Faculty training needs assessment in research: Input to the development of a faculty research development program

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Abstract

The main purpose of the research is to assess the faculty's knowledge and skills in order to come up with a comprehensive plan and program intervention that would propel them to develop their research skills, promote research culture and improve the research productivity in the University. The study employed descriptive method in assessing the needs of the faculty across colleges and schools relative to research. A total of 165 faculty respondents across departments were surveyed regarding their needs in the area of research. Results show that based on the varying degree of urgency, all the topics in the questionnaire are considered urgent by the minority of respondents. Topping the list of urgent topics, conducting action research (M=4.19) is a sure felt-need for 82 faculty members, while 73 faculty preferred conducting qualitative research (M=4.10) and 70 for conducting lesson study or writing research lessons (M=3.97). Generally, only a minority of faculty would venture in research, and therefore by identifying them is a crucial undertaking. The prioritization of topics based on the felt need of each faculty must be delineated accordingly and becomes the basis in the development of faculty research development program.

INTRODUCTION

Research is a strong handmaid of the state not just in improving the people's lives in the community but also for national development. Recent studies have a strong foundation on incorporating new research programs for the purpose of community partnerships (Epstein & Sheldon, 2006). Since problems in the community and society are addressed and

solved through research-based interventions and programs, educational institutions like the University of the Assumption, by virtue of its thrusts and mandates, faculty and students are encouraged and obligated to conduct research in the field of humanities, social science, business, health, science, engineering, education and other disciplines. Twenty-first century teachers are urged to engage not only in instruction but also in research and extension. These modern educators are expected to inculcate essential research findings in their teaching practice (Motimore, 2000; Everton, Galton & Pell, 2000; Brown & Sharp, 2003 cited in Tabatabaei & Nazem, 2013).

Assessing the needs of the faculty is a crucial endeavor of any university that believes in the value of people. The information gathered from assessment will move teachers forward to further learning (Heritage, 2007). It is a reality that very few faculty participates in research undertaking due to lack of knowledge and skills in the realm of research. Skills and competencies in conducting research vary among faculty. Despite the fact that a number of faculty have attended graduate schooling and seminars in research, their skills in research remain to be dormant and untapped if not activated and harnessed in time. Constraining factors such as lack of data presentation and inadequate time for research hinder faculty members in producing research manuscripts (Nejatizadeh et al., 2016).

Since research has become one of the priorities of every higher education institution, the University of the Assumption through the Research and Planning Office conducted a needs assessment to describe the status and single out the needs of every faculty to improve their research skills. The needs can be yearning to further enhance current performance or to correct a weakness (Kizlik, 2010).

The main purpose of such endeavor is to assess the faculty's knowledge and skills in order to come up with a comprehensive plan and program intervention that would propel them to develop their research skills, promote research culture and improve the research productivity in the University. Specifically, this would provide baseline data for the proper identification of topics for the seminars and trainings in research for the next three years. These will include research problems that will focus on

areas of concerns or conditions that need to be further resolved (Bryman, 2007).

Since research requires a genre of skills in terms of writing and technical know-how on the act itself, training of faculty is indispensable. Writing is a multi-dimensional proficiency in various areas needing knowledge and skills (Saberi & Rahimi, 2013). In order to promote research culture and improve research productivity, conducting faculty research capability building must have a sound baseline data to consider in order to design a program that would align them with the needs of the faculty. It is a fact that improving faculty research skills cannot be done overnight, thus careful planning and prioritization of seminars and trainings must be efficiently considered. Specific topics in research must be identified clearly and rated according to its degree of need and urgency. This is in order to set up priority list for the development of an effective and sound in-service faculty training. Likewise, identification of specific topics for training would ease the difficulty in programming the sequence of priority and the selection of appropriate research experts who will be invited to facilitate the trainings. Furthermore, it would also help in the formulation of a timeline for a relevant faculty research development program for the next three years. This timeline is essential in ensuring the tasks are to be finished and not pushed-back (Ruf, 2014).

Problem objective

This study aimed at assessing the needs of faculty specifically in terms of identifying their preferred topics for capability building seminars and trainings. It assessed the degree of urgency of the various research topics and the personal research interest of faculty.

METHOD

Research design

The study employed descriptive method in assessing the needs of the faculty across colleges and schools relative to research. A descriptive research tries to clarify and explain events, resources, institutions and other fields (Selcuk, 2014). It purports to describe the respondents'

perceptions and views regarding research topics they preferred for their faculty research capacity building.

Participants and setting

A total of 165 faculty respondents across departments were surveyed regarding their needs in the area of research. There was no mandatory participation in the survey, it was just made as a form of invitation to all faculty present. Since the respondents are teachers, the locale is an academic institution.

The Junior High School (23.6%) registered the highest participation in this assessment in terms of numbers followed by the Grade School (20%) and Senior High School (9.7%). Among the colleges, the highest number of faculty members who participated in the survey was the College of Engineering and Architecture (6.1%) followed by the College of Tourism and Hotel Restaurant Management (5.5%) while among the service department the Library (5.5%) incurred the highest percentage in terms of participation with 9 participants. Further the Office of Student Affairs and Registrar's Office incurred the lowest participation. This is because there are no staff under them who are obligated to conduct research.

The faculty of the School of Arts and Sciences were only five because many opted to waive the survey due to their fluid status brought about by the K to 12 transition. Sixteen senior high school faculty joined the survey, of which half of them originated from the School Arts and Sciences. Ten faculty from the College of Engineering and Architecture also participated in the survey.

Table 1
Distribution of respondents according to college/office/school

College/Office/School	n	%
College of Business Administration	6	3.6
College of Computing Sciences and Information Technology	6	3.6
College of Engineering and Architecture	10	6.1
College of Accountancy	6	3.6
College of Education	6	3.6
College of Nursing	5	3.0
College of Tourism and Hotel Restaurant Management	9	5.5
Guidance and Admissions Office	6	3.6
Graduate School	4	2.4
Grade School	33	20.0
Institute of Theology and Religious Studies	3	1.8
Junior High School	39	23.6
Library	9	5.5
Office of the Student Affairs	1	0.6
Registrar	1	0.6
School of Arts and Sciences	5	3.0
Senior High School	16	9.7
Total	**165**	**100.0**

Instrument

A researcher-made needs assessment instrument composed of 26 items was developed based on the gamut of activities in research. The mentioned instrument was validated in terms of content by the Vice President for Academic Affairs. It was floated to the faculty upon its endorsement and approval and with the usual support of the deans through the direct assistance of college or office secretaries. A grace period of 3 weeks was allotted for the faculty to fill-out the instrument.

Ethical consideration

The researchers ensured that the respondents of the study were adequately notified about its overall purpose through a cover letter. The voluntary nature of participation was observed through the attached informed consents prior to the instrument. Respondents' freedom to refuse or withdraw at any time was included in the consents. The anonymity of the respondents for this study was strictly followed.

Data analysis

After collecting the questionnaire, survey data were analyzed through Excel Data Analysis Toolpak. Frequency, percentage, mean and standard deviation were adopted in describing the data. A simple Pearson r correlation was used in testing whether a relation exist between faculty sense of urgency and their value preference of the topic.

Using a 5 point Likert scale, mean values for each topic of interest were verbally interpreted according to their degree of urgency using the following verbal interpretation matrix:

1.00 -	1.79	Very much not urgent (VNU)
1.80-	2.59	Not urgent (NU)
2.60-	3.39	Neutral (N)
3.40-	4.19	Urgent (U)
4.20-	5.00	Very much urgent (VU)

RESULTS

The topics found in Table 2 were ranked according to the preference of the faculty. Based on the varying degree of urgency, all the topics in the questionnaire are considered urgent by the minority of respondents. Conducting action research for the improvement of instruction garnered the highest mean (m=4.19) as well as the highest number of respondents (n=82), followed by qualitative method (m=4.10, n=73), research instrument development and validation (m= 4.09, n=68) and evaluating programs and activities and developing instrument for evaluation (m=4.08, n=62). The least urgent is the conduct of ethics review of research proposal (m=3.68, n=43).

Topping the list of urgent topics, conducting action research (M=4.19) is a sure felt-need for 82 faculty members, while 73 faculty preferred conducting qualitative research (M=4.10) and 70 for conducting lesson study or writing research lessons (M=3.97).

In addition, among the top 5 in the list are the development of instrument and validation (M=4.09) and the development of instrument for evaluation (M=4.08). Faculty members see the importance of evaluating school programs through the development of valid and reliable instruments.

The use of quantitative method (M=4.05) and preparing research extension proposal (M= 4.04-4.05) were also highlighted as one of the most urgent topics that need to be provided to faculty. This is one of the requirements of the Commission on Higher Education (CHED) and accrediting agencies- to conduct extension service programs which are research-based.

It can also be inferred from the results that there is a positive correlation between faculty preference and the degree of urgency based on percentage distribution/frequency and mean ratings of the topics; that is, the higher the percentage faculty distribution preference on the topics the higher their mean urgency ratings (r= 0.769). Topics that have high mean scores registered high percentage of faculty members who preferred it. Some faculty abstained from rating possibly because some topics are a strange to them or perhaps they are not simply topics which interest them.

Generally, all the topics registered to be urgent whose means fall within 3.42 -4.22 scale.

However, there are 65 percent of faculty members who have no interest in the list of research topics in the questionnaire. Some of the topics are not the concern of most faculty members. Thus, the promotion of research culture is a very important undertaking to consider based on the results.

Table 2
Preferred topics for faculty research capability-building

Topics	n	%	Mean	SD	VI
1. Conducting action research for the improvement of instruction	82	49.70	4.19	0.993	Urgent
2. Conducting qualitative method (e.g. content analysis, phenomenology, ethnography, grounded theory, case analysis)	73	44.24	4.10	1.007	Urgent
3. Research instrument development and validation	68	41.21	4.09	0.981	Urgent
4. Evaluating programs and activities and developing instrument for evaluation	62	37.58	4.08	0.939	Urgent
5. Determining appropriate statistical tool for a given problem	63	38.18	4.06	0.998	Urgent
6. Quantitative method (e.g. descriptive, experimental, correlation, comparing means and regression)	62	37.58	4.05	1.026	Urgent
7. Preparing extension service proposal- Evaluating the impact of the extension service	63	38.18	4.05	0.980	Urgent
8. Preparing extension service proposal - Assessing the needs of the community	62	37.58	4.04	0.981	Urgent
9. Conducting lessons study and writing research lessons	70	42.42	3.97	1.166	Urgent
10. Research report writing	59	35.76	3.95	1.050	Urgent
11.Preparing extension service proposal - Writing the terminal report	51	30.91	3.93	9.966	Urgent
12.Developing a research proposal	65	39.39	3.91	1.161	Urgent
13.Conducting mixed method(e.g. embedded, concurrent)	53	32.12	3.87	1.077	Urgent
14.Proper conduct of paper presentation	58	35.15	3.87	1.125	Urgent
15. Proper citation of references using APA form (style for UA)	60	36.36	3.85	1.210	Urgent
16.Reviewing literature using online resources	50	30.30	3.84	1.018	Urgent
17.Paraphrasing cited texts	58	35.15	3.84	1.154	Urgent
18.Research advising and mentoring	64	38.79	3.79	1.275	Urgent
19.Conducting multivariate analysis (e.g. multiple regression, path analysis, structural equation modelling)	54	32.73	3.78	1.167	Urgent
20.Training on intellectual property and patent review	48	29.09	3.77	1.104	Urgent
21. Research refereeing (peer review and external review)	44	26.67	3.77	1.086	Urgent
22.Observing ethics in research	49	29.70	3.74	1.128	Urgent
23. Conducting research for beginners	62	37.58	3.73	1.312	Urgent
24. Conducting thesis/dissertation defense	53	32.12	3.71	1.262	Urgent
25. Conducting ethics review of research proposal	43	26.06	3.68	1.093	Urgent
Average	59	35.78	3.91		Urgent

Note: n= 165

DISCUSSION

In the education profession, it has been a common observation that only very few faculty engaged in research despite it to be known to and accepted by the higher education institution's community (Navarro, 2011). This is manifested in the results of the needs assessment which show that on the average, only about 36% of the faculty show interest in the conduct of research. Despite the perception of the sense of urgency in engaging in research capability building seminars and trainings (Gorard, 2001), still only about six in every ten seemed to be disinterested. Factors that may serve as hindrances to research productivity are monetary, facility-related, work-related, managerial-organizational, scientific and personal (Karimian et al., 2012).

Since there are annual research seminars and trainings across disciplines, most of the bottom five least preferred topics were already identified and administered in previous seminars in the past. Thus, the degree of urgency seemed to be diminished. Other least preferred topics such as conducting ethics review, thesis and dissertation defense, research refereeing and training on intellectual property are topics generally preferred by seasoned researchers who are very much familiar with the rigors of research (Delyser, 2003).

It is understandable that conducting ethics review which is very vital and urgent, is the least preferred topic among majority of teachers. Despite that ethics review is a fundamental requisite in approving research proposals involving human participants, the majority of faculty would not pay attention to this. It has been stipulated in the policies and procedures that there is a need to secure ethics clearance from the Ethics Board before a research proposal is approved for undertaking. It is imperative to note that ethics promote knowledge, truth and avoidance of error (Resnik, 2015). Included in ethics is the prohibition of plagiarism, a means of copying information without due citation. Scanning of manuscripts via online is now one of the best practices of the institution in ensuring research integrity.

To date, only 8 faculty members had intensive trainings in ethics review, and they are the members of the Ethics Review Board of the University. However, basic echo seminars in ethics and plagiarism were

already conducted in the previous year (AY 2014-2015) to 30 professors teaching research subjects to students across programs. In order for them to disseminate to their students the need to observe ethical protocols and procedures, a basic ethics seminar was conducted. Such capability building seminar is very vital to the faculty and student researchers because they will be guided accordingly in drafting participants' informed consent form and learn the importance of subjecting the manuscript to plagiarism scanning of the University. This is to ensure that every write-up is free of plagiarism and every research endeavor is ethically implemented. Moreover, in addition to ethics seminar, seminar on basic research for beginners had been conducted every year for several occasions especially to new teachers. Since new teachers are the minority, the topic was also ranked in the bottom five.

To an MA or a PhD holder, it is important to learn the skills of a panel member participating in a thesis/dissertation oral defense. The Graduate School of any higher education institution (HEI) may invite any academician to be part of the panel of reviewers, which somehow signifies prestige and competence of the faculty. Since there were only very few who belong to the category, topics like conducting peer review, patent review, and theses defense remained to be at the bottom list. Conducting multivariate tests is also one of the least priorities since only a few would be seriously and aggressively involved in pursuing a research with high degree of rigor and complexities in terms of statistical treatment. This is the same with the seminar and training on intellectual property, only 29% are interested in the topic and gave a mean of 3.77 because of its technical nature.

In the top list, there are four in every ten faculty members who preferred seminars that would cover action research, qualitative research and research instrument development. Action research for the improvement of classroom instruction is generally considered the top priority of teachers across colleges and schools. This type of research is considered a process of organized inquiry to improve social issues necessary in the lives of people (Hine, 2013). This is a very good indicator that Assumptionist faculty put premium on the delivery of quality instruction.

A research seminar or training which tackles classroom-based research prove to be very interesting because it is evidenced-based (Taber, 2006). There are also about four in every ten faculty who preferred seminars and trainings which focus on lessons study (Lewis, 2002). However, the topic on lessons study have a lower mean (M=3.97) compared to the aforementioned three topics. The reason behind this may be attributed to the seminars and trainings that were already conducted in SY 2013-2014 among Grade School and Junior High School Faculty members who became very much familiar with the topic. Perhaps 70 individuals (42%) wanted to pursue research lesson in their discipline and therefore considered it urgent which needs to be followed up.

Knowledge about quantitative and qualitative methods is necessary for any researcher to understand the rudiments of research (Johnson & Christensen, 2008). One must be able to understand the research method of a paper whether seen from a quantitative or qualitative approach. Learning these methods would give the faculty an advantage in understanding data at hand.

One of the pillars of higher education is extension. Because of its research component, faculty members are challenged to complete a needs assessment first as basis of the program before developing a community extension program. Moreover, every extension program must be assessed and evaluated in terms of its merits and impact on the community. Therefore, a training on developing a research extension proposal and program would prove to be meritorious.

Conclusion

Since research has been institutionalized in Philippine Higher Education (Bugnalen, 2011), all faculty are challenged to be engaged in research undertakings. In this assessment, the faculty members have their own preferred topics and therefore they have to be respected. The development of action research to improve classroom instruction (Henning, 2009) is seen as the greatest priority as reflected in the faculty preference and the degree of urgency.

Faculty also want to know the skills of developing and validating research instruments particularly those that can be used for evaluating institutional and departmental activities and programs.

Generally, only a minority of faculty would venture in research, and therefore by identifying them is a crucial undertaking. Furthermore, their felt needs in research should be satisfied. The seasoned researchers who are very much interested in advance topics in research is a good indicator that the University is slowly achieving a stronger research culture where they can possibly become great research mentors.

Recommendations

The prioritization of topics based on the felt need of each faculty must be delineated accordingly and becomes the basis in the development of faculty research development program. A scheme option for those faculty who preferred the specific topic would be given priority in the selection of participants for the in-service trainings in research.

A seminar on writing action research and instrument development must be considered across programs in order to improve the quality of instruction and to efficiently evaluate school programs and activities.

A schedule of faculty capability-building and research topics must be disseminated through a dynamic website portal that can be developed in time. Faculty researchers must be able to be well-informed not just about research topics but also about the policies and procedures as well as the research incentives and other matters to be able to be engaged in research.

The development of research portfolio of faculty members engaged in research must be sustained in order to challenge them to further their career in research. Close monitoring of their skills training in research and their achievements must be considered.

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