

Chapter 3

Research Methodology

This research is mixed method research, qualitative and quantitative methods.

The details about the research method as follows:

1. Population and sample size
2. Research instruments
3. Data collection
4. Data analysis
5. Statistics Used for the Research

Research Design

There are two stages about research design:

1. To study the current states of the academic administration in high school in seven aspects: curriculum management director support, teaching process, measurement & evaluation, media setting for instruction, research for developing the quality the course; coordination and cooperation. There are totally 50 secondary schools in Fuzhou Fujian province. In order to ensure the validity of the research, the researcher would randomly choose 1 school in Fuzhou in order to collect the data. The statistics used will be frequency, percentage, mean and standard deviation.

2. To identify the guidelines to improve the academic administration in high schools in Fuzhou Fujian province from interviewing some experienced teachers, administrators, and experts.

Population and Samples

1. Population

This study population takes a total of 134 teachers and 28 administrators in Fuzhou High School of Fujian Province

1. Samples

The sample size was 130 teachers and 20 administrators were surveyed in this questionnaire. In order to make the data results highly reliable, the sample size was calculated by used Yamane the formula as:

$$n = \frac{N}{1 + Ne^2}$$

Research Instruments

The survey work of this research topic adopts two methods.

1. One is a survey questionnaire. Distribute questionnaire to teachers, administrators. The survey mainly adopts self-designed questionnaires, which include 3 parts:

Current situation of Academic administration

- Curriculum management
- Teaching process
- Evaluation

Management (Plan, Do, Check, Act) of academic administration

- Curriculum management
- Teaching process
- Evaluation

2. A set of Question for focus group discussion

For asking 8 to 10 people to form the focus group.

The steps of designing the research tool include the following:

1. To clearly define the object of the questionnaire based on the purpose of the research study.

2. To create the questionnaire consisting of questions about level of academic administration in high schools in Fuzhou Fujian province. The questions were designed based on the conceptual framework derived from the review of concepts, theories and relevant research literature including all variables. There are two sections of questions in the questionnaire as following:

Part 1: Questions about personal information.

The informants can use a checklist to answer questions about position

Part 2: Questions about levels of academic administration of in high schools in Fuzhou.

The informant can answer questions by selecting a number from a rating scale of 1 to 5; each number represents the level of practices.

The rating scale of 5 to 1 in the current state refers to the level of practices:

5 =the highest level of practice in the current state

4 = the high level of practice in the current state

3 = the moderate level of practice in the current state

2 =the low level of practice in the current state

1 = the lowest level of practice in the current state

The questionnaire also set three open questions with interview.

Part 3: To examine the validity of the questionnaire.

3.1 The advisor examined the drafted questionnaire on its content validity and clear usage of language to ensure the questionnaire is appropriate for the research study and has breadth of content coverage

3.2 The questionnaire is revised based on the suggestion of advisor.

3.3 The revised questionnaire was examined by three specialists on its content validity and suitability. ($IOC \geq 0.67- 1.00$)

3.4 To examine the reliability of the questionnaire. The Cronbach's Alpha Coefficient formula is used to compute the data collected to identify the reliability value of the questions; The alpha reliability coefficients of total questions is 0.9588.

Data Collection

Implementation of questionnaire survey form teachers and administrators the survey subjects.

In this survey, a total of 162 questionnaires and were distributed to 134 teachers and 28 administrators as sample group by online.

1. Select related people from the school as the sample group.

2. Implement questionnaires in the sample group.
3. Collect data from the experiment.

Data Analysis

In the questionnaire survey, Excel software will be used to classify, describe, summarize and summarize the data collected by the questionnaire survey, and conduct an all-round analysis of the attributes of the data. Data need to be analyzed by calculation.

Any analytical reflection begins with the descriptive analysis method, which seeks to provide an answer to the question of what transpired. It accomplishes this by arranging, modifying, and deciphering unprocessed data from multiple sources to produce insightful knowledge for your company.

Statistics Used for the Research

1. Percentage (%)
2. Mean

This research will use the following (\bar{x}) formula to calculate the average value of samples.

$$\bar{x} = \frac{\sum x_i}{n}$$

2. Standard deviation (*S.D.*)