

# **Research Skills of the Professorial Lecturers: Input to Capability Building**

**DAVID CABABARO BUENO**

<http://orcid.org/0000-0003-0072-0326>

doccave3090@gmail.com

Columban College, Inc.

Olongapo City, Philippines

## **ABSTRACT**

To achieve an effective graduate educational reform, faculty development emerged as a key factor. It facilitates the professional and instructional growth of lecturers and promotes improvement in the institution through helping them become contributors to the school's mission. The study was designed to determine the research skills of graduate professors based on the Expected Performance Standards (EPS) set by one private Higher Education Institution (HEI) as input to training and development. The descriptive-cross-sectional design and descriptive statistical analysis were used. The teaching outcomes were based on the average performance from the three assessments conducted by the Dean among the professors during the academic year 2014-2015. The results exposed that the faculty were outstanding in achieving the objectives of the graduate program by showing mastery of subject matter, relating current issues and community needs, and participating the activities of professional organizations. However, they were just satisfactory in demonstrating mastery of research skills in relation to research output, assisting graduate students in developing research competencies, and showing professional growth through research activities and publications. These are essential inputs to training and development program to continually upgrade the professorial lecturers' research preparation, dissemination and utilization.

**Keywords** – Graduate education, research skills, professors, training and development, descriptive-cross-sectional design, Olongapo City, Philippines

## INTRODUCTION

Innovation in the actual practice of instruction which can be accomplished through professional development by means of continuing education and in-service training is intended to promote the human resource development, leadership and teaching-learning process (Fakhra & Mahar, 2014). Furthermore, Herzallah (2011) mentioned that teachers professional development activities include practicing teaching as a core activity, reflecting on own and others' teaching practices, doing action researches, attending lectures and workshops, participating in professional conferences and developing communication skills. However varied, all professional development activities seek to achieve one wants that is to help teachers be more competent. At present, many education programs offer multiple opportunities for pre-service teachers to learn and practice pedagogical skills, but institutions of higher learning in the United States tend to underemphasize the instructional training of university teachers and professors. Thus, there are inconsistencies in the implementation of such activities because of the absence of unified mandates for teachers' preparation among institutions of higher education. This observation was supported by scholars such as Morris and Usher (2011) when they provided suggestions for professional training and development in higher education, but implementation of such initiatives has been inconsistent. To an extent, this oversight reflects the additional role of the teachers as researchers for promotion purposes and that their feeling about instructional role is being unappreciated.

There is a strong point now to assess the existing related research training activities in a private higher education institution. Lee, El-Ibiary and Hudmon (2010), characterized the research training and productivity of faculty in relation to their ability to meet research demands, confidence and resources, and interest in further training, and concluded that the faculty lacks adequate training and low self-confidence making their preparation and retention as faculty in the United States critical. Further, Fakhra and Mahar (2014) elaborated that indicators such as pedagogical, management and assessment of research competencies are considered indispensable for teachers' quality performance and to support faculty, authors (Milner, Gusic, & Thorndyke, 2011) argued that it is necessary to reflect the growth in skills, knowledge, and behaviors of teachers to become

expert in the field of research. Moreover, the authors provided general principles to guide the identification of a competency framework for faculty. Furthermore, analysis of foreign researchers' scientific approaches to the practice of application of key performance indicators (KPI) applied in Russian educational system today included citation index and number of publications as parameters of competitive growth in the scientific world (Luneva, 2015). In addition, Hamadneh (2015) revealed that the most important field of education is the technological skills, followed by research skills, and finally by teaching skills. The most prominent training need is research skills based on the quantitative and qualitative data using statistical programs, whereas "development of thinking skills and solving students' problems" were the most prominent training needs of teaching skills.

To meet the educational needs of the 21<sup>st</sup> century global organization, professors need continuing professional training and development to maintain and upgrade their skills. They also need to exemplify a willingness to explore and discover new technological capabilities that would enhance and expand learning experiences. Several studies have been conducted about professional development focusing on ICT skills (Akinagbe, 2011), pedagogical competencies, management and assessment competencies and research competencies among teachers and lecturers (Fakhra & Mahar, 2014). For Akinagbe, it is essential that lecturers should improve their ICT skills properly. They need a wide variety of educational opportunities to improve these ICT skills. Moreover, to address similar issue, Indonesian teachers have identified various problems such as to over-dependence on government funding, lack of training in research methods and writing ability and publication, and effective use of instructional methods, as well as low incentives for faculty to do research (Ramos-Mattoussi & Milligan, 2013). Additional strategies to promote and develop research skills are through international relations, global profile and international competitiveness. Such strategies can provide information, advice and guidance to colleagues within the school for international research engagement (University of Oxford International Strategy Office, 2015).

The previous studies generally focused on the competencies of teachers and lecturers in the basic education and tertiary levels. The competencies required for teaching in the K to 12 and tertiary programs might be at a varying degree when compared to those professors teaching in the graduate school programs. This observation was further supported by Hyatt & Williams (2011) when they emphasized that professors at the graduate and post-graduate levels are responsible for the mastery in the specific area of specialization including research and leadership skills.

Thus, professors' competencies may include knowledge and skills required for effective and quality education at higher education level. These include a set of teaching skills that a graduate level lecturer needs to possess, to become effective and these are pedagogical skills, management and assessment skills, and research skills, and these skills can be cultivated through continuous training and development program of the institution. Lastly, the program for graduate faculty should be designed around research-documented practices that enable them to develop the skills necessary to implement the expectations and performance standards at the graduate level. These practices will surely improve student performance in the graduate research and be applied to the improvement of faculty effectiveness. There is a need for now for school administrators to initialize continuous training and development activities solely for graduate school faculty. Thus, this study was designed to bridge the gap previously presented in conducting training needs analysis and its practical delivery intended for the development of research capability of graduate faculty extracted from the performance standards for professional performance, instructional procedures and techniques, and evaluation and grading.

## FRAMEWORK

With the aim to continue to increase the proportion of research assessed as being at world standard or better, but should aspire to exceed the standards set by Europe and North America. Murdoch University: 21st century vision will build on the well-established narrative for research as being translational in nature and significant in its impact. Both the quality and quantity of research effort will help with this, especially where impact can clearly be demonstrated. A critical element of its activity over recent years has been to identify areas of key research strength, emerging strength and research opportunity. The strategic concentration of research investment into the areas is coherent, consistent not only with the available data on research excellence but also national and regional research priorities (Autistica, 2014).

This study was firstly anchored on the Strategic Training and Development Model (STDm) that focuses on the design and implementation of training systems to successfully impact organizational performance (Neo, 2012). The model exhibits that the strategic process begins with identifying the strategy, followed by the strategic learning imperatives, which refer to the strategic training and development goals which support the strategy that have been identified and

the final step involves evaluating whether training has helped in contributing to the goals of the organization. Thus, all training interventions should be carefully planned, designed, and evaluated in support of organizational goals and objectives. Several authors suggest that most organizational intervention that has occurred have been strategic because they have emphasized knowledge management, continuous learning and development programs to help organizations increase their ability to detect change, adapt and anticipate trends (Kraiger & Ford 2011; Sessa & London, 2012).

In the context of a Private Higher Education Institutions (HEIs), before implementing any training program, the institution should assess the needs of the graduate professors. With respect to needs assessment, the emphasis is on aligning training design with the institutional vision and such design should follow intervention activities in support to knowledge and skills acquisition as well as transfer of learning. The goal of needs assessment from the strategic perspective is to link training initiatives with the overall goals of the school. This is vital in helping appraise if institution has resources and capable of providing training based on the assessment of teaching performance in relation to the expected performance standards set by the school in developing the skills of graduate students.

Thus, innovative and transformative school leaders and teachers need to collaboratively work together towards developing the 21<sup>st</sup> Century skills among stakeholders (Summary, 2014). However, teachers among HEIs are constrained to perform because they are required to do instruction, research and community service responsive to the mission of the school that could lower their compliance and productivity. Very few studies related to training and development have been conducted towards a stronger academic research culture and related issues inhibiting research productivity from the viewpoint of the teaching staff (Fairweather, 1999; Tierney, 1999; Layzell, 1999; Shanklin, 2001; Marie & Sherlyne, 2007). Thus, there is a need to develop their self-efficacy in research.

The present study secondly considered the Self-Efficacy Theory that focuses on research self-efficacy of the graduate professors. A person's belief in their efficacy could affect the kind of proactive situations they create and practice (Bandura, 1993). Bandura explained further that those who visualized successful scenarios have a high sense of efficacy. High sense of efficacy provided positive outlook and support to individual's performance. On the other hand, those who were hesitant on their efficacy think about failure scenarios and settle down on the things that they thought could go out of control. In other words, people chose to

do what they believe they are capable of. Otherwise, they will not attempt to do it (Alumbro & Sapan, 2015).

The demand of internationalization is of growing significance worldwide, with economic, political and social changes driving an increasingly global knowledge economy. Such internationalization initiative within universities continues to develop apace as institutions move from equating international strategy with research collaborations (University of Oxford International Strategy Office, 2015). Researchers (Stokking, van der Schaaf, Jaspers, & Erkens, 2004) have studied upper secondary education teachers' practices using two surveys and two rounds of expert panel's judgment on teacher-submitted assessment-related material and information. They emphasized a common concern on research skills regarding the clarity of teachers' assessment criteria, the consistency between teachers' goals, assignments, and criteria, and the validity and acceptability of teachers' assessment practices. Moreover, the Professional and Organizational Development Network in Higher Education (POD, 2003) emphasized that faculty development generally focused on the individual faculty member. It should provide consultation on teaching, including class organization, evaluation of students, in-class presentation skills, questioning and all aspects of design and presentation. They also advised faculty on other aspects of teacher/student interaction, such as advising, tutoring, discipline policies and administration, including research writing and publication grant. Thus, professional development should be designed properly to enable educators to develop the skills necessary to implement what they are learning. Furthermore, Mallari and Santiago (2013) concluded that faculty has limited research studies due to competence and interest towards research, especially those who are at apprentice level of competency. Research incentives were also very important to increase the interest of more researches to conduct studies. Incentives could include financial aid, deloading teaching units, and encouraging research presentations outside the Philippines. It was also assumed that one of the possible reasons of this low participation rate among faculty in conducting research could be the level of competence in doing research work and interest towards it. Hence, the study was conducted (Alumbro & Sapan, 2015).

## **OBJECTIVES OF THE STUDY**

The study was conducted to determine the training needs of graduate faculty based on the expected performance standards set the graduate school in relation

to professional performance, instructional procedures and techniques, and evaluation and grading. Moreover, it aimed to propose a specific training and development program to address the research skills of the faculty imbedded on the mentioned performance standards.

## METHODOLOGY

### Research Design

The researcher used the descriptive-cross-sectional design of research to obtain information concerning the analysis of the research training needs of the professorial lecturers. It is one of the common study designs to assess the research skills of the faculty using survey-questionnaire at a given academic year (Alexander, Lopes, Masterson & Yeatts, 2016). The cross-sectional design is an observational study. This means that researcher recorded information about the participants without manipulating the study environment. In this study, the researcher simply measured the research skills of the professorial lecturers along with the other characteristics such as professional performance, instructional procedures and techniques, and evaluation and grading. The researcher did not force the professors to modify their behavior towards research. In short, the researcher tried not to interfere while the professors were observed using a well-defined instrument. Thus, the advantage of the design was that the researcher can compare different participant groups and various variables at a single point in time (IWH, 2015).

### Participants

The respondents of the study were the faculty members of the graduate school in one private higher education institution in the Philippines with at least an average of three teaching loads from first to third trimester during the academic year 2014-2015. There were 16 faculty members subjected to the trimestral assessment and evaluation conducted by the Office of the Graduate School. All of them finished doctorate degrees in various specializations such as educational administration, business management, and public administration. The majority of them were in the graduate school teaching for more than 10 years now.

### Instrument

An instrument on the performance standards was patterned and tailored from the survey-questionnaire of the Philippine Association of Colleges and

Universities-Commission on Accreditation (PACUCOA) used during the preliminary visit to the various graduate programs of the College. The specific requirements on professional performance, instructional procedures and techniques, and evaluation and grading were used as the criteria. The same instrument was used for the purposes of determining the training needs of the faculty. To assess the performance standards for graduate faculty, there are 10 items under professional performance (endeavors to achieve the objectives of the graduate school and of the program); 10 items related to instructional procedures and techniques (provides a functional and well-planned syllabus which specifies the target competencies, research and class activities required for course); and seven items for evaluation and grading (uses valid techniques to evaluate student performance). The instrument used the 5 point Likert scale with the corresponding descriptive ratings and analysis for the possible areas for training and development program: (1) **Descriptive Rating (DR):** (5) 5.00-4.20= *Outstanding Competence (OC)*; (4) 4.19-3.40= *Very Satisfactory Competence (VSC)*; (3) 3.39-2.60= *Satisfactory Competence (SC)*; (2) 2.59-1.80= *Fair Competence (FC)*; (1) 1.79-1.00= *No Competence (NC)*; (2) **Analysis:** (5) 5.00-4.20= *Not Needed (NN)*; (4) 4.19-3.40= *Sometimes Needed (SN)*; (3) 3.39-2.60= *Needed (N)*; (2) 2.59-1.80= *Much Needed (MN)*; (1) 1.79-1.00= *Very Much Needed (VMN)*.

These criteria were subjected to face and construct validity by the previous administrators of the graduate school and graduate education experts and professors after taking into consideration the expected performance standards for graduate faculty by an external accrediting agency. The juries used the same descriptive ratings and analysis clearly indicated in the instrument. The result of the average computed mean of the juries was 4.62 interpreted as “Outstanding Competence”. After the validation of the instrument, reliability test was conducted to determine the consistency of the scores using the instrument measuring the same set of skills with similar type of study was established. In this study, the Test-Retest Method was used to examine the reliability of the questionnaire. The validated instrument underwent pilot testing to a select group of graduate faculty in one private university. After two weeks, the same questionnaire was administered to the same group. Pearson-Product Moment Correlation was used to correlate data gathered. The computed coefficient of correlation was 0.89 (Very High). The result was interpreted based on the following: 1.0 (Perfect); 0.81 - 0.99 (Very High); 0.61 - 0.80 (High); 0.41 - 0.60 (Moderate); 0.21 - 0.40 (Low); and 0.01 - 0.20 (Negligible correlation). Thus, the computed correlation value indicated that the instrument was reliable.



### **Data Gathering Procedure**

After subjecting the questionnaire to validity and reliability tests, a letter of request to the Office of the President endorsed by the Vice President for Academics and Students Services (VP-AASS) was properly secured in the conduct of survey and assessments of the graduate faculty. Data were gathered towards the end of every trimester (first to third trimester) during the academic year 2014-2015 among the graduate faculty. The Dean conducted face-to-face and personal assessment using the instrument. Each faculty was formally introduced to the purposes of the study and assured of the strict confidentiality of the data gathered. The data gathered were collated, treated and analyzed in accordance with the objective of the study. A spreadsheet software was used for a more efficient, effective and accurate treatment of data. The level of competence of the faculty relative to the specific indicators of the performance standards was the basis for the analysis towards training and development program. Thus, the gap between what is expected as to the level of competence and the trainings needed to improve such professional performance was determined.

## **RESULTS AND DISCUSSION**

Relative to professional performance standards, the findings show that the graduate faculty members were outstanding in achieving the objectives of the graduate school and of the program, preparing for his/her class, shows mastery of subject matter, relating current issues and community needs with the subject matter; and in participating in the activities of professional organizations. However, they were just satisfactory in demonstrating mastery of research skills as evidenced by their own research output, assisting graduate students in developing research competencies, showing professional growth through further studies, research activities and publications, and sharing their knowledge or expertise with other institutions, agencies and the community. In terms of instructional procedures and techniques as standards, the faculty members were outstanding in providing opportunities for independent study, utilizing instructional materials with depth and breadth expected for the graduate level, requiring students to make extensive use of print and non-print reference materials, using instructional procedures and techniques to encourage active students' interaction; using interdisciplinary and/or multidisciplinary approaches whenever possible; and enforcing definite rules and policies for effective classroom management. However, they were very satisfactory in providing a functional and well-planned

syllabus which specifies the target competencies, research and class activities required for course, and in using varied methods and innovative approaches (seminars, fora, field observations, problem-based discussion). They only showed satisfactory in research requirement for each subject, and demonstrate research techniques aimed at fulfilling the requirements of the course/s. As to evaluation and grading as performance indicator, the faculty were outstanding in the explaining the grading policy to students, using researches, term papers, projects and other requirements as indicators of the scholarly level of student achievement in every course, and in giving final examination to measure the breadth and depth of student's competencies, ability to apply current findings and principles on one's field of specialization, command of written communication, and the ability to analyze and synthesize ideas, and they were very satisfactory on the use of valid techniques to evaluate student performance.

Thus, the findings imply that the training needs of graduate faculty members are relative to the development of research skills so that they could produce research output of their own. These skills in doing research are much needed to assist students in the conceptualization and implementation of their own research. Professional growth and development through further studies, research activities and publications, and sharing of knowledge or expertise with other institutions, agencies and the community can be initiated among faculty members. Attendance to in-service training programs relative trends and issues in education can also be implemented for the faculty to manifest awareness of modern educational trends. These findings could be attributed to the non-significant effect of gaining scientific research competencies to teachers demonstrated by no differentiation with departments and attitudes towards research course (Şahan & Tarhan, 2015).

Training and development activities related to research efficacy of graduate professors require a lot of administrative and financial preparations to take effect the possible outcomes or changes. Factors such as funding, support, and pressure will greatly affect the research-related activities of the faculty as exposed by Mitchell and Leachman (2015). Moreover, Ortlieb, Biddix, and Doepker (2010) have argued that support for faculty should include developing faculty communities that foster positive relationships with other faculty members, encourage partnerships for research, provide a network of support, encourage critical reflection, and offer monthly support groups to help faculty members develop into their roles. The graduate faculty research efficacy needs to be developed for them to engage in research productivity and dissemination. For them to develop research self-efficacy, the faculty needs to (1) conduct research

related to productivity among students (Kahn, 2001), (2) attend research training and willing to conduct research (Love, Bahner, Jones & Nilson, 2007), (3) develop information seeking skills and research methodology skills, (4) pursue research beyond graduate study (Forester, 2004), (5) involve in the design of action research-enriched teacher education program (Wedman, Mahlos & Whitfield, 1989) and assertion of research skills development in pre-service teacher education (Tamir, 2012), (6) develop professional curiosity and insight (Rudduck, 2015), (7) attend self-support evening programs (Butt & Shams, 2013), (8) involve in research during pre-service training (Siemens, Punnen, Wong & Kanji, 2010), (9) perform research related tasks and activities (Mullikin, Bakken & Betz, 2007), (10) write research articles for publication (Forester, 2004), (11) connected to both future research involvement and higher research productivity (Lei, 2008; 2006; Hollingsworth and Fassinger, 2002; Khan & Sarwar, 2011; Bard, Bieschke, Herbert & Eberz, 2000), (12) develop advisee–adviser relationships (Schlosser & Gelso, 2001), (13) active participation in a course of a semester (Unrau & Beck (2005), (14) gain enough amount of research experience (Bieschke et al., 2000), and (15) maintain a conducive academic research training environment (Hollingsworth & Fassinger, 2002; Kahn & Scott, 2001) and (Forester, 2004).

## CONCLUSION

To capacitate graduate school faculty to become globally competitive, research capability training and development become the first priority in the strategic planning and development initiative of the school administrators. This will train them to demonstrate the required know-how in graduate level research, for a better realization of one of the most important thrusts of higher education. The integrated activities in the strategic plan will surely hone the faculty competencies and efficacies in research as evidenced by their own research publication, assisting students in developing competencies at the graduate level research, and eventually showing interest dealing with professional growth through post-doctoral studies, research writing and publications; and sharing their knowledge or expertise with external stakeholders. Regular attendance to in-service training programs will likewise develop stronger awareness relative trends and issues in graduate education. It is undeniably important that administrative and financial support to faculty to continually upgrade their research skills and preparation, publication, dissemination and utilization are needed.

## TRANSLATIONAL RESEARCH

The result of the study could be translated through journal publications, newsletters, radio, social media, and other media for information dissemination and to revisit the institutional research agenda and support from the administration. Additionally, internal stakeholders might be able to translate it into a more comprehensive institutional policy and specific strategic intervention program that could increase the interest of graduate school professors towards research writing and publications.

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