# CHAPTER 3

# Research Methodology

The researcher develops the components and indicators for evaluating the internal quality assurance for special education schools as well as checking quality of the components and indicators for evaluation and the validity and appropriateness for application. Besides, the researcher also checks the structural validity of the components and indicators for evaluation by applying the use of the SEM or the linear analysis methods and constructing the model and the evaluation manual to be the sample for evaluation of internal quality assurance in special education schools. For the quality control, quality check and quality evaluation, there is a trial use after preparation of the evaluation model that personnel can learn to implement quality assurance of the school. By presenting the research methodology, the researcher identifies the research topics into three main steps and six sub-steps as the followings.

**Step 1 Development of components and indicators for evaluating the internal quality assurance of special education schools.**

Sub-step 1 synthesizes the components and indicators for evaluating the internal quality assurance of special education schools.

Sub-step 2 checks the structural validity of the components and indicators for evaluating the internal quality assurance in special education schools.

**Step 2 Development of the model and the manual for evaluating the internal quality assurance in special education schools.**

Sub-step 1 synthesizes the model for evaluating the internal quality assurance in special education schools.
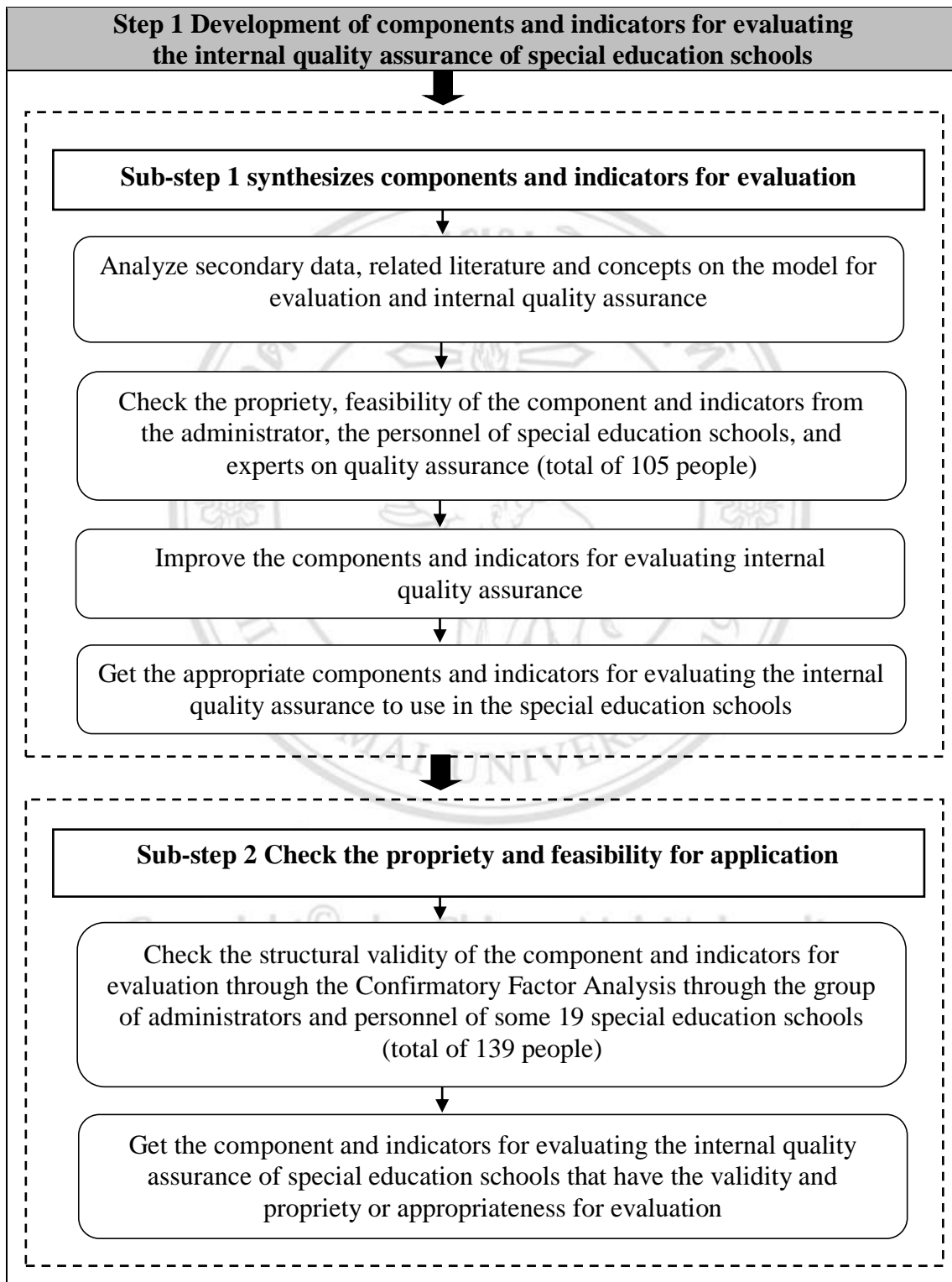
Sub-step 2 to check the model's propriety (appropriateness) and feasibility for further application.
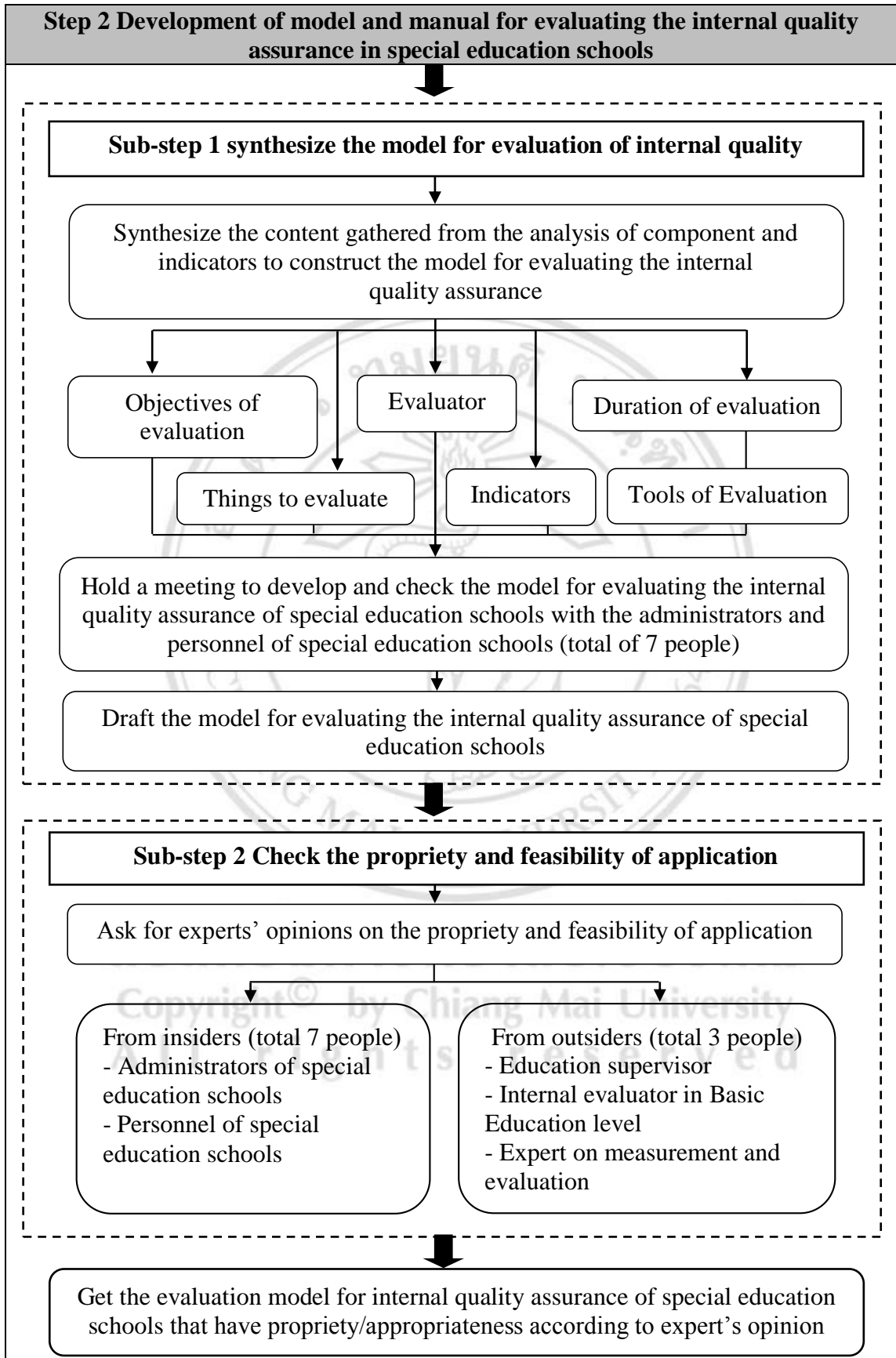
**Step 3 Study the result of trial use of the model and the manual for evaluating the internal quality assurance in special education schools.**
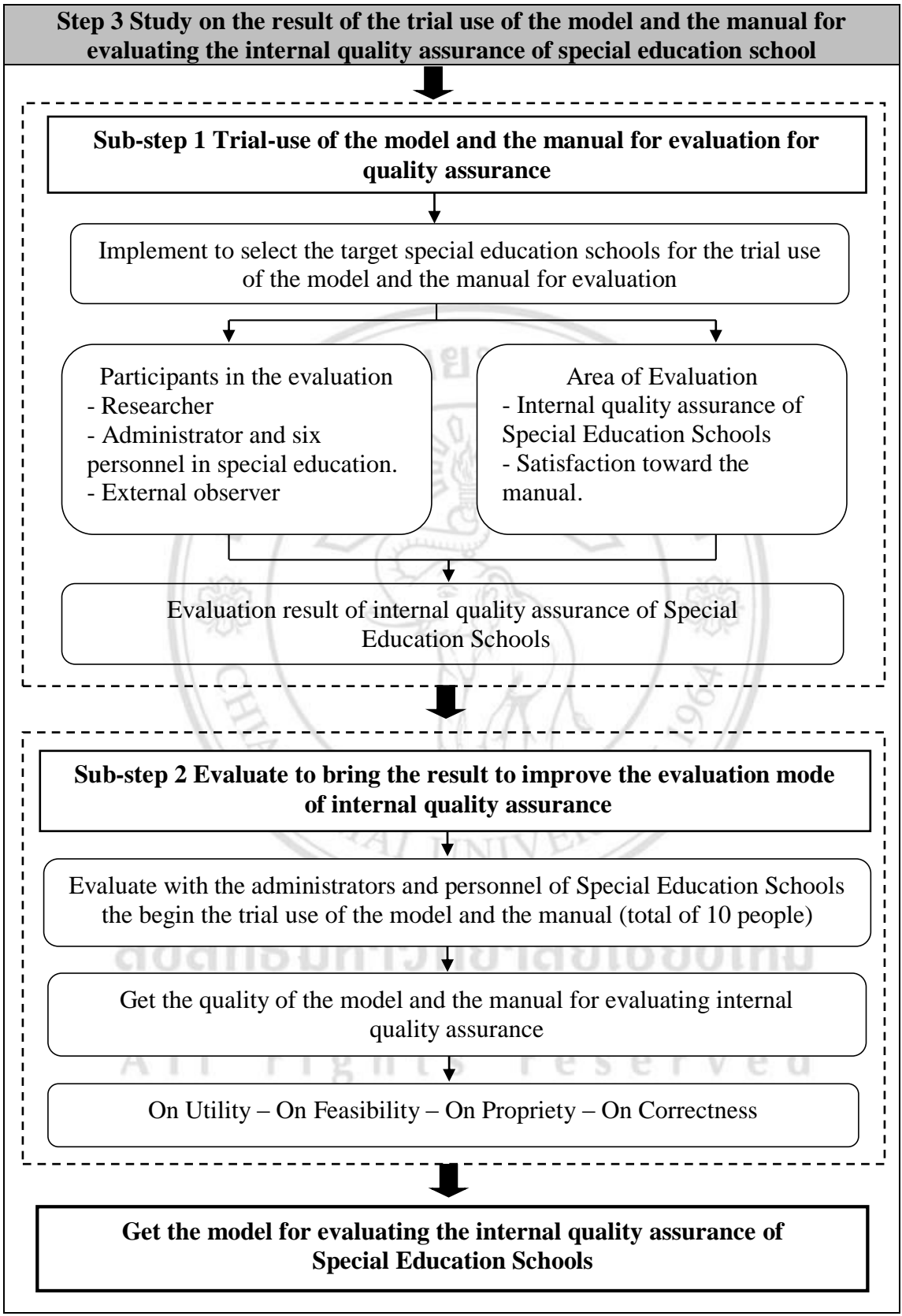
Sub-step 1 to apply the trial use of the model for evaluating the internal quality assurance of special education schools.

Sub-step 2 to evaluate the model to bring the result to improve the model for evaluation for internal quality assurance of special education schools.

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The researcher can summarize the steps for implementation of research into three steps as the followings.

| Step 1 Development of components and indicators for evaluating the internal quality assurance of special education schools |
|---|

**Sub-step 1 synthesizes components and indicators for evaluation**

Analyze secondary data, related literature and concepts on the model for evaluation and internal quality assurance

Check the propriety, feasibility of the component and indicators from the administrator, the personnel of special education schools, and experts on quality assurance (total of 105 people)

Improve the components and indicators for evaluating internal quality assurance

Get the appropriate components and indicators for evaluating the internal quality assurance to use in the special education schools

**Sub-step 2 Check the propriety and feasibility for application**

Check the structural validity of the component and indicators for evaluation through the Confirmatory Factor Analysis through the group of administrators and personnel of some 19 special education schools (total of 139 people)

Get the component and indicators for evaluating the internal quality assurance of special education schools that have the validity and propriety or appropriateness for evaluation

| Step 2 Development of model and manual for evaluating the internal quality assurance in special education schools |
| --- |

**Sub-step 1 synthesize the model for evaluation of internal quality**

Synthesize the content gathered from the analysis of component and indicators to construct the model for evaluating the internal quality assurance

| Objectives of evaluation | Evaluator | Duration of evaluation |
| --- | --- | --- |
| Things to evaluate | Indicators | Tools of Evaluation |

Hold a meeting to develop and check the model for evaluating the internal quality assurance of special education schools with the administrators and personnel of special education schools (total of 7 people)

Draft the model for evaluating the internal quality assurance of special education schools

**Sub-step 2 Check the propriety and feasibility of application**

Ask for experts' opinions on the propriety and feasibility of application

From insiders (total 7 people)
- Administrators of special education schools
- Personnel of special education schools

From outsiders (total 3 people)
- Education supervisor
- Internal evaluator in Basic Education level
- Expert on measurement and evaluation

Get the evaluation model for internal quality assurance of special education schools that have propriety/appropriateness according to expert's opinion

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| Step 3 Study on the result of the trial use of the model and the manual for evaluating the internal quality assurance of special education school |
|---|

**Sub-step 1 Trial-use of the model and the manual for evaluation for quality assurance**

Implement to select the target special education schools for the trial use of the model and the manual for evaluation

Participants in the evaluation
- Researcher
- Administrator and six personnel in special education.
- External observer

Area of Evaluation
- Internal quality assurance of Special Education Schools
- Satisfaction toward the manual.

Evaluation result of internal quality assurance of Special Education Schools

**Sub-step 2 Evaluate to bring the result to improve the evaluation mode of internal quality assurance**

Evaluate with the administrators and personnel of Special Education Schools the begin the trial use of the model and the manual (total of 10 people)

Get the quality of the model and the manual for evaluating internal quality assurance

On Utility – On Feasibility – On Propriety – On Correctness

**Get the model for evaluating the internal quality assurance of Special Education Schools**

**Step 1 Development of components and indicators for evaluating the internal quality assurance in the special education schools.**

Step 1 is classified into two sub-steps as the followings.

**Sub-step 1** Synthesizes the components and indicators for evaluating the internal quality assurance of special education school. The implementation is accomplished as the followings.

1. Analysis of secondary data, evidence, principles, concepts, theories and related literature that are related to the quality assurance, educational management and the concept on development of components and indicators.

2. Synthesis of components and indicators for internal quality assurance. This is done from the Self-Assessment Report (SAR), summary report of monitoring of educational quality, the manual for educational quality assurance in Basic Education level, the result of evaluating the educational quality outside the parent organization, the special educational standard in basic education level and the research findings from domestic and overseas studies.

3. Settle the components and indicators for evaluating the internal quality assurance in the special education school through the synthesis of 7 components and 30 indicators. It is composed of component 1 on the preparation for evaluation, component 2 on the report of evaluation result, component 3 on conducting information technology, component 4 on data gathering, component 5 on data analysis, component 6 on implementation of the evaluation, and component 7 on the application of evaluation result.

4. Test the propriety/appropriateness and feasibility for application with 19 special education schools and a total of 105 people.

5. Improve and make additional revision on components and indicators that are not yet appropriate.

**Sub-step 2** Check the structural validity of the component and indicators for evaluating the internal quality assurance of special education school. The implementation is as what follows.

1. Bring the derived components and indicators to elicit comments of the administrators and the personnel of the special education schools on the appropriateness on bringing the components and indicators for the evaluation model for internal quality assurance of special education schools.

2. Check the propriety of the components and indicators for evaluating the internal quality assurance by analyzing the Confirmatory Factor Analysis from the administrators and personnel from 19 special education schools.

3. Extract some 3 components and 10 indicators for evaluating the internal quality assurance of special education schools.

**Sample Group in Step 1**

For the research implementation in Step 1 the researcher studies from two sample groups as the followings.

**Group 1** is the group asked for checking the propriety and feasibility of the components and indicators for evaluating the educational quality assurance from 19 special education schools. They are the directors, deputy directors on academic affair, heads of quality assurance, heads of standard quality control, heads of class level, teachers, personnel, and expert on educational quality assurance (a total of 105 people).

**Group 2 is** the group asked for checking the structural validity of the components and indicators in the evaluation of internal quality assurance in special education school consisted of administrators and personnel from 19 special education schools (a total of 139 people). The researcher looks for the sample size appropriately to the number of total population by using the Table of Krejcie and Morgan ( cited in

Uthen Panyo, 1996: 14) to reach the Confidence Interval of 95 percent and arrives at the sample size of at least 254 samples. The researcher sends 260 sets questionnaires to 260 addresses/samples and gets back only 139 sets (or 53.3 percent of reply). After the researcher had sent the questionnaires to the sample group for about a month, the researcher requests the coordinators cooperation in giving information and sending the filled questionnaire back at the due time of two months. The researcher is considering the samples that have sent the filled questionnaire back as the real sample groups that can be accessible and used in this research.

**Tools to be used in research in Step 1**

The tools used for research implementation in the Step 1 are made of three sets as the followings.

Set #1 is the record form on synthesis of components and indicators for evaluating internal quality assurance in special education school.

Set #2 is the set of questionnaire to ask opinion on indicators or indicating behaviors for implementing internal quality assurance in special education school (see Appendix C page 263).

Set #3 is the set of questionnaire to ask for propriety of indicators for evaluating internal quality assurance in special education school (see Appendix C page 276).

**Construction of Tools used for Research in Step 1**

The researcher constructs three sets of tools in the following steps.

**Set 1** is the record form on synthesis of components and indicators for evaluating internal quality assurance in special education school. The researcher builds it in the following chronological order.

1. Studying the concept, theories, documents and related literature on the internal quality assurance in basic education level.

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2. Identifying components and indicators for evaluating the internal quality assurance in special education school that is used in the synthesis as the followings.

2.1 Report on The Self Assessment Report of Special Education School (SAR).

2.2 Report monitoring check the educational quality.

2.3 The manual for educational quality assurance in basic education level.

2.4 The results of external quality assurance from parents' organizations.

2.5 The standards for special basic education.

3. Creating the record form of the synthesis on the components and indicators for evaluating the internal quality assurance in special education school.

4. Setting the trial use of record form of the components and indicators for evaluating internal quality assurance in special education school using three record forms.

5. Revising or improving completely before using for record the synthesis of components and indicators.

**Samples** Record forms on synthesis of components and indicators for evaluation

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| Components for Evaluating the Internal Quality Assurance in the School | Gordon (1980). Journal of Cooperative Education | Indonesia (1994). Internal Quality Assurance | Sanders (1995). A Model for School Evaluation | Stufflebeam (1988). The Personnel Evaluation Standard | Miller & Sahn(1999). Built-in Evaluation system | Suwimol (2000). Develop model for internal evaluation |
|---|---|---|---|---|---|---|
| 1. Prepare the factors to support | - | ✓ | ✓ | ✓ | ✓ | ✓ |
| 2. Make information technology | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 3. Use evaluation results | - | - | ✓ | ✓ | - | ✓ |

**Set 2** is the set of questionnaire to ask opinion on indicators or behaviors for implementing internal quality assurance of special education school. The researcher constructs it as the followings.

1. Studying and synthesizing components and indicators in evaluating internal quality assurance of special education school.

2. Constructing the set of questionnaire to solicit opinions on components and indicators or behavior to implement internal quality assurance in special education school.

**Samples**: the questionnaire to ask opinion on indicators or behaviors for implementing internal quality assurance in special education school.

**(For Deputy Directors on Academic Affairs)**

1. Opinion on indicators/indicating behavior for the internal quality assurance in special education school.

**Indication:** Please kindly show opinion if there is any indicators/behaviors that you think should to be parts of the internal quality assurance for special education school that will lead to the internal quality assurance system in good schools.

Indicators/behavior that indicate the good model for evaluating internal quality assurance in special education schools:

1. ……………………………………………………………………………………
………………………………………………………………………………………
………………………………………………………………………………………

2. ……………………………………………………………………………………
………………………………………………………………………………………
………………………………………………………………………………………

**Set 3** is the set of questionnaire on propriety of indicators for evaluating internal quality assurance in special education school. The researcher constructs it through the following ways.

1. Constructing the set of questionnaire on appropriateness of the components and indicators for evaluating internal quality assurance of special education school with the five-rating scale.

2. Checking the quality of the items/questions by checking the clarity of the language and Item Reliability.

   2.1 Checking the clarity of the language by some experts in Thai language, in measurement and evaluation, and in research (total three persons).

   2.2 Testing in a trial use of questionnaire with 30 personnel of the special education school to calculate levels of Reliability and Cronbach's Alpha Coefficient. (The result is the Reliability value at 0.92.)

3. Improving the questionnaire and setting the real questionnaire to be used for data gathering.

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**Samples:** the questionnaire on the appropriateness of indicators for evaluating internal quality assurance of special education school.

| List of Indicators | Levels of Propriety | | | | | Additional Suggestions |
|---|---|---|---|---|---|---|
| | 5 | 4 | 3 | 2 | 1 | |
| 1. Create awareness and appreciate the values of internal quality assurance | | | | | | |
| 2. Create knowledge and understanding on internal quality assurance | | | | | | |
| 3. Implement to collect data from internal quality assurance | | | | | | |

**Data Gathering in Step 1**

During data gathering in Step 1, the researcher gathers information from three sets of tools. The implementation steps are shown as the followings.

1. The data gathering on synthesis of components indicators for evaluating internal quality assurance. The researcher implements the steps in the following ways.

   1.1 Studying and gathering the concepts, secondary data on theories, related literature on internal quality assurance in basic education school as well as the concepts on creating components and indicators from domestic and overseas research.

   1.2 Recording the synthesis result of components and indicators in the record form of synthesis of components and indicators.

2. Collecting data to ask for opinion on components and indicators for evaluating internal quality assurance and synthesizing the data. The researcher implements the steps as the followings.

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2.1 Preparing some letters to ask for cooperation from the branches of research and education development, Faculty of Education Chiang Mai University and sending them to the administrators and personnel of 19 special education schools to ask for permission to gather data in each of these special education schools.

2.2 Sending the questionnaire to 19 special education schools and asking for assistance to send back the filled questionnaire by post. The researcher attaches stamped self-addressed envelopes for respondents to return easily the questionnaires back.

3. Collecting data to check the structure validity of components and indicators for evaluating internal quality assurance through Confirmatory Factor Analysis that is implemented as what follows.

3.1 Preparing the letters to ask for cooperation from the branches of research and education development, Faculty of Education Chiang Mai University and sending them to the administrators and personnel of 19 special education schools to ask for permission to gather information with the administrators and personnel of special education schools.

3.2 Sending sets of questionnaire by post and asking the respondents to send the back by post with stamped self-addressed envelopes back to the researcher's address.

3.3 Contacting through phone the directors of school or personnel who are assigned to be responsible on managing the questionnaire to monitor the filling up of the questionnaires.

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**Statistics used for data analysis in Step 1**

The statistics used for data analysis from the tools has been set into three sets as the followings.

1. The record form for synthesis of components and indicators for evaluating internal quality assurance in special education school, and the analysis of data is accomplished by finding the frequency values.

2. The questionnaire on opinions about indicators or behaviors that implement the internal quality assurance in special education school and the analysis of the data is done by using the frequency values.

3. Questionnaire on propriety of indicators for evaluating internal quality assurance of special education school that is analyzed through the analyses of Mean, Standard Deviation, Correlation Analysis, Exploratory Factor Analysis, and Confirmatory Factor Analysis.

The criteria used of interpreting the propriety for application of components and indicators for evaluating the internal quality assurance in special education school can be judged from the average values given as the followings ( Nilobol Nimkingratana, 2003).

average   1.00-1.49   means   the lowest level of propriety
average   1.50-2.49   means   low level of propriety
average   2.50-3.49   means   moderate propriety
average   3.50-4.49   means   high level of propriety
average   4.50-5.00   means   the highest level of propriety

The criteria that are used for interpreting the propriety of components and indicators for evaluating internal quality assurance is done through the Confirmatory Factor Analysis and the calculation for the structural validity is done by considering the statistics.

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Factor Loading value that is more that 0.30 means that indicators have structural validity (Kiatisuda Srisuk, 2002: 108).

Kaiser-Meyer-Olkin (KMO) value that is more than 0.50 means all variables have sufficient propriety that can be used with the technique of Factor Analysis.

The value of Eigenvalues should be considered in Factor Analysis to have Eigenvalues if it is more than 1.

Testing of assumption of Bartlett's Test of Sphericity in all 10 indicators show correlation so the Factor Analysis is used further.

**Step 2 Development of model and manual for evaluating internal quality in special education school**

Step 2 is classified into two sub-steps as the followings.

**Sub-step 1** synthesizes the model for evaluating internal quality assurance in special education school. The researcher implements the steps as the followings.

1. Studying the concepts, theory and related literature on development of the model of internal quality assurance in basic education school.

2. Synthesizing the contents that come from analysis of components and indicators to extract the model for evaluating internal quality assurance in special education school.

3. Drafting the model and manual of evaluating internal quality assurance in special education school which is composed of objective of evaluation, things to evaluate, evaluator, indicators, and evaluation criteria, methods of evaluation, period for evaluation, and transfer of feedback data.

4. Arranging some meetings to develop and check the model and manual for evaluating internal quality assurance in special

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education school and revising the set back to improve and revise appropriately.

5. Making the draft and manual for evaluating internal quality assurance in special education school.

**Sub-step 2 checks** the propriety and feasibility to use the evaluation model for internal quality assurance for special education school. The researcher implements the steps as the followings.

1. Checking the propriety and feasibility to be brought to use of the model and the manual for evaluating internal quality assurance of special education school. This is done by asking the experts both inside and outside of the school. They are composed of administrators, personnel at special education schools, experts on quality assurance, and experts on measurement and evaluation.

2. Improving the revised version of the model and manual for evaluation according to the experts' suggestions.

3. Applying the model and manual of evaluation for internal quality assurance in special education school that have sufficient propriety and feasibility into real trial. It is composed of four chapters as the followings.

Chapter 1 stands for background and the basic principles for educational management for special education school.

Chapter 2 stands for concepts on internal quality assurance in the school.

Chapter 3 stands for model for evaluating internal quality assurance.

Chapter 4 stands to use for evaluation methods.

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**Sample group in Step 2**

In the research implementation in Step 2, the researcher studies from two sample groups as the followings.

**Group 1** is the group that is used for development of model and manual for evaluating the internal quality assurance in special education school. These are administrators and personnel of special education school such as deputy directors, heads of quality assurance, heads of quality standards, heads of class levels, teachers, personnel who are responsible for educational quality assurance, and academics on education quality assurance (a total of seven people).

**Group 2 is the group** that is used for checking propriety, feasibility and usability such as deputy directors of special education school, heads of quality assurance, heads of educational standards, heads of classes, teachers, officers who are responsible for educational quality assurance, internal evaluators in basic education level, experts on educational measurement and evaluation, educational supervisors in basic education level, and personnel from special education school who have experience on internal quality evaluation (total of 10 people).

**The tools used of research in Step 2**

The tools used for research in Step 2 are set in four steps as the followings.

**Set 1 is** recorded sessions on the Brainstorming to check the draft of the model for evaluating the internal quality assurance in special education school.

**Set 2** is the evaluation form on opinions on the model for evaluation quality assurance in the special education school (Draft) (see Appendix C on page 281).

**Set 3** is the evaluation form on propriety and feasibility of the indicators for internal quality assurance according to the model for evaluating internal quality assurance in special education school (see Appendix C on page 291).

**Set 4 is the** evaluation form on propriety and feasibility for usability of the evaluation model for internal quality assurance of special education school (see Appendix C on page 285).

**The Construction of Tools of Research in Step 2**

The researcher constructs the tools of four sets as the following steps.

**Set 1** is based on record form of the Brainstorming to check the draft of evaluation model for internal quality assurance in special education school. The researcher implements the set into the followings.

1. Studying the draft and the manual for evaluating internal quality assurance for special education school, the standards for special basic education, and the system for internal quality assurance of basic education school.

2. Constructing the record form of the Brainstorming to check the draft of evaluation model for internal quality assurance of special education school.

**Sample: The** record of the Brainstorming)

| Recorded from the Brainstorming |
| --- |
| Date ……………Month ………………..Year …………<br>Time………………Tools………………………………………………………………….<br>Venue …………………………………………………………………………………<br>The list of participants<br>    1. ……………………………………………………………………………<br>    2. …………………………………………………………………………… |

**Issues in Brainstorming**

1. Propriety of the model and the manual for evaluating internal quality assurance.

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2. The coverage of evidence/documents in each indicator.

**Set 2** is the evaluation form on opinion (drafted) on the evaluation model for internal quality assurance in special education school. The researcher implements the set into the following steps.

1. Studying the secondary data, the concept, and related literature on internal quality assurance in special education school and the system for internal quality assurance in basic education school.

2. Indentifying the contents, the question issues regarding attitude towards the evaluation model (drafted) for internal quality assurance in special education school, and the components and indicators for evaluating internal quality assurance.

3. Constructing the evaluation model form on attitude (drafted) towards the evaluation model for internal quality assurance in special education school that is divided into three following parts.

   3.1 Demographic data of respondents through the questionnaire with open-ended questions.

   3.2 Attitude towards ( draft) the evaluation model for internal quality assurance of special education school which is set in five-rating scale.

   3.3 The opinion towards (draft) the evaluation model for internal quality assurance in special education school for each of the components and indicators.

**Samples:** the evaluation form on the attitude (draft) of the evaluation model.

**Part 1**: Demographic data of respondents.

1. Parents' organization…………………………………………………………

2. Highest educational degree ……………. Major …………………………….

3. Work experience on educational quality assurance …………… years.

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**Part 2:** Attitude towards the (draft) evaluation model for internal quality assurance in special education school.

| List | Level of Opinions | | | | |
|---|---|---|---|---|---|
| | **5** | **4** | **3** | **2** | **1** |
| 1. The evaluation model for internal quality assurance in special education school is consistent with the mission of educational management of the school. | | | | | |
| 2. The evaluation model for internal quality assurance in special education school can be used for real implementation. | | | | | |

**Part 3:** Attitude towards the (draft) evaluation model for internal quality assurance of special education school in each component and indicator.

| Number | Statement | Attitude | | |
|---|---|---|---|---|
| | | **No (-1)** | **Uncertain (0)** | **Yes (1)** |
| **Component 1: Preparation before the evaluation** | | | | |
| 1. | Appointed personnel will be responsible for evaluating internal quality assurance | | | |
| 2. | Providing knowledge on evaluating internal quality assurance | | | |
| 3. | Identifying the implementation plan for evaluating internal quality assurance | | | |

     **Step 3** is the evaluation form on propriety and feasibility of indicators for internal quality assurance according to the evaluation form of internal quality assurance in special education school. The researcher implements the step as the followings.

          1. Studying the concepts, principles, or theory in related literature about internal quality assurance regarding the criteria on internal quality assurance of basic education, educational standards of the school, reports

on monitoring, and reports on checking of the quality and the annual implementation of the school.

2. Identifying the questions and issues regarding the propriety of indicators for internal quality assurance according to the evaluation model for internal quality assurance for special education school.

3. Constructing the evaluation form on the propriety and feasibility of indicators for internal quality assurance according the evaluation model of internal quality assurance for special education school. It is divided into two parts as the followings.

   3.1 Attitude toward propriety and feasibility of indicators for internal quality evaluation according to the evaluation model quality assurance of special education school. It is set in five rating scale.

**Sample: evaluation form** on propriety and feasibility of indicators

| List of Indicators | Level of Propriety to School Context | | | | | Level of Feasibility for Application | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 5 | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 |
| **System 1 Identifying the educational standards of the school.** | | | | | | | | | | |
| 1. Holding meetings among stakeholders to make educational standards of school | | | | | | | | | | |
| 2. Identifying educational standards and identify indicators that are components of educational standards | | | | | | | | | | |
| 3. There is consistency with targets of educational management of the school on identity, uniqueness, vision of the school, and basic educational standards | | | | | | | | | | |

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3.2 Suggestions on indicators for internal quality assurance

**Sample: Suggestions on** indicators for internal quality assurance

1. Suggestions on indicators for indicator internal quality assurance according to the model for internal quality assurance of special education school.

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**Set 4** is the evaluation form on propriety and feasibility for application of evaluation model for internal quality assurance in special education school. The researcher implements the set into the following order.

1. Studying the principles, concepts, theory, secondary data, and related literature on internal quality assurance in basic education school and preparing the draft of manual for evaluating internal quality assurance in special education school.

2. Identifying the contents of questions and issues on propriety and feasibility of application of the evaluation model for internal quality evaluation in special education school.

3. Constructing the evaluation form on attitude towards propriety and feasibility for application of evaluation model for internal quality assurance in special education school. The form is divided into two parts as the followings.

3.1 Attitude towards propriety and feasibility for the application of evaluation model for internal quality assurance in special education school. It is settled in five rating scale.

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**Sample:** Evaluation form on the propriety and feasibility for the application of model

| List of Consideration | Level of Propriety to School Context | | | | | Level of Feasibility for Application | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 5 | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 |
| 1. Principles and reasons of the evaluation model for internal quality assurance in special education school | | | | | | | | | | |
| 2. Objective of the evaluation model for internal quality assurance of special education school | | | | | | | | | | |
| 3. Make plan and identify the evaluation frame according to the evaluation model | | | | | | | | | | |

        3.2 Additional opinion or attitude towards the evaluation model for internal quality assurance of special education school.

    **Sample:** Additional attitude towards the evaluation model

        1. The suggestion that you think would help developing better the evaluation model for internal quality assurance in special education school:

…………………………………………………………………………………………………
…………………………………………………………………………………………………
………………………………………………………………………………………………

        2. Other additional opinion:

…………………………………………………………………………………………………
…………………………………………………………………………………………………
…………………………………………………………………………………………………

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**Data Gathering in Step 2**

In the data gathering of Step 2, the researcher gathers information from three groups of samples. The steps are shown below.

1. Gathering the data to develop the evaluation model for internal quality assurance for special education school. The implementation steps are done as the followings.

   1.1 Preparing the letters to request cooperation from the research and educational development branches, Faculty of Education Chiang Mai University and sending them to the directors of special education schools to ask for permission to arrange the Brainstorming sessions on the drafting of the evaluation model for the internal quality assurance in special education school.

   1.2 Collaborating with the heads of quality assurance who are assigned by the school directors to be coordinators and implementing personnel of the research.

   1.3 Collecting the data from the committees who are assigned to participate in Brainstorming sessions (a total of seven people).

2. Collecting the data on opinion/attitude towards the (drafted) evaluation model for internal quality assurance for special education school. The implementation follows the following steps.

   2.1 Preparing the letters to request assistance from the branch research and educational development, Faculty of Education, Chiang Mai University and sending the letters to 19 special education schools to ask for help in evaluating attitude towards evaluation model for internal quality assurance of special education school.

   2.2 Disseminating the evaluation by post to the respondents and asking them for help to return the filled up forms by post. The

envelopes to keep the filled up forms are sent with stamped self-addressed for convenience for the respondents.

2.3 Contacting the respondents to cooperate by returning the evaluation forms after two weeks from acceptance.

3. Collecting the data on propriety and feasibility of indicators for internal quality assurance according to the evaluation model of internal quality assurance of special education school. The steps of implementation are shown as what follows.

3.1 Making letters to ask for cooperation from the branch of research and development, Faculty of Education Chiang Mai University and sending the letters to the experts on internal quality assurance for help in evaluating propriety and feasibility of indicators for internal quality assurance according to the evaluation model for internal quality assurance for special education school.

3.2 Disseminating personally the evaluation form on the propriety and feasibility of indicators for internal quality assurance of special education school to the experts and arranging to get the returned evaluation form.

3.3 Collecting the data on the returned evaluation form from the experts based on appointment.

4. Collecting the data on propriety and feasibility for application of evaluation model on internal quality assurance of special education school. The steps are done as what follows.

4.1 Writing letters to ask for collaboration from the branch of research and educational development, Faculty of Education Chiang Mai University to ask for help in checking the content validity and the indicators that need to be measured. The researcher sends the evaluation form to the experts personally.

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4.2 Contacting the experts to appoint to receive from them the evaluation form on propriety and feasibility for application of the evaluation model for internal quality assurance of special education school.

4.3 The researcher gathers the returned evaluation forms from the experts according to the appointment.

**Statistics used for data analysis in Step 2**

The researcher utilizes the statistics in analyzing the data by using four sets of tools as the followings.

1. Records on the Brainstorming sessions to check the draft of the evaluation model for internal quality assurance in special education school. The data is analyzed by using the Content Analysis.

2. Evaluation forms on attitude (drafted) towards the evaluation model for internal quality assurance of special education school. The data is analyzed by calculating the means and standard deviations.

3. The evaluation form on propriety and feasibility of indicators for internal quality assurance according to the evaluation model for internal quality assurance in special education school. The analyses are done by calculating the data's means and standard deviations.

4. Evaluation form on propriety and feasibility of application for evaluation model for internal quality assurance of special education school to be analyzed by means and standard deviations.

Criteria used for interpreting the attitude on propriety and feasibility of evaluation model for internal quality assurance for special education school (Nilobol Nimkingratana, 2003).

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average   1.00-1.49   means   Have propriety/feasibility at lowest level

average   1.50-2.49   means   Propriety/feasibility at low level

average   2.50-3.49   means   propriety/feasibility at moderate level

average   3.50-4.49   means   propriety/feasibility at high level

average   4.50-5.00   means   propriety/feasibility at highest level

## 3.3 Step 3 to Study the results of Trial Use of the Model and the Manual for Evaluating Internal Quality Assurance of Special Education School

Step 3 is divided into two sub-steps as the followings.

**Sub-step 1** the trial use of the model for evaluating internal quality assurance in special education school as the followings.

1. Selecting the special education school for the trial use of the model and manual for evaluating the internal quality assurance of special education school. This includes getting a special education school that is willing to allow the researcher for the trial use of the model and the manual for evaluation.

2. Sending permission letters from the research and educational development branch, Faculty of Education Chiang Mai University to the directors of special education schools to ask for cooperation to allow the researcher to make a trial use of the model and the evaluation model in the special education school.

3. Sending the permission letter for trial use of the evaluation model for internal quality assurance for special education school to the directors of special education school personally. The researcher asks for permission to set the trial use of evaluation model as well as offering reasons and necessity of research including the impact that may occur from the research.

4.  Preparing the materials and manual for evaluation and then collaborating with the heads of quality assurance of special education school to arrange a meeting to identify the details for trial use of the model and the manual for evaluating the internal quality assurance. This is important for the evaluation committees to understand the objectives and the methods to use the model and manual of evaluation.

5. Identifying together with school personnel the calendar for trial use of the model and the manual for evaluating the internal quality assurance of special education school.

6. Setting trial use of model and the manual for evaluation according to set calendar, analyzing the result of trial use, and summarizing the results of the evaluation. The committees report the results of evaluation to the administrators and relevant personnel on educational quality assurance of the school. The researcher, along with another assistant researcher, sets agreement on the issues that the researcher wants to gather as data from the trial use of the model and the manual.

**Sub-step 2 or evaluation to bring the results** to include the evaluation model for internal quality assurance of special education school is implemented as what follows.

1. Studying the secondary data, concepts, principles, and theories on quality evaluation of the model.

2. Identifying the objectives of the model evaluation based on the standard criteria of evaluation on four aspects which are (1) on Utility Standard, (2) on Feasibility Standard, (3) on Propriety Standard, and (4) on Accuracy Standard.

3. Constructing the evaluation form on quality of the model and manual for evaluating the internal quality assurance for special education school to

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use for evaluating the quality of the model and the manual for evaluation. The persons who take responsibility for evaluating the model and the manual for evaluation are people who have highly experienced with evaluation models for internal quality assurance in special education school.

4. Bringing the evaluation result that is used to improve and revise the model and the manual for evaluating the internal quality assurance of the special education school into a better model.

**The Sample Group in Step 3**

The researcher studies in Step 3 the following sample groups.

**Group 1 is the** group used in experiment to evaluate the internal quality assurance for special education school as the followings.

Group 1 is used for the trial use of the model and manual for evaluating internal quality assurance for special education school. According to the discovery in research's Step 2 it is the evaluator team composed of deputy directors or academic affairs, deputy director of administration, heads of quality assurance, heads of educational standards, heads of class levels, and teachers (a total of 6 people).

Group 2 is the group that involves in the trial use of quality evaluation of the model and the manual for evaluating internal quality assurance of special education school. They are composed of administrators and personnel of special education school who are the targets (a total of 10 people). They are evaluator team and administrators of the school who use the model and manual for evaluating internal quality assurance of special education school.

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**The Tools used in Research Step 3**

The tools used in Step 3 are divided into four sets as the followings.

**Set 1 is the** form to check documents or evidence of indicators for internal quality assurance of special education school (see Appendix C on page 300).

**Set 2** is the record form on observation of evaluating internal quality assurance of special education school (see Appendix C on page 303).

**Set 3** is the evaluation form on satisfaction on the manual for evaluating the internal quality assurance of special education school (see Appendix C on page 307).

**Set 4** is the evaluation form on the quality of the model and the manual for evaluating the internal quality assurance in special education school (see Appendix C on page 310).

**The Construction of Tools used for Research in Step 3**

The researcher constructs the tools by using the following steps.

**Set 1** is the check form of documents or evidence of indicators for internal quality assurance in special education school. The implementation of the construction is accomplished as the followings.

1. Studying on secondary data, documents, and manual for evaluating internal quality assurance in special education school.

2. Creating the check form of documents or evidence of indicators for internal quality assurance in special education school by applying in trial use to check the indicators of internal quality assurance in three systems.

3. Improving the check form into a more efficient form.

4. Bringing the check form of documents or evidence of indicators for internal quality assurance in special education school to really apply in evaluating the internal quality assurance of special education school.

**Sample:** check form of documents/evidence of indicators

| **System 1** Identifying educational standards of school | **Documents/ Evidence** **(Can be more than 1 item chosen)** | **Remark** |
|---|---|---|
| | 1. The command to appoint the committee board to implement to make basic educational standards. 2. The special educational standards in Basic Education Level. 3. The development plan for educational management that is approved by the school committee board. | |

Summary of the check of documents/evidence

Evidence found………List of check that is not found…………List of items

**Set 2** is the record form on observation and evaluating the internal quality assurance for special education school that is implemented chronologically as the followings.

1. Study over the secondary data on the model and manual for evaluating internal quality assurance for special education school.

2. Construction of the record form on conserving and evaluating internal quality assurance of special education school to cover the manual for evaluation.

3. The researcher's using the record form for observing together with the external experts on internal quality assurance in basic education.

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**Sample**: The record form on the observing the evaluation

| Indicator Number | Propriety in Implementation | | | | | Suggestions |
|---|---|---|---|---|---|---|
| | 5 | 4 | 3 | 2 | 1 | |
| 1. Appointing personnel to responsible for evaluating internal quality assurance | | | | | | |
| 2.Giving knowledge on evaluating internal quality assurance | | | | | | |
| 3.Identifying the implementation plan to evaluate internal quality assurance | | | | | | |

**Set 3** is the evaluation form on satisfaction towards the manual for evaluating the internal quality assurance of the special education school that can be implemented chronologically as shown below.

1. Study over the materials and manual for evaluating the internal quality assurance of special education school.

2. Identification of the questions or items from synthesis of the manual for evaluating internal quality assurance in special education school.

3. Construction of the evaluation form on satisfaction towards the manual for evaluating internal quality assurance in special education school.

4. Settlement of trial use of the evaluation on satisfaction towards the manual for evaluating the internal quality assurance of special education school. The personnel who are responsible for the quality assurance of the special education school are three people.

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5. Improvement and revision of the evaluation form on satisfaction towards the manual for evaluating internal quality assurance of special education school before the application in real evaluation.

**Sample:** Evaluation form on satisfaction towards the manual

| List for Consideration | Level of satisfaction | | | | |
|---|---|---|---|---|---|
| | High est | High | Mod erate | Low | Low est |
| 1. Explain the background, reason for evaluating in the manual for evaluation | | | | | |
| 2. Identify the details and give information in Chapter 1 | | | | | |
| 3. Explain the steps of the methods to implement the evaluation of the Chapter 2 Component 1 (on Preparation before Evaluation) | | | | | |

**Set 4** is the evaluation form on the quality of the model and the manual for evaluating the internal quality assurance in special education school, which is implemented to construct chronologically as the followings.

1. Study over the principles, concepts, and literature on the quality evaluation of the model.

2. Identification of the questions or items from synthesis of documents.

3. Construction of the evaluation form on the quality that has the contents composed of four aspects which are on the utility, on feasibility, on propriety, and on accuracy.

4. Application of the evaluation form on the quality of the model and the manual for evaluating internal quality assurance in special education school into a trial use to ask the administrators and related relevant personnel to evaluate the system of internal quality assurance in special education school (total of three people).

5. Improvement of the evaluation form into a more efficient form before used in real evaluation.

**Sample:** The evaluation form on the quality of the model and the manual for evaluation

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| Statement | Level of Opinion | | | | |
|---|---|---|---|---|---|
| | Highest | High | Moderate | Low | Lowest |
| **On Utility** | | | | | |
| 1. The model and the manual for evaluating internal quality assurance is useful for developing the quality of school | | | | | |
| 2. The model and the manual for evaluating the internal quality assurance is useful for developing the implementation on the internal quality assurance of the school | | | | | |

### Data Gathering in Step 3

In data gathering in Step 3, the researcher implements the research through the following steps.

1. Collecting information through documents/evidence of indicators for internal quality assurance of special education school. The researcher proceeds as the followings.

    1.1 Clarifying the use of check form of material evidence with the committee board for evaluating internal quality assurance in special education school.

    1.2 Evaluating by the committee boards the internal quality assurance in special education school. They gather data and record it in the check form of documents or evidence indicators for internal quality assurance.

2. Gathering the data from the observation of internal quality assurance in special education school as the researcher implements the following steps.

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2.1 Collaborating by the researcher and experts on the quality assurance of Basic Education School from outside to understand and set plan together on data gathering from the record form on observing the evaluation.

2.2 Recording the data by the researcher and external experts record in the record form of observing the evaluation of internal quality assurance in special education school.

3. Collecting data by collection on the evaluation on the satisfaction towards the manual for evaluating the internal quality assurance of special education school. The researcher implements the following steps.

3.1 Identifying objectives of research to the committee boards before evaluating the internal quality assurance in special education school and then giving the evaluation form on the satisfaction towards the manual of evaluation after the completion of evaluating internal quality assurance in special education school to the committee board of evaluation.

3.2 Gathering the evaluation form on satisfaction towards the manual for evaluating the internal quality assurance in special education school from the committee board of evaluation to analyze and summarize.

4. Gathering the data on the quality of the model and the manual for evaluating internal quality assurance for special education school. The researcher implements the steps as the followings.

4.1 Finalizing a plan to collect data with the head of internal quality assurance of special education school that will be used for experimental or trial use of the evaluation model on the data collection with the personnel related to evaluating the internal quality assurance for special education school.

4.2 Disseminating the evaluation form on the quality of the model and the manual for evaluation to the head of quality assurance to bring to data gathering with the personnel identified.

4.3 Cooperating with heads of quality assurance to ask for the returned evaluation form.

**Statistics used for data analysis in Step 3**

The analysis of the data using the tools is accomplished through the following steps.

1. Checking form of documents or evidence of indicators for the internal quality assurance system in special education school through the analysis of data frequency.

2. Analyzing the recorded forms of observation, evaluation on internal quality assurance of special education school, evaluation form on satisfaction towards the manual for evaluation, and evaluation form on the quality of model and the manual for evaluating the analysis through the means and standard deviations.

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