Students, Faculty Members, Experts' Reflections towards Program: a CIPP Evaluation Model of Doctor of Philosophy in Teaching and Technology Program

ผลสะท้อนจากนักศึกษา อาจารย์และผู้เชี่ยวชาญที่มีต่อหลักสูตรปรัชญาดุษฎีบัณฑิต สาขาการสอนและเทคโนโลยี โดยใช้รูปแบบการประเมินซิปป์

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Abstract

The objective of the research was to evaluate the Doctor of Philosophy in Teaching and Technology Program by applying the CIPP model included 4 components; the contexts; objectives, structure, and contents, the inputs; the student admission and student preparation, learning facilities and support, the process; the teaching and learning process, assessment and evaluation, and dissertation advisory, student development and the outputs; student characteristics and competencies, the quantitative research by using the survey method and qualitative research by using the interview method. The samples were 16 students, 5 faculty members, and 5 experts. The research instruments were constructed; questionnaires with five Likert Scale and a structured interview form for the interview. The findings revealed that the reflections from participants towards the program was at the most appropriate level ($\bar{X}$=4.27, S.D.=0.40). The similarities and the differences of reflections towards the program were noted and taken into considerations for further improvement and development.

Keywords: CIPP Model / Program Evaluation

บทคัดย่อ

การศึกษาวิจัยมีวัตถุประสงค์เพื่อประเมินหลักสูตรปรัชญาดุษฎีบัณฑิต สาขาการสอนและเทคโนโลยี ฉบับพุทธศักราช 2555 ใน 4 ด้าน ได้แก่ ด้านบริบท ปัจจัยนำเข้า ปัจจัยกระบวนการ และปัจจัยผลผลิต โดยใช้รูปแบบการประเมินซิปป์ ปัจจัยด้านบริบทประกอบด้วยวัตถุประสงค์หลักสูตร โครงสร้างหลักสูตร และเนื้อหา ปัจจัยนำเข้าได้แก่ กระบวนการรับและประเมินนักศึกษาแรกเข้า การเตรียมนักศึกษาก่อนเข้าเรียนในหลักสูตร และการสนับสนุนและสิ่งอำนวยความสะดวกในการเรียนรู้ ปัจจัยกระบวนการได้แก่ กระบวนการเรียนการสอน การวัดและประเมินผล และระบบการให้คำปรึกษาดุษฎีนิพนธ์ และการพัฒนานักศึกษา ปัจจัยด้านผลผลิตได้แก่คุณลักษณะและสมรรถนะนักศึกษา การวิจัยครั้งนี้เป็นการวิจัยเชิงปริมาณ โดยการสำรวจผลสะท้อนจากนักศึกษา อาจารย์ประจำหลักสูตรและผู้เชี่ยวชาญที่เกี่ยวข้องกับสาขา และการวิจัยเชิงคุณภาพโดยการสัมภาษณ์นักศึกษา มีกลุ่มตัวอย่างเป็นนักศึกษาระดับปริญญาอกที่กำลังศึกษาในปัจจุบัน จำนวน 16 คน

อาจารย์ประจำหลักสูตร จำนวน 5 คน และผู้เชียวชาญที่เกี่ยวข้องกับสาขาจำนวน 5 คน เครื่องมือที่ใช้ในการวิจัยได้แก่แบบสอบถามมาตรวัดประมาณค่า 5 ระดับ 2 ชุด สำหรับนักศึกษาและ อาจารย์ประจำหลักสูตร และผู้เชี่ยวชาญ และ แบบสัมภาษณ์มีโครงสร้าง 1 ชุดสำหรับนักศึกษา ผู้วิจัยวิเคราะห์ข้อมูลโดยใช้สถิติพื้นฐานได้แก่ ร้อยละ ค่าเฉลี่ย ค่าเบี่ยงเบนมาตรฐาน และการวิเคราะห์เนื้อหาจากการสัมภาษณ์ ผลการวิจัยในภาพรวมพบว่า การประเมินปัจจัยในทุกด้านมีผลการประเมินเฉลี่ยอยู่ในระดับเหมะสมมากที่สุด ($\bar{X}$=4.27, S.D.=0.40) เมื่อพิจารณาผลสะท้อนเป็นรายด้าน พบว่าผลการประเมินเฉลี่ยมีทั้งลักษณะเหมือนกันและแตกต่างกัน ทั้งนี้ผู้วิจัยจะได้นำผลการวิจัยในครั้งนี้ไปประกอบการพิจารณาเพื่อการปรับปรุงหลักสูตรต่อไป

คำสำคัญ: การประเมินแบบซิปป์ / การประเมินหลักสูตร

Introduction

Nowadays, there are varieties of program and curriculum to be offered for professional development. To provide a unique quality program and curriculum, facilitate and support the quality of teaching and learning process towards the program administration is required for the quality education nationwide. The program and curriculum must be developed and monitored in accordance with the National Development Plan, Thai Educational Act 2542 (B.E.), and the Thai Qualifications Framework for Higher Education; TQF:HEd).Therefore; to maintain and continue the improvement for quality program and curriculum is essential to assess, evaluate the curriculum and program regularly, not only for program and curriculum accreditation by the OHEC (The Office of Higher Education Commission), Ministry of Education, Thailand, but also for development and improvement of the program extensively . The Doctor of Philosophy in Teaching and Technology Program, Graduate School of elearning, Assumption University of Thailand has been the first offered in 2012. During curriculum implementation, the program has conducted both formative and summative assessment and evaluation in semester and annually basis for improvement includes the internal and external quality assessment and the accountability. For the quality, improvement, development, and maintain quality and updated of the program and curriculum, in order to wider perspective of the quality of the program, students, faculty members and experts in related field were requested for the program evaluation.

Research Objective

To evaluate the curriculum of Doctor of Philosophy in Teaching and Technology Program includes the contexts, inputs, process, and products component.

Research Scope

The study was focused on students, faculty members, and experts of Doctor of Philosophy in Teaching and Technology Program, Graduate School of elearning, Assumption University of Thailand in academic year 2015.

Literature Review

Program Evaluation: CIPP Model

The CIPP evaluation model was developed in the late 1960s as one alternative to the view about evaluations that were most prevalent at that time, these oriented to the objectives, testing, and experimental design. Later, the CIPP model was conceptualized as a result of attempts to evaluate projects that had been funded through the Elementary and Secondary

Education Act of 1965 (ESEA) for the purpose of improving the education advantages and more generally for upgrading the total system of elementary and secondary education. The CIPP approach is based on the view that most important purpose of evaluation is not to prove, but to improve (Stufflebeam, 2007).

The CIPP evaluation model is a tool for applying to assess long term enterprises. It is a comprehensive framework for guiding evaluations of program, projects, personnel, product, institutions, and systems (Stufflebeam, 2007). There were some programs at Master degree level and Doctoral degree level at public university in Thailand which utilized the CIPP model for the program evaluation (Hoksuwan et.all, 2007, Dasa et.all, 2010, Nilpong, 2011, Treenapa, 2011). The aim of the CIPP model which attached importance to process evaluation is to look into strategies and evaluate the design functioning properly. (Hakan, 2009).

Nilpong (2011) conducted the study with 565 of experts, administrators, teachers and students for the curriculum evaluation of Mahidol Wittayanusorn School B.E. 2552 by applying the CIPP evaluation model as 5 components; contexts, inputs, process, effectiveness, and affection. The research instruments were curriculum evaluation form, questionnaire, interview form, and checklist and the data were analyzed and presented by frequency, percentage, and standard deviation. The results indicated that the administrators, teachers, experts and students evaluated, most of the components were evaluated at high level. Another similar study that applied the CIPP model, conducted by Dasa, et al. (2010) on the topic of an evaluation and follow-up of Master of Education in Science Education (Plan B) Program, Srinakharinwirot University. The study included the components of contexts (objectives, structure, contents), inputs (students, instructional medias, places for learning), process (learning instruction, assessment), products (knowledge and skills of graduated students, i.e. content knowledge, teaching and research skills, leaderships, self and social development, and attitude, ethics, and moral). The participants were alumni, students, and teachers, collecting data by using a questionnaire and interview. The results indicated that the participants evaluated all components at the high and highest, curriculum was appropriated in all areas, for the inputs, most of the students did not have background in Science. Nilpan (2011), conducted a study to the curriculum evaluation on Doctor of Philosophy Program in Curriculum and instruction, faculty of Education, Silapakorn University. The researcher applied the CIPPIEST model, which is an extended of CIPP evaluation model includes impact, effectiveness, sustainable, and transportation. The researcher studied 6 components included the contexts, input, process, outputs, effectiveness, sustainable, and transportability. The data were collected by questionnaire and interview the 6 groups of the involved people with 2 executives, 9 conducting committee members, 18 instructors, 23 employers, 103 students, and 39 graduated students. The results indicated that the graduates, students, instructors, committee, executives showed their opinions appropriate at high level and the interesting findings was that about the impact aspect were problems on lacking of budget support and the place for presenting international academic works.

In this study, the reflections of students, faculty members, and the experts in related field towards the program evaluation of Doctor of Philosophy in Teaching and Technology Program, Graduate School of elearning, Assumption University of Thailand in academic year 2015 were investigated by applying the CIPP model. The existed components of the program evaluation; the contexts included objectives, structure, and contents, the inputs included the student admission evaluation and student preparation, facilities and learning support, the process included the teaching and learning process, assessment and evaluation, and the dissertation advisory , student activities and the outputs included the student characteristics and competencies. Those components were reflected by CIPP evaluation model. The CIPP evaluation model is a tool for applying to assess long term enterprises. It is a comprehensive

framework for guiding evaluations of program, projects, personnel, product, institutions, and systems (Stufflebeam, 2007; Fitzpatrick, 2012), therefore; The researcher agreed to apply the CIPP model for the program evaluation since, the CIPP Model has some similar components and it is relevant to the quality indicators of the Office of Higher Education Commission (OHEC), Ministry of Education, and Thailand to assess and evaluate the program for the internal quality assurance.

Research Methodology

Research Design

Quantitative and qualitative research design was utilized to this study. For quantitative research design, a survey method was used with two sets of research instruments; questionnaires with 5 Likert Scale and a structured interview form for qualitative research design.

Population

The population were 16 of doctoral students who enrolled the courses of the Doctor of Philosophy in Teaching and Technology Program, 5 faculty members who were involved in program administration, teaching, and advising student, and dissertation of Doctor of Philosophy in Teaching and Technology Program, Graduate School of eLearning, Assumption University of Thailand, and 5 experts in the area of expertise in curriculum instruction, instructional technology, and engineering and technology.

Sample

The purposive sampling method was utilized for the study. The samples were doctoral students, faculty members, and experts in related field. The details are as follow:

1. Students: The doctoral students who were enrolled the course of the Doctor of Philosophy in Teaching and Technology Program was divided 16 of current students into 2 groups as follow:

1.1 The first group of doctoral students was 8 students who had completed enrolled of course work s, enrolled dissertation course and working on their dissertations.

1.2 The second group of doctoral students was 8 students who were uncompleted course works and currently enrolled the coursework of the Doctor of Philosophy in Teaching and Technology Program.

2. The faculty members: The faculty members who involved in program administration, teaching, and advising student dissertation of Doctor of Philosophy in Teaching and Technology Program, Graduate School of eLearning, Assumption University of Thailand. There were 5 fulltime faculty members.

3. The experts: The experts in related field who had experiences and area of expertise in the related field; 2 experts in the area of curriculum instruction, 2 experts in the area of instructional technology, and 1 expert in the area of education and technology.

Research Instruments

There were two sets of questionnaires; one set for students and another for faculty members, and experts, constructed by the researcher based on the CIPP Model; included objectives, structure, and contents, the inputs included the student admission evaluation and student preparation, facilities and learning support, the process included the teaching and learning process, assessment and evaluation, and the dissertation advisory, student activities and the outputs included the student characteristics and competencies. A structured interview form was constructed for interviewing the doctoral students. They were developed to measure the doctoral students, faculty members, and experts' reflections towards the program

administration and curriculum. The content validity of the instruments was checked by the program committee. The reliability of the instruments was computed by the cronbacth's alpha coefficient 0.863 and 0.824.

Data Collection

The questionnaires for students, faculty members, and experts were distributed with the instruction for self administered questionnaires and collected by the researcher. The structured interview form was noted and recorded for the interview.

Data Analysis

The quantitative data was analyzed by the descriptive statistic; percentage, means and standard deviation. The qualitative data from the interview was analyzed by the content analysis.

Findings

The overall findings revealed that faculty members reflections towards the program administration and the curriculum of Doctor of Philosophy in Teaching and Technology Program was at the most appropriate level ($\bar{X}$=4.92 S.D.=0.40), the experts reflections was at very appropriate ($\bar{X}$= 3.87, S.D. =0.38) and the current students towards the program was at the most appropriate ($\bar{X}$=4.02, S.D.=0.43) and the inputs component in terms of student preparation, showed that the students with non thesis at master degree level or without background or experiences in conducting research faced with difficulties of conducing their dissertation and the students proposed some additional recommendation for initiating a basic research course for student preparation course for non thesis student at master degree level or non experience in conducting research.

Conclusions and Discussion

It is possible to conclude that different reflections from students, faculty members, and experts towards the program evaluation conveyed the similarity and the difference view of the components; the contexts, inputs, process, and products and the CIPP model is a popular and comprehensive model to evaluate the program and curriculum extensively and be able to measure those components comprehensively (Fitzpatrick, 2012).

Considering each components of program evaluation; the process component ($\bar{X}$=4.39, S.D.=0.30) is the first and the most appropriate level for students and faculty members ($\bar{X}$=4.45, S.D. 0.38). It was found that the outputs was at the appropriate level ($\bar{X}$=3.43, S.D. 0.38) for students and faculty members reflections. That's mean both students and faculty members reflections, agreed and believed that the program administration, teaching learning process, the learning activities, and the measurement and evaluation are effective process. However; certain characteristic such as ethical and moral development characteristic was needed for further student development.

The evaluation of inputs component of the students and faculty members, and experts confirmed and agreed to the results indicated that in terms of student preparation is needed for students with non thesis at Master degree level or non experience in conducting research. The result was relevant to the study of Dasa, et al. (2011) that the inputs evaluation showed most of the students did not have background in Science which is their field of the study was Science Education. Moreover; both students and faculty members' reflections towards the products component which were about the student characteristic and competencies, the

results implied that most of students are employed before studying in the program and had less opportunity for the program to shape them for the moral and ethical characteristics.

Suggestions

Suggestions for future research

The research was conducted to assess and evaluate the program and curriculum of the Doctor of Philosophy in Teaching and Technology Program in difference reflections of students, faculty members, and experts, there was some points of view for further study as suggested as follow;

A qualitative study by using the in-dept interview and focus group should be conducted for students and faculty members, and experts' reflections.

A study of student reflections comparing between the expected performance and the actual performance towards the curriculum and program administration should be conducted for students.

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