

DOCTORAL DISSERTATIONS IN THE FIELD OF HUMANITIES AND SOCIAL SCIENCES OF BURAPHA UNIVERSITY, CHONBURI, THAILAND.

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ABSTRACT

The purpose of this research was to investigate on the research methodology of the doctoral dissertations of graduates in the field of Humanities and Social Sciences of Burapha University from year 2002 -2010 by examining sampling design, sample size, research instruments, and statistical devices used to analyze data. The methodology employed in the study involved the synthesis of secondary data sets from methodological scans of doctoral dissertations in the field of Humanities and Social Sciences of Burapha University from year 2002 -2010. There were 60 dissertations available for this study from seven faculties. The study used content analysis to quantify the data by providing descriptive frequencies.

The results of relationship analysis between research methodologies and the year of graduation, sampling design, sample size as well as statistical devices indicated that the tendency of using mixed methods and qualitative research methodologies were increasing during 2008 - 2010. With reference to qualitative research methodologies, almost all the dissertations used the non-probability purposive sampling method, with the sample size of less than 100 units. As for quantitative research methodologies, the probability random sampling method, with a large sample size (400 units upward) was found mostly used.

Concerning statistical devices, principles of content analysis, descriptive statistics, and inferential statistics were employed for the data analysis. As for inferential statistics, advanced statistics methods were used in the highest number; while univariate statistics methods and multivariate statistics methods were used in the equal number.

Keywords: Doctoral degree dissertation, research methodologies, Humanities and Social Sciences

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INTRODUCTION

The development of educational quality and standards of education provision at all types and levels are to be in accordance with economic and social changes, and can be achieved by developing the quality of teachers and educational personnel to be able to keep up with changes occurring in the global societies (Office of the Secretariat of the Senate, 2007, p. 23-24). This is congruent with the goals of the long-term higher education framework, which states that it is essential to enhance the quality of Thai higher education for the purposes of producing and developing personnel in quality and ability to adjust themselves to long-life jobs, and for developing the potentiality of higher education in creating knowledge and innovations to increase the competitive edges of Thailand in the globalization trend (Office of the Higher Education Commission, 2007, p. 3).

Burapha University has declared itself to become a research-based university in which staff need to do more research instead of concentrating on students studying for a Master degree should be encouraged to enroll in Plan A (Master by research) and results of doctoral dissertations must be published in both national and international journals (Burapha University, 2011). Moreover, the criteria of the external educational quality assurance at Higher Education level of the Office for National Education Standards and Quality Assurance (Public Organization) also require the assessment of the published or disseminated research outcomes of doctoral degree graduates because it is an important factor to indicate the quality of doctoral degree graduates in demonstrating leadership of thoughts, ability in critical thinking, presentation skills, research skills, and other skills and intelligence of becoming an academican and advanced professional (Office for National Education Standards and Quality Assurance, 2011).

The Graduate Studies Programs in the field of Humanities and Social Sciences at Burapha University consist of Faculty of Humanities and Social Sciences, Faculty of Political Science and Law, Faculty of Fine and Applied Arts, Faculty of Education,

Graduate School of Public Administration, Graduate School of Commerce, and College of Research Methodology and Cognitive Science. All these faculties provide doctoral courses, especially the full research doctorate – the PhD. The dissertation-writing phase of doctoral programs is expected to demonstrate students' ability to conduct independent research in their fields of study (Joerg, 2004). Doctoral degree is considered the primary tool for training candidates in the area of scientific methodology and focusing on the utilization of scientific methods and the writing of dissertation as the processes.

Golde and Walker (2006) found that the time-to-completion of the degree is longer in Humanities and Social Science programs than it is in the Natural Sciences. The learning objectives for doctoral degree are not articulated, the nature of learning and the learning processes are mysterious. Confusion about what constitutes appropriate research at the doctoral degree, and the lack of benchmarks for doctoral outcomes, as well as standards for the dissertations and its assessments have been identified as problems within the academic programs (Holbrook et al., 2004; Tinkler and Jackson, 2004).

Quality research refers to the scientific process encompassing all aspects of study design regarding the match between the methods and questions, selection of subjects, measurement of outcomes, and protection against systematic bias, nonsystematic bias, and inferential error (Boaz and Ashby, 2003). Winston and Fields (2003) identified that the essential keys for successful completion of conducting dissertation include identifying a researchable question or problem that might be investigated by using the deductive or inductive approach, knowing about possible theoretically based answers to the research question, designing an appropriate qualitative, quantitative, or mixed study to examine the relationship of the concept to the research questions, selecting appropriate data collecting and analyzing methods, synthesizing and extrapolating the findings to the fullest extent.

Obvious flaws in research include the selection of egregiously too small sample cannot draw reasonable conclusion, the incomplete generalization

of findings, the use of inappropriate statistics, and the use of clearly inappropriate research design (Adams and White, 1994). In some way, length of dissertation can be one of the indicators of research's quality. A well-defined dissertation can be done well even under 150 pages and the highest number of pages is around 250 pages (Adams and White, 1994). Moreover, the number of research objectives is an indicator of research's quality. Zikmund and Babin (2007) recommended that the researchers should emphasize on one or small numbers of research objectives as it enhances the researcher to identify the most appropriate techniques for conducting research. Nowadays, there are numbers of scholarly papers that implement both quantitative and qualitative research methods as called "mixed methods". Creswell and Plano (2007) have devised a framework for judging the current level of acceptance of mixed methods research design within disciplines and across cultures, the one of the minimal acceptance to examine students' thesis is graduate students must employ mixed methods in dissertation research.

Nevertheless, the problems faced by doctoral students are always related to their lack of research skills including the selection of appropriate research methods and the unfamiliarity with the requirements of academic writing (Bauer, 1997). Therefore, if students know the university's criteria used to measure the quality of dissertations, they can use it as guidelines in both applying appropriate research methods and writing quality research which meet the university standards. Then, the purposes of this study were aimed to investigate on the research methodology of the doctoral dissertations of Burapha graduates in the field of Humanities and Social Sciences of Burapha University from year 2002 -2010 by examining sampling design, sample size, research instruments, and statistical devices used to analyze data. The benefits of the study may contribute to the improvement of students' knowledge about standards of Burapha University's doctoral dissertations, and finally the better quality of students' dissertation of Burapha University.

METHODOLOGY

The methodology employed in the study involved the synthesis of secondary data sets from methodological scans of doctoral dissertations in the field of Humanities and Social Sciences of Burapha University from year 2002 -2010. There were 60 dissertations available for this study from seven faculties consisting of Faculty of Humanities and Social Sciences, Faculty of Political Science and Law, Faculty of Fine and Applied Arts, Faculty of Education, Graduate School of Public Administration, Graduate School of Commerce, and College of Research Methodology and Cognitive Science. This research compared the nature of dissertations regarding sampling design, sample size, research instruments, and statistical devices to analyze data. The study used content analysis to quantify the data by providing descriptive frequencies.

RESULTS

The results in Table 1 indicate that the number of doctoral dissertations in the field of Humanities and Social Sciences of Burapha University, during 2002 – 2010, increased 10% during 2002 – 2004, 35 % during 2005 – 2007, and 55 % during 2008 – 2010. The number of male and female graduates carried out the dissertations were almost the same.

Concerning the overall number of pages, 51.67 % of the dissertations contained 200 – 300 pages, with the average number at 268 pages and the standard deviation of the number of pages was 86.39.

Once the research objectives were analyzed, most of the dissertations provided two objectives were 58.33 %. Concerning the research methodologies, most of the dissertations, or 75.00 %, used quantitative methodologies, and followed by qualitative methodologies at the rate of 18.33 %. Only 6.67 % was found using mixed methods combining both quantitative and qualitative approaches.

Table 1. Percentage of dissertations classified by the structure of dissertations.

Year of graduation	Amount (%)	Gender of researchers	Amount (%)
Year 2002 – 2004	10.00	Male	46.67
Year 2005 – 2007	35.00	Female	53.33
Year 2008 – 2010	55.00	Number of research objectives	
		1 Item	38.33
		2 Items	58.33
		3 Items	3.33
Number of overall pages (page)		Number of pages (excluding annexes)	
100 – 200	16.67	Less than 100	1.67
201 – 300	51.67	101 – 200	61.67
301 – 400	23.33	201 – 300	31.67
More than 400	8.33	More than 300	5.00
Mean = 268.10 SD. = 86.39		Mean = 193.63 SD. = 57.48	
Research methodologies			
Qualitative	18.33		
Quantitative	75.00		
Mixed methods	6.67		

The results in Table 2 show the doctoral dissertations in the field of Humanities and Social Sciences, carried out during 2002 – 2010, which employed various principal theories, e.g., teaching theories at the rate of 20.00 %; organizational theories and theories of efficiency/effectiveness of educational administration were in equal number, i.e., at the rate of 18.33 %. Cognitive science theories and behavioral theories were at the rate of 13.33 % and 10.00 %, respectively.

According to the aspect of defining research hypotheses, the numbers of dissertations that stating and not stating the research hypotheses were almost the same. Those that did not state the research hypotheses were found at the rate of 51.67 %. Twenty-nine out of sixty items were found having stated the research hypotheses; however, 30.00 % of them stated the hypotheses without direction, 11.67 % with direction, and 6.67 % with and without direction.

Both non-probability and probability sampling

methods were found in the sampling design of these doctoral dissertations. As for all of those using non-probability sampling, or 38.33 %, used the purposive sampling method; while most of the 29 items, or 25.00 %, of the dissertations using probability sampling were found using multi-stage sampling method. Large sample sizes (from 200 units upward) were mostly used and 35.00 % were found using the size of 400 - 999 units. Most of the dissertations, or 35.00 %, used only a questionnaire as a research instrument, and 16.67 % used a questionnaire and an interview form, which was rated as the first three most frequently used research instruments. Concerning statistical devices, each dissertation (from 60 dissertations using statistical devices for 153 times) was found using two parts of statistical devices: descriptive statistics and inferential statistics. Descriptive statistics were used at the rate of 34.64 %, and content analysis method was used at the rate of 18.95 %.

Table 2. Percentage of dissertations classified by the structure of dissertations

Category of principal theories	Amount (%)	Defining research hypotheses	Amount (%)
- Cognitive	13.33	Not stating	51.67
- Teaching	20.00	Stating with direction	11.67
- Behavior	10.00	Stating without direction	30.00
- Organizational theory	18.33	Stating with and without direction	6.67
- Efficiency/effectiveness of administration	18.33		
- Non-formal education	8.33		
- Personnel administration	8.33		
- Local administration/participation/ public policy	3.33		
Sampling methods		Sample size	
Collect data from population	1.67	Less than 30 units	18.33
Sampling by purposive	38.33	30 – 99 units	11.67
Sampling by simple random	8.33	100 – 199 units	10.00
Sampling by systematic	1.67	200 – 299 units	11.67
Sampling by group sampling	1.67	300 – 399 units	5.00
Sampling by stratified	10.00	400 – 999 units	35.00
Sampling by multi-stage	25.00	From 1,000 units upward	8.33
Sampling by unidentified	13.33		
Research instruments			
Questionnaire	35.00		
Test paper	5.00		
Interview form	5.00		
Observation form	1.67		
Questionnaire and test paper	6.67		
Questionnaire and interview form	16.67		
Questionnaire and evaluation form	10.00		
Test paper and evaluation form	1.67		
Interview form and observation form	6.67		
Questionnaire, interview form, and observation	3.33		
Questionnaire, interview form, and inventory	1.67		
Questionnaire, test paper, and inventory	1.67		
Questionnaire, test paper, and evaluation form	1.67		
Questionnaire, test paper, interview form, and evaluation form	3.33		

Table 3. Percentage of dissertations classified by the statistical devices.

Statistical devices (some dissertations used more than 1 device)	Amount (%)
Content analysis	18.95
Descriptive statistics	34.64
Univariate statistics methods	
- Independent samples t-test	2.61
- Dependent samples t-test	2.61
- Pearson's correlation coefficient	1.31
- One-way analysis of variance (1-way ANOVA)	1.96
Multivariate statistics methods	
- Mutivariate analysis of variance (MANOVA)	3.27
- Exploratory factor analysis (EFA)	5.23
Advanced statistics methods	
- Confirmatory factor analysis (CFA)	9.80
- LISREL/SEM	18.30
- HLM	1.31

Referring to inferential statistics, some dissertations were used more than one method. By means of inferential statistics, univariate statistics methods were used at the rate of 18.31 %, through dependent samples t-test, Pearson's correlation coefficient, and one-way analysis of variance: ANOVA. Mutivariate statistics methods were used at the rate of 18.31 % of inferential statistics, comprising exploratory factor analysis (EFA) 8 items, and mutivariate analysis of variance (MONOVA) 5 items.

Advanced statistics methods were used in most of the dissertations in the field of Humanities and Social Sciences of Burapha University, conducted during 2002 – 2010, at the rate of 63.38 % of those using inferential statistics. LISREL/SEM was used in the highest number, or at the rate of 18.30 %, followed by confirmatory factor analysis (CFA) at the rate of 9.80 %, and HLM at the rate of 1.31 % respectively, as shown in Table 3.

Table 4. Results of the analyses of the relationship between research methodologies and the structure of dissertations in the field of Humanities and Social Sciences of Burapha University during 2002 - 2010.

Dissertation structure	Research methodologies		
	Qualitative	Quantitative	Mixed methods
Year of graduation	(11 items)	(45 items)	(4 items)
Year 2002 – 2004	3	2	1
Year 2005 – 2007	4	17	-
Year 2008 - 2010	4	26	3
Sampling design	(11 items)	(45 items)	(4 items)
Non-probability	10	17	1
Probability	1	28	3
Sample size	(11 items)	(45 items)	(4 items)
Less than 100 units	9	7	2
101– 399 units	1	14	1
From 400 upward	1	24	1
Statistical devices (some use more than 1 device)	(18 items)	(84 items)	(6 items)
Content analysis	10	17	2
Descriptive statistics	8	43	2
Univariate statistics methods	-	10	1
Multivariate statistics methods	-	13	-
Advanced statistics methods	-	18	1

The results of the analyses of the relationships between research methodologies and the year of graduation, sampling design, sample size, as well as statistical devices, are shown in Table 2. The tendency of dissertations conducted in the field of Humanities and Social Sciences of Burapha University was increased in using the mixed methods, with the proportion of 3/4 (75.00 %). In addition, quantitative research methodologies also were increased in higher proportion at 26/45 (57.78 %). While the proportions of qualitative research methodologies were almost the same, the comparison between the mentioned period and the past periods were at 3/11, 4/11, and 4/11 (27.27, 36.36. and 36.36 %), respectively.

Concerning sampling design, it indicated that most of qualitative research papers used non-probability sampling, while most quantitative research papers used probability sampling with equal proportion of 28/45 (62.22 %).

The sample sizes of most qualitative researches were less than 100 units, while quantitative researches were comparatively large with 400 units upward. The mixed method researches used various sample sizes, with the use of a small size (less than 100 units) in equal number of the addition of a medium size (101 – 399 units) to a large size (from 400 units upward).

With reference to statistical devices used in the dissertations, the content analysis method was used in equal number to descriptive statistics in qualitative research. Apart from descriptive statistics, advanced statistics methods were used in 18 items of quantitative researches, followed by content analysis, multivariate statistics methods, and univariate statistics methods, respectively (Table 4).

DISCUSSION

The results from my study revealed that the numbers of dissertations conducted by male and female graduates were almost equal. The average number of pages for the whole copy of dissertations was 268 pages, with the standard deviation at 86.39 pages. If excluding annexes and the initial parts, the average number of pages was 194 pages, with the standard deviation at 57.48 pages. The numbers

of pages for doctoral dissertation matched with the standard writing mentioned in the BUU Doctoral Dissertation Writing Handbook, which indicate that it shall not normally exceed 80,000 words, excluding annexes (Graduate School Burapha University, 2007, p.2). Although some topics and research designs may not require length, it is unlikely that a significant piece of research could be written for less than 200 pages or over 250; however, a few dissertations were written below 100 pages (Adams and White, 1994).

Most of the dissertations consist of two research objectives. Normally the institution may advise students on the preferred number of objectives or research questions. The research objectives can be one objective (Zikmund and Babin, 2007) or more than one but fewer than six are acceptable (Quinton and Smallbone, 2006). The nature of the objectives should reflect the type of contribution made by the research.

Most of the doctoral dissertations used quantitative research methodologies, followed by qualitative research methodologies, and the mixed methods sequentially. Students mostly used the questionnaires. They distributed their questionnaires through the Internet and by post or even collected them in person. Regarding to the distribution of questionnaire, Babbie (2007, p. 262) stated that the return rate of the questionnaire of at least 60 percent is considered good, and of at least 70 percent is excellent. Quantitative research designs are characterized by the assumption that human behavior can be determined by social facts which can be investigated by research methodologies that utilize the deductive logic of the Natural Sciences (Horna, 1994). The strengths of quantitative methodologies are the availability of the observer to compare the results with other research scholars, replicate the study, be more independent in the subject being observed, and emphasize the need to formulate hypothesis for subsequence verification (Easterby-Smith, 1991). However, quantitative research has weaknesses regarding its appropriateness in explaining in-depth information which is limited and quantitative approaches are based on their tendencies to take a

snapshot of a situation, that are used to measure variables at a specific moment of time (Amarutunga et al., 2002). Due to the weaknesses of quantitative research, qualitative research can help researchers in some aspects because qualitative method emphasizes on people's life experience which are the fundamental well suited for studying the meanings people's thought on the events, processes and structures of their lives. Nevertheless, Richards and Richards (1994) maintained that the constraints of qualitative research as the limited volume of data, the complexity of analysis, the details of classification record, and the flexibility and the momentum of analysis. From the limitations of both quantitative and qualitative research, the mixed methods research has become the most popular term (Johnson et al., 2007). Students employ both methods of investigation. Students initially collect and analyze quantitative data, then build on those findings in a qualitative follow up, when they seek to provide a better understanding of the quantitative results. Or students collect both quantitative and qualitative data either sequentially or concurrently with one form of data playing a supporting role, or both forms of data playing a supporting role in a larger design (Harrison and Reilly, 2011).

The sampling design in the dissertation comprises both probability sampling and non-probability sampling in nearly equal number, while employing purposive sampling method and multi-stage sampling method were most frequently used method in each sampling design. A large sample size (from 400 units) is mostly used and with a questionnaire as a research instrument. Neuman (1991, p.221) described that the size of the sample depends on the size of the population. If the size of the population is large, the sample ratio should be smaller than that of a small-size population. If the researchers have a variety of population and want to study many variables, they should extend the sample size as it should be.

With reference to statistical devices, the content analysis method, descriptive statistics and inferential statistics were used in the dissertations. As for inferential statistics, advanced statistics methods were mostly

used through univariate statistics methods and multivariate statistics methods equally. This result is in line with the fifteen-year long-term higher education framework, which aimed at enhancing the quality of Thai higher education, producing and developing high quality personnel, developing the potentiality of higher education to increase the competitive edges of the country, providing opportunities for students to practice research procedures, to study, to search and collect information, and to present the results in a research article published in a national or international journal at a later stage (The office of the Higher Education Commission, 2007, p. 3). In addition, an observation of the Office of the Secretary-General to the National Education Council, Ministry of Education also pointed out that the use of advanced statistics, such as factor analysis, path analysis, HLM, and LISREL will lead to the fairly high and high quality research. However, there are very few research works using advanced statistics methods (The Office of the Secretary-General to the National Education Council, Ministry of Education, 2009, p.339). Furthermore, the Office of the Higher Education Commission also states that the development of research using advanced statistics methods to analyze the data should be encouraged. Another point of concern is that it is a requirement for those completing education at a doctoral degree level at Burapha University to have their research outcomes published in an international journal (The Office of the Higher Education Commission, 2010). To meet this target, at least one of research objectives has to be answered by using simple statistics methods, and then advanced statistics methods are used to find the answers for other objectives.

CONCLUSION

For the doctoral dissertation in the field of Humanities and Social Sciences of Burapha University during 2002 – 2010, the average number of pages for the whole copy of dissertation is 268 pages. The research objectives ranged from one to three objectives. Doctoral dissertations apply more on quantitative research and then qualitative research, as well as mixed methods. Most of the statistics

are content analysis, descriptive statistics and with the highest number of advanced statistics.

RECOMMENDATIONS

In 2011, Burapha University was ranked as one of the first 190 universities having the best quality in the Asian Region, and as the 8th best university of Thailand from QS Asian Universities ranking by Quacquarell Symonds Limited (2011).

From the results of this research, we can obtain basic information that will be beneficial to Burapha University to enhance the research potential of the students. In the future, Burapha University may become one of the ten national research-oriented universities of Thailand. According to the selection criteria required by the Office of the Higher Education Commission (2010, p.54), it is stated that any national research-oriented university must have been enlisted not lower than the 500th order ranking of the world universities in the THE-QS.

Concerning the practical recommendations, the findings of this research are a guideline for the dissertation advisors or the students studying in the field of Humanities and Social Sciences at Burapha University or at other universities, or at least as a reference with the Thai universities being ranked next down to Burapha University in quality ranking.

According to policy recommendations, the findings of this research can provide useful information for the Deans of the Faculties in the field of Humanities and Social Sciences to be used as the foundation of development for doctoral programs, which can be extended for better development in the aspects of quantitative research, qualitative research, and mixed methods research. Also, statistical devices and other aspects should be obtained not less than the average score or what have mostly been done as found in this research.

LIMITATIONS

An obstacle occurring in the search of research works is that the name of the owner's of some doctoral dissertations does not appear in the database. With an attempt for a deeper investigation and

contact, it is found out that the researcher's telephone number and e-mail are not stated in his/her biodata. Moreover, some of them have changed their address and workplace; while the others have been retired.

ACKNOWLEDGEMENTS

The author is gratefully acknowledged Associate Professor Issara Suwannabol, Asst. Prof. Apinya Ingard and Dr. Sarunya Lertputtarak for advice. This study was supported by a grant from the Graduate School of Commerce, Burapha University, Thailand.

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