

A study on the graduate students' output regarding educational evaluations in Taiwan

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Abstract

The purpose of this study is to discuss the trends and issues within the scope of the educational evaluation researches from masteral theses and doctoral dissertations in Taiwan. Utilizing the content analysis paradigm, this study synthesizes a total of 466 masteral theses and doctoral dissertations. Meta-analysis method is used to analyze and evaluate the collected theses. Findings were gathered and compared. Suggestions and recommendations were then given accordingly.

Keywords: educational evaluation; Taiwan; graduate students; meta-analysis; school performance

A meta-analysis on preschool evaluation researches in Taiwan

1. Introduction

Previously, there have been studies discussing various evaluation results and have tried to find out the areas that have been discussed the least or the topics that require further studies. Such concept is helpful for potential researchers in which to identify appropriate research topic. The aim of this study is to present multiple academic styles in evaluation, and to suggest that evaluation is not only a technical operation, but is also worthy of discussion and investigation including issues such as its epistemology, methodology, politics, and ethics.

1.1 Terminologies

Educational evaluation is to systematically evaluate the value or advantage of a certain object, which should include evaluation objectives, contents, procedures, criteria, model, and more importantly the application of evaluation results (Scriven, 1981a, 1981b).

Content analysis is a research method that analyzes the contents systematically, objectively and by using quantitative description. After deciding on the research questions and setting up the hypothesis, researchers must identify the target population and select research samples within it. Finally, the researchers need to clearly categorize the information contents and give the codes to sample contents based on the categories so as to compare them (Cohen, Manion, & Morrison, 2000).

2. Literature Review

After the reorganization of Taiwan higher education institutions; the numbers of universities with education evaluation degree in the Northern area is around 26, while Middle area is around 9 with the Southern area of 21, and lastly Eastern area of 3. Total department numbers are 34, research subject includes meta-evaluation, evaluation indicator construction, content analysis, present situation discussion, and case study. While data collection tool mostly includes questionnaire, survey, test, interview, literature analysis, discussion, experiment, and so on. Research territory includes data compilation, elementary school, junior high school, senior high school, vocational school, university, early childhood, special education, teacher education, comparative studies, teaching institutions, vocational university, education indicator, evaluation personnel, military school, and many others. Writing years ranges from 1976 to 2007; altogether around 31 years.

Under the premise of comprehensive quality control and achievements responsibility; evaluation system in Taiwan encompasses an important mechanism of the government. This entity monitors the management of education quality. Looking back, education evaluation development has its vein since the start of the educational systems. Its evolution can be separated into four stages: The first generation regards education evaluation as an education survey and examination; the second generation regards education evaluation as judgment conforms to the degree of performance and goal; the third generation regards education evaluation as specialized judgment idea; while the fourth generation regards education evaluation as to provides the information in aiding decision-making (and policy making). For the school education evaluation in recent years, what concerns the most is the level of educational development. Such objectives can be justified by four main points: The lack of educational resources, the question of public school achievements, issues of curriculum and teaching strategy, and the need to become competitive.

2.1 The definition of education evaluation

Evaluation is generally regarded as a comparison of research, measure, goal or result, it may be a reference of professional judgment, checkup, quality control, collect and afford data (Worthen, Sanders, & Fitzpatrick,

1997).

Various organizations and experts have also provided adequate meanings of evaluation:

- *Education evaluation means to judge value and advantage of one phenomenon systematically (JCSEE, 1994).*
- *Education evaluation means one profession with dynamic and not to perfect, the evaluation model is suitable in 21century, stakeholders will participate in the evaluation process, advance with multiplex way (Scriven, 1981b).*
- *Furthermore, evaluation can also be considered as the delineation, obtaining, providing useful information, causing to match the need of achievements responsibility policy (Stufflebeam, 2001).*
- *Lastly, Worthen et al. (1997) stated that education evaluation means one research, measure or comparison between subject and result, from professional judgment, inspection and quality control, data and information collected in order to make policy.*

Here it is discover that the definition of evaluation means from formal and informal education phenomenon with a multiplex way to collect the useful data and information, to judge value and tallying the need of achievements responsibility in order to make policy. Such will be the process of education-related phenomenon and activity to obtain both the qualitative and quantitative information. Analyses shall then be done objectively; while description and judgment of evaluation result are given at the end. Ultimately, the goal of policy-making to further enrich the quality of education shall be accomplished. It is also said that the goal of Education evaluation may use and dispose manpower or resources of education, establishment the education effect, progression achievement responsibility, understanding the present education situation, and reduce educational expenses waste (OECD, 1999; Worthen et al., 1997).

3. Method

In recent year, Taiwan had Implemented many types of education evaluation, all of the for the evaluation will be to understand the advance result, In which the contents of junior high school education evaluation include organization and administration, curriculum and teaching, environment and equipment, teacher and profession, lectures and counsels, parents and community, and the contents of elementary school education evaluation include administration management, curriculum and teaching, professional develop, lectures and counsels, parents, school characteristic and so on.

This study collect the evaluation-related literature and analyze, to be the theory foundation, then record the literature with the data sheet of content analysis of the education evaluation degree researches Statistical Package for Social Science, In order to explore the Implementation situation and trend of development of education evaluation in Taiwan.

3.1 Participants

There are 466 master and doctoral theses reviewed in this study, and all of them focus on educational evaluation in Taiwan.

3.2 Content analysis

Such studies do not bring any impacts on the research objects as it is mainly to study the recorded events of human communications. The research data includes books, magazines, web pages, newspapers, songs, paintings, speeches, laws etc. This study focused on the master and doctoral theses, coding the contents of the research objects for analysis. Data analysis begins after the data collection is completed.

The evaluation objects in Taiwan are varied, hence, for the project evaluation, curricula evaluation; teaching material evaluation, staff evaluation, school business evaluation, sports evaluation, evaluation of lunch offered in school, gender education evaluation, are all considered and compiled. Educational evaluation has always been focusing on the performance, thus, it mostly adopts external evaluation. Through reviewing the degree theses of evaluation-relevant topics in the past thirty years, we can understand the practical and theoretical aspects of evaluation.

4. Findings

Content Analysis of the topic of educational evaluation among master and doctoral theses in Taiwan:

- The theses related to educational evaluation were the most in 2005, altogether 93 papers, taking up approximately 20 percent, followed by those in 2004, altogether 78 papers, taking up 16.7%, while 63 papers in 2005, taking up 13.5%.
- The most of the relevant theses were done by researchers in Taiwan Normal University, altogether 62 papers, taking up 13.3%, followed by National Taipei University of Education, altogether 50 papers, taking up 10.7%, National Kaohsiung Normal University altogether 44 papers, taking up 9.4%.
- Coverage of the research target population: The range of the target population covers from elementary, junior high school and university; they take up 41%, 12%, and 12.4%, respectively, it demonstrate that the three territory are the most first to choose by doctor and master student, focus on evaluation personnel, evaluation data analysis and military school researches are the least research territories
- Departments that have highest graduation rate: It is the highest in the department of education, altogether 166 papers, taking up 35.6%, followed by the graduate school of educational administration, altogether 40 papers, taking up 8.6%, graduate institute of educational policy and management, altogether 36 papers, taking up 7.7%, it demonstrate that the evaluation researches of education department is the most.
- Public versus private schools: Public schools take up more of the percentage (altogether 34 papers, 57.6%) while private schools altogether 25 papers, take up 42.4%.
- The areas where the research objects located: Most of the research objects belong to a category that contains several areas, altogether 254 papers, taking up 54.4%, followed by the number of objects located in Taipei city, altogether 44 papers, taking up 9.4%.
- Research methods: There are more qualitative studies than quantitative ones, altogether 165 papers, taking up 41.4% and altogether 115 papers, taking up 25.1%, respectively.
- Research topics: Most of the topics are tend to be content analysis, altogether 227 papers, taking up 48.7%.
- Number of valid sample among all the theses reviewed: Studies that held more than 300 subjects in the sample are the most, altogether 306 papers ,taking up 61.2%, the next is 301 to 600 altogether 111 papers, taking up 25.1%, but among all of the researches, there are 2100 objects of study of two researches.
- Research tools: Among the theses reviewed, the research tool is mainly by questionnaire survey, altogether 355 papers, taking up 40.8%, followed by the literature analysis, altogether 128, papers, 27.5%, experiment method is the least, only 2 papers.
- Degree: Master degree papers altogether 434 papers, taking up 93.1%, while doctoral degree papers altogether 32 papers, taking up 6.9%.

- Cross analysis of the range of studies and schools: Theses that focus on evaluation on the elementary school level are the most, taking up 21.4%, followed by those on junior high school level, taking up 0.6%, done by researchers in the department of education.
- Cross analysis of research method and schools: The most popular method is the mix modal of quantitative and qualitative methods. Among the theses reviewed, those done in Taiwan Normal University are the most, taking up 0.06%, followed by those done in National Taipei University of Education, 0.04%.
- Cross analysis of departments and research methods: Qualitative method is more popular than the mix-model of quantitative and qualitative methods.
- Cross analysis of departments and research topics: Most theses done in the Department of Education adopt content analysis method, 0 taking up.17%, followed by the method of index structure done in the department of education, taking up 0.10%.
- Cross analysis of Range of research target population and schools: The elementary school researches amount of National Taipei University of Education is the most altogether 31 papers, the elementary school researches amount of Taipei Municipal University of education is the most, altogether 20 papers.
- The elementary school researches amount of department of educational administration, altogether 100 papers, taking up 21.4%, the next is the junior high school researches of department of education, taking up 6%.
- Cross analysis of research methods and schools: The mix research method of the National Taiwan Normal University is the most, altogether 28 papers, taking up 6%, while the next is the National Taipei University of Education, altogether 20 papers, taking up 4%, the content research method of the National Taiwan Normal University is the most, altogether 35 papers, taking up 7.5%, with National Kaohsiung Normal University, altogether 29 papers, taking up 6.2%.
- Cross analysis of degree and research theme: The content research method of the master degree is the most, taking up 45.9%, altogether 102 papers, taking up 21.8%, the education indicator research of the doctor degree is the most, altogether 15 papers, taking up 45.9%,the next is the content research, altogether 14 papers, taking up 45.9%.

5. Conclusions

Findings are as such:

- The number of degree theses increased the most between 2002 and 2006, and reached the highest during 2006 for the past 30 years.
- Taiwan Normal University held the most theses regarding educational evaluation, followed by National Taipei University of Education, and National Kaohsiung Normal University.
- Theses focusing on the educational evaluation are mostly done in the department of education, followed by the graduate school of educational administration and the graduate school of educational policies.
- Theses passed the graduation criteria are done in the graduate school of education at National Kaohsiung Normal University.
- Most of the research objects belong to a category that contains several areas, followed by the number

of subjects located in Taipei and Kaohsiung city.

- Most of the research topics tend to be content analysis, followed by index structure and analysis of current status.
- Most of the research methods adopted in the theses reviewed are qualitative method, followed by the mixed modes of qualitative and quantitative methods.
- The data collection tool used the most among the theses reviewed in this study is questionnaire survey, followed by analysis of literature reviews, and interviews.
- The range of research subjects mainly focus on the evaluation at the elementary level, followed by the university level, and at the junior high school levels.
- Number of valid sample among all the theses reviewed is more than 300 participants, followed by those of subjects between the numbers of 301 and 600.

5.1 Cross-analysis results

- The department researchers graduated from has impacts on the research range they selected. High percentage of researchers who graduated from education-related departments chose to study the evaluation at the elementary, junior high school and university levels; those who graduated from industrial education department mainly chose to study vocational education evaluation; those who graduated from civil education mostly chose on preschool education evaluation. It shows that researchers in different majors chose different research ranges.
- Theses focusing on education evaluation that were awarded with degrees are mainly from National Taipei University of Education, Taipei Municipal University of Education, and National Hsinchu University of Education, and many others. Also, the range of study mainly focuses on the educational evaluation at the elementary level. Then theses that were awarded with degrees from Taiwan Normal University and Kaohsiung Normal University were mainly focusing on the educational evaluation at the junior high school level. Due to the differences between students studying in universities of education and Normal universities, the selection of research range is varied; among the private universities, degree theses in Tamkang University were taking up high percentage and focusing on the educational evaluation at the university level.
- In terms of the research method, theses in Taiwan Normal University and National Taipei University of Education mostly adopted mix-modal of quantitative and qualitative methods. Theses in some universities adopted single research method, in which the most popular research method adopted by researchers in Taiwan Normal University and National Kaohsiung Normal University was the qualitative method. Those in Taiwan Normal University and National Taipei University of Education adopted more of the quantitative method. Mixed-modal of qualitative and quantitative method was used the most in Taiwan Normal University and National Taipei University of Education. The researcher of this study found that the selection of research method is relevant to the educational programs of the university, students' expertise and the guidance from the advising professor. Those areas are worthy of further studies.
- The research topic of meta-analysis of the education evaluation was presented mostly among theses in National Taipei University of Education, it of index structure was presented the most in National Taipei University of Education as well, it of content analysis was presented the most in Taiwan Normal University, it of current status analysis was presented the most in Taipei Physical Education College, and it of case study was presented the most in Taiwan Normal University.

- Among all the doctoral theses reviewed, the researchers mainly adopted index structure while fewer of them adopted current status investigation. Among all the master theses reviewed, the researchers mainly adopted content analysis while fewer of them adopted meta-analysis of evaluation.

5.2 Recommendations

This study concludes the following suggestions based on the research results:

- A. Suggestions for studies relevant to the educational evaluation
 - The range of study should be extended to various extend for investigation
 - Researchers should adopt multiple research methods and data collection tools
- B. Suggestions for studies regarding the trends and issues of the educational evaluation
 - In terms of research method design, future studies should include the method of meta-analysis to investigate and analyze the results of domestic education evaluation.
 - The source of potential research subjects may be included in journals, technical reports, and many others

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