

Knowledge, Skills, Motivation and Facilitating Condition on Faculty Intention to Conduct Research

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Abstract: This study is about the knowledge, skills, motivation, and facilitating condition on faculty intention to conduct research. Respondents were faculty from the different schools of the identified University in Manila, a total of 94 respondents. The knowledge and skills of the faculty were gauged based on seven areas namely: critical review of literature (CRL), conceptualization of research framework (CRF), framing research question (FRQ), developing research instrument (DRI), data collection, analysis, and presentation (DCAP), documentation and mechanics of styles (DMS), and utilization of the research output (URO).

Motivation was measured through intrinsic and extrinsic factors. Included in the intrinsic factors were enjoyment, inherent satisfaction, autonomy, interest, and competence. Extrinsic factors included career and financial motivation. Significant findings revealed that majority of the respondents were very knowledgeable in the areas of CRL and CRF. In the motivation intrinsic factors such as enjoyment, inherent satisfaction, and competence were rated highly motivated, while interest and autonomy were rated motivated. Extrinsic factors such as career and financial motivation were both rated motivated, but the financial factor was considered higher than career. Moreover, knowledge and skills varied with respect to the research areas and across schools. Meanwhile no significant difference between intrinsic and extrinsic factors of motivation was revealed. Statistics showed that knowledge, skills, and motivation were correlates of the intent to conduct research of the faculty. Funding, creation of coordinator, seminars/training in research, and resources were among the most significant facilitating condition that affect the faculty's intent to conduct research.

Keywords: Knowledge and skills in research, motivation of faculty in research, facilitating condition in research, areas of research.

I. INTRODUCTION

Research and Faculty

Change is inevitable anywhere and anytime; thus, life should go with it. People, manufacturing industries, politics, culture, practices, and schools have no exemption to it. For this reason, schools of the twenty-first century society should no longer depend on the knowledge delivery or becomes teacher centered. Instead, education should consider future changes and help individuals develop their ability to act in response to that change. Professional preparation in addressing change is to come up with research. In the study of Nashash (2015), all education and training systems around the world face both a quantity and a quality challenge, in different ways depending on country specifics. The quality challenge is closely linked to the fact that there are major disconnects between the world of education and the world of work, which could be addressed through research. The faculty saw little possibility of the correlation between research and effective teaching. This is the premise that could lead the faculty to the conclusion that their knowledge and skills in doing research can be of question. Konokman, et.al (2015) in their study pointed out that teachers who carry the vital responsibility to create a knowledge society should at first themselves possess research qualifications. Aside from that, faculty need to have proper motivation and facilitating conditions leading to their intent in conducting research. Motivation is not innate

to a person and is proven in many studies that it can be developed.. Venuste, et.al (2017) concluded in their study that research clearly indicates that knowledge is the starting point to ownership of the problem, which in turn leads to the in-depth knowledge or understanding of the problem, which once again leads to personal engagement. One critical aspect of the local culture for new teachers is the definition of the proper role of the faculty. In many universities, for example, formal definitions of the criteria for promotion give research and teaching equal weight, but it is not common to find that research is “more than equal” (Mc Keachie, et.al 2011). The equality in the weight of the two aspects of achievements of teachers is not helpful in any way to improve research motivation for the faculty. In the study of Abdul-Cader et.al (2014), findings show several important factors that affect faculty motivation: lack of financial incentives, ineffective management, and lack of recognition. Research and experience show that teachers are most likely to value intrinsic rewards such as self-respect, responsibility, and a sense of accomplishment (Iliya, 2015). Academics fail to recognize the significance of emotions when they should be aware of how emotions affect the productivity of faculty, first year and junior faculty (Ruiz, et.al 2013). Accreditation of the school programs ensures the maintenance of quality standards of the institutions. Along this line, there is one specific problem that always comes out for many universities: the research output of the faculty is below minimum. Research policies have shown effects, but not on most of the academic institutions. To encourage them to engage in such activity, the school administrators should think of motivating factors and facilitating condition. It is very vital to get them driven to do research by introducing factors that will push them in that direction.

Research Problem

The study aimed to determine the knowledge, skills, motivation, and facilitating condition on faculty intention to conduct research. Specifically, it answered the following questions:

1. What is the knowledge and skills in research of the respondents in the areas of critical review of literature (CRL), conceptualization of research framework (CRF), framing research questions (FRQ), developing research instrument (DRI), data collection, analysis, and presentation (DCAP), documentation and mechanics of style (DMS), and utilization of research output (URO)?
2. What is the motivation for research of the respondents in terms of intrinsic and extrinsic factors? Intrinsic factors were gauged based on enjoyment, inherent satisfaction, autonomy, interest, and competence while extrinsic factors were measured according to career and financial factors.
3. What are the identified facilitating condition which mostly affect the intent to conduct research of the respondents?
4. Is there significant difference in the knowledge and skills in research among research areas and schools as well as between extrinsic and intrinsic motivation?
5. Is there a significant relationship among knowledge, skills, motivation, and intent to conduct research of the respondents?

II. METHODOLOGY

The study used the quantitative research design. A quantitative research approach primarily follows the confirmatory scientific method because its focus is on hypothesis-testing and theory-testing. Quantitative researchers consider it to be of primary importance to state one’s hypotheses and test those hypotheses with empirical data to see if they are supported (Burke,et al., 2014).The knowledge, skills, motivation, and facilitating condition were the factors considered in this study. The researcher used the simple random sampling method to select the 94 respondents. The research questionnaire was formed through adaptations of previously used questionnaires for research. Part 1 provided the demographic profile of the respondents. Respondents were asked to accomplish a checklist indicating age, gender, civil status, highest educational attainment, teaching specialization, and research experience. In Part 2, a 4-point Likert scale was used to determine the knowledge and skills in research of the faculty. Part 3 also utilized a 4-point Likert scale to find out the motivation of the faculty respondents for research. Part 4 assessed the facilitating condition as it affected the intent to do research, also using a 4-point Likert scale. Frequency and percentage were used to process and present the demographic profiles. Mean was used for the computation of knowledge, skills, motivation, and facilitating condition of the respondents. A more detailed description and interpretation of data followed, based on the range identified in the research instrument. Two-factor analysis of variance was used to identify whether there were significant differences in the knowledge and skills in research of the respondents among the different research areas and across schools. Multiple regression analysis were applied to test if there was significant correlation between the knowledge, skills, motivation, and their intent to conduct research.

Research Paradigm

The study is anchored on the theory of planned behavior which was proposed by Icek Ajzen in 1985 through his article "From intentions to actions: A theory of planned behavior (TPB). Any intent to do research is hard to generate from the faculty who spend most of their time teaching inside the classroom. To cultivate the intention means that there are variables like knowledge, skills, and motivation of the faculty in research that have been asserted first. It could be the stimulus leading to the research output of the faculty, but there are mediating variables (facilitating conditions) which may or may not directly affect the intent to do research by the faculty. Facilitating conditions could be funding, creation of coordinator, seminars/training on research and resources of the University.

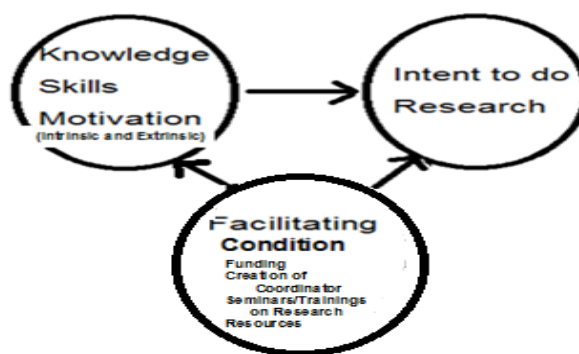


Figure 1.

III. RESULTS AND DISCUSSION

Knowledge and Skills in Research

The highest assessment was given to the respondents' knowledge of critical review of literature (CRL), 3.33 (very knowledgeable), then followed by conceptualization of the research framework (CRF) which had a mean of 3.27 (very knowledgeable). Third is framing research questions, 3.24 (knowledgeable); fourth is documentation and mechanics of styles (DMS) 3.21 (knowledgeable); 5th is developing research instrument (DRI), 3.05 (knowledgeable); 6th is data collection, analysis, and presentation (DCAP), 2.97 (knowledgeable); and last is utilization of the research output (URO), 2.94 (knowledgeable). Utilization of the research output (URO) being the last in ranking is always expected because it is not usually practiced. To improve this, the faculty must undergo research training and seminars. The study of Navidad (2017) determined that research training is very important and essential in improving educators' research skills and providing better understanding of the outputs.

Motivation in Research

Respondents were assessed "highly motivated" on intrinsic factors such as enjoyment (3.35), inherent satisfaction (3.32), and competence (3.30), while the assessment of other factors like autonomy (3.17), and interest (3.21) were assessed as motivated only. Templeton (2016), in his study stated that intrinsic motivation is considered the dominant factor in the motivation of adult students in continuing postgraduate education. Likewise, the extrinsic factors assessed based on career (3.19) and financial (3.22) factors were both assessed as motivated also. According to Ryan and Deci (2000, as cited by Templeton, 2016), students could be motivated to learn a new set of skills because he or she understands their potential utility or value or because learning the skills will yield a good grade and the privileges a good grade affords. This proves that respondents were more inclined and would like to believe in the power of motivation that comes from within, more than those coming from external rewards.

The Facilitating Condition as it Affects the Intent to do Research

Funding was the facilitating condition with the highest mean of 3.50, interpreted as strongly agree. It was followed by creation of coordinator, with mean of 3.45, interpreted as strongly agree. The third in the rank was resources with mean of 3.33, interpreted as strongly agree. The last in the rank was seminars/training on research with mean of 3.30, interpreted as strongly agree. Navidad (2017), found out from her study that educators' lack of motivation in research may be due to lack of external funds and resources, lack of research skills, and lack of moral support and collaboration.

Difference of Knowledge and Skills in Research

Table 1: Analysis of Variance on Knowledge and Skills of the Respondents between Research Areas and Across Schools

| Source of Variation | SS | df | MS | F | P-value | Interpretation | Decision |
|---------------------|----------|----|----------|----------|----------|----------------|-------------------|
| Rows | 5.311424 | 12 | 0.442619 | 16.05737 | 7.13E-16 | Significant | Reject hypothesis |
| Columns | 1.73236 | 6 | 0.288727 | 10.47446 | 2.51E-08 | Significant | Reject hypothesis |
| Error | 1.984668 | 72 | 0.027565 | | | | |
| Total | 9.028453 | 90 | | | | | |

The P-values that were generated from the results of the test measuring the difference between knowledge and skills in research per area (7.13×10^{-16}) and across different schools (2.51×10^{-8}) yielded an amount lower than 0.05, which implies the rejection of the null hypothesis. Knowledge and skills between research areas and across schools of the respondents were significantly different. In the study of Caruso (2015), employees acquire ideas, skills, and knowledge on the job, often through informal learning experiences, and it is this knowledge that makes a company competitive. Collaboration, which is included in the skills set of 21st century education, is one of the skills that the tertiary faculty should develop. This could serve as lubricant to reduce the friction existing among the faculty of the university. Potemski & Matlach (2014), in their study said that professional development for new teachers should expand content knowledge, focus on instructional practice, encourage collaboration, and provide opportunities to ask questions and seek answers.

Difference between Intrinsic and Extrinsic Motivation

Table 2: Difference between Intrinsic and Extrinsic Motivation in Research of the Respondents

| Motivation | Mean | Variance | P-value | Interpretation | Decision |
|------------|------|----------|---------|-----------------|------------------------|
| Intrinsic | 3.27 | 0.1715 | 0.2218 | Not significant | Accept Null Hypothesis |
| Extrinsic | 3.18 | 0.2645 | | | |

Comparison of the mean shows that intrinsic (3.23) is more than extrinsic factors (3.18). This implies that motivation of the respondents is more likely to be based on enjoyment, inherent satisfaction, interest, autonomy, and competence rather than career and financial considerations. Comparing the variance of intrinsic factors (0.1715) with that of extrinsic factors (0.2645), it can be established that the consistency of the assessment in intrinsic factors is better than that of extrinsic, which is more erratic. Lee and Pang (2014, as cited by Templeton, 2016) suggest in their conclusions that career advancement is the most influential motivational orientation.

Correlation between Knowledge, Skills, Motivation, and Intent to do Research

Table 3: Multiple Regression Analysis of Knowledge, Skills, Motivation as Correlates to Intent to do Research

| | Coefficient | Standard Err | t Stat | P-value | Lower 95% | Upper 95% | Lower 95.0% | Upper 95.0% |
|-----------|-------------|--------------|----------|----------|-----------|-----------|-------------|-------------|
| Intercept | 2.993192 | 0.931148 | 3.214518 | 0.002757 | 1.104736 | 4.881648 | 1.104736 | 4.8816482 |
| K&S | -0.99089 | 0.438685 | -2.25877 | 0.030052 | -1.88058 | -0.10119 | -1.88058 | -0.101195 |
| IM | 0.986721 | 0.448161 | 2.201709 | 0.034179 | 0.077807 | 1.895634 | 0.077807 | 1.8956344 |
| EM | -0.0423 | 0.248145 | -0.17046 | 0.865605 | -0.54556 | 0.460963 | -0.54556 | 0.4609629 |

The intercept is the intent to do research, K&S represents the knowledge and skills, IM refers to the intrinsic motivation while EM refers to the extrinsic motivation. The regression equation model that was generated from the output is $y = 2.99 + (-0.99)K\&S + 0.99 IM + (-0.04) EM$. P values that were generated yielded results lower than 0.05 for Intent (0.003), K&S (0.03), IM (0.03); however, EM registered a higher result (0.87). This indicates that knowledge, skills, and intrinsic motivation can be predictors for the intent to do research. Here the extrinsic motivation of the respondent, by itself, cannot be considered a predictor. Tsutsumi (2016), found out in his study that inner psychological aspects of motivation can be a powerful source of motivation. Research and experience have shown that teachers are most likely to value intrinsic

rewards such as self-respect, responsibility, and a sense of accomplishment (Iliya 2015). Through engagement with research (both reading existing work and conducting their own research), teachers become more critical, reflective, and analytical about their practice in classrooms (Atay, 2008 as cited by Merhani, 2015).

IV. CONCLUSION

Research experience of the faculty must be improved to develop research experience in proportion to their teaching experience. They were considered weakest in the areas of developing research instrument (DRI), data collection and presentation (DCAP), framing research questions (FRQ) and utilization of the research output. Faculty gives more emphasis on intrinsic factors such as enjoyment, inherent satisfaction, and competence, and felt less in the areas of autonomy and interest. In the extrinsic side, faculty chose to consider the financial factors rather than career as motivation in research. Faculty's knowledge and skills in research were varying in terms of the different research areas and across schools. Though not significantly different, the intrinsic factors rated higher than extrinsic factors of the respondents. A faculty which is very knowledgeable in terms of knowledge and skills in research is also highly motivated in conducting research. Faculty's knowledge, skills, motivation in research can be predictors of the intent to do research of the faculty.

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