. To explain operation steps for evaluation in Ch.2 (Factor 3: Reporting assessment)	5.00	0.00	The highest
9. To assign evaluation content in the handbook of evaluation.	5.00	0.00	The highest
10. To assign the numbers of indicators for evaluation.	4.50	0.54	The highest
11. To show documents / evidences according to indicators.	4.83	0.40	The highest
12. To divide contents from handbook of evaluation into 4 chapters.	5.00	0.00	The highest
13. To arrange contents in handbook of evaluation.	4.67	0.51	The highest
14. To assign topics in handbook of evaluation.	5.00	0.00	The highest
15. To use language in handbook of evaluation.	5.00	0.00	The highest

**Table 4.10** (continued)

<b>Description</b>	<b>Mean</b>	<b>SD</b>	<b>Result</b>
16. To assign the duration in the operation for evaluating system in 2 days.	4.67	0.51	The highest
17. To assign font size in the handbook of evaluation.	5.00	0.00	The highest
18. To assign rules for evaluation.	5.00	0.00	The highest
19. To use tools for evaluation.	5.00	0.00	The highest
20. To design tools for evaluation.	5.00	0.00	The highest
21. To receive handbook of evaluation which is consistent with the school demand.	5.00	0.00	The highest
22. To develop handbook of evaluation in electronic form	5.00	0.00	The highest
23. Overall suitability of handbook for evaluating internal quality assurance of special educational school.	5.00	0.00	The highest
<b>Total average</b>	<b>4.28</b>	<b>0.04</b>	<b>The highest</b>

3.2.2 For the overall result of evaluation quality to form and handbook for evaluating educational quality assurance of special educational school, it is found that the opinions for the quality is in the highest rating. The mean value is 4.90 and Standard Deviation is 0.10. For evaluating in each category, the highest rating of average is suitability category. The Mean value is 4.92 and Standard Deviation is 0.12. The lowest rating of average is utility category. The Mean value is 4.82 and Standard Deviation is 0.16. The detail of the average about quality to form and handbook of evaluation has average range from 4.70 – 5.00. Among whole lists of quality, the items that the sample group see that form and handbook of evaluation has the highest level of quality are question number 1, 3, 5 and 7 The average of opinions is 5.00. For The lowest level of quality is item in question number 2. The average of opinions is 4.70 as can be seen in the Table 4.11.



**Table 4.11** Mean and Standard Deviation about the quality form and handbook for evaluating internal quality assurance of special educational school.

<b>Description</b>	<b>Mean</b>	<b>SD</b>	<b>Result</b>
<b>Utility category</b>			
1. Form and handbook for evaluating internal quality assurance in special educational school are beneficial for quality improvement of school.	5.00	0.00	The highest
2. Form and handbook for evaluating internal quality assurance in special educational school are beneficial for the operation improvement of internal quality assurance.	4.70	0.48	The highest
3. Form and handbook for evaluating internal quality assurance in special educational school indicate 8 systems of internal quality assurance more clearly.	5.00	0.00	The highest
4. Form and handbook for evaluating internal quality assurance in special educational school can use the latest evaluation result to improve the operation for internal quality assurance more suitably.	4.80	0.42	The highest
5. Form and handbook for evaluating internal quality assurance in special educational school help executives to get information technology from the evaluation which can be used to improve educational quality of school.	5.00	0.00	The highest
6. Form and handbook for evaluating internal quality assurance in special educational school can create motivation for operation of internal quality assurance for staff well.	4.10	0.56	The highest
7. Form and handbook for evaluating internal quality assurance in special educational school help the operation of internal quality assurance to be more systematic.	5.00	0.00	The highest
<b>Total average</b>	<b>4.82</b>	<b>0.16</b>	<b>The highest</b>

**Table 4.11** (continued)

Description	Mean	SD	Result
<b>Possibility category</b>			
8. Form and handbook for evaluating internal quality assurance in special educational school can be used for the operation for internal quality assurance of school.	4.90	0.31	The highest
9. Form and handbook for evaluating internal quality assurance in special educational school show the possibility which the special educational school can use them to evaluate its internal quality assurance system.	4.90	0.31	The highest
10. Form and handbook for evaluating internal quality assurance in special educational school show the possibility to be applied for evaluating internal quality assurance of other schools.	4.80	0.42	The highest
11. Form and handbook for evaluating internal quality assurance in special educational school show the possibility to be developed into electronical system	4.80	0.42	The highest
<b>Total average</b>	<b>4.85</b>	<b>0.21</b>	<b>The Highest</b>
<b>Suitability category</b>			
12. Form and handbook for evaluating internal quality assurance in special educational school are consistent with the mission and educational standard of special educational school.	5.00	0.00	The highest
13. Form and handbook for evaluating internal quality assurance in special educational school have suitable steps of operation for internal quality assurance.	4.80	0.42	The highest
14. Form and handbook for evaluating internal quality assurance in special educational school show detail of steps for evaluation suitably.	5.00	0.00	The highest

**Table 4.11** (continued)

<b>Description</b>	<b>Mean</b>	<b>SD</b>	<b>Result</b>
15. Form and handbook for evaluating internal quality assurance in special educational school are suitable for improving educational quality of special educational school.	4.70	0.48	The highest
<b>Total average</b>	<b>4.92</b>	<b>0.12</b>	<b>The highest</b>
<b>Correctness category</b>			
16. Form and handbook for evaluating internal quality assurance in special educational school are divided into Four chapters which have clear form of evaluation and are correct.	4.90	0.31	The highest
17. Form and handbook for evaluating internal quality assurance in special educational school use correct methods and techniques for evaluation.	4.90	0.31	The highest
18. Form and handbook for evaluating internal quality assurance in special educational school can be self-evaluated correctly.	5.00	0.00	The highest
19. Form and handbook for evaluating internal quality assurance in special educational school can assign evaluators to be consistent with the system of evaluation.	5.00	0.00	The highest
20. Form and handbook for evaluating internal quality assurance in special educational school are correct in the evaluation result for internal quality assurance in school	4.80	0.42	The highest
<b>Total average</b>	<b>4.90</b>	<b>0.10</b>	<b>The highest</b>
<b>Overall average</b>	<b>4.87</b>	<b>0.05</b>	<b>The highest</b>