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Research Capability, Support, and Difficulties as Viewed among Faculty Members of the University of Bohol

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ABSTRACT

Research capability in this study is the potential of individuals in the institution to undertake the rigors of effective, efficient, and high-quality research. This study looked into the challenges that professors may face when conducting research. The study was quantitative in nature employing the survey method. The status of the research capacities of faculty from different departments was described using a standardized survey form. From a total of 296 full-time and part-time faculty of the University in 2017, a random sample of 210 respondents were selected with a +/-3.65% margin of error at a 95% confidence interval. This study protocol passed the review of the University's Research Ethics Committee. The data were analyzed using frequencies, percentages, weighted means, , Chi-square, and ANOVA.. The findings revealed that the teacher-respondents were relatively young. The results further yielded that the respondents are Moderately Capable of their research capability regarding technical aspects and the major parts of the research paper. As to the other parts of the research paper, they rated themselves as "Capable," as to referencing; teacher respondents rated themselves as "Moderately Capable." Regarding the level of support for the provision of research facilities and resources, respondents rated "Moderately Supportive." When it comes to the levels of difficulty encountered in research writing, respondents perceived it as "Moderately Difficult." Furthermore, results revealed significant relationship between respondents' research capability and their age (χ^2 = 918, p =.000),

sex ($\chi^2 = 924.80, p = .000$), civil status ($\chi^2 = 943.70, p = .000$) highest educational attainment ($\chi^2 = 994.90, p = .000$), number of years in teaching ($\chi^2 = 934.10, p = .000$), and college assignment ($\chi^2 = 1042, \mathrm{p} = .000$) (.Respondents' perception of the degree of research support was also significantly associated with their age ($\chi^2 = 992, p = .000$), sex ($\chi^2 = 900.40, p = .000$), civil status ($\chi^2 = 961.30, p = .000$), highest educational attainment ($\chi^2 = 1028, p = .000$), number of years in teaching ($\chi^2 = 1049, p = .000$), and college assignment. ($\chi^2 = 1053, \mathrm{p} = .000$). Finally, there were no significant variances in the respondents' research capability (*F*=0.644, *p*=.853), and level of research assistance (*F*=0.895, *p*=.581) when respondents were classified according to their departmental assignment.

Keywords: Research capability, research productivity, quantitative method, Chi-square, ANOVA, Philippines, Asia.

INTRODUCTION

The preparation of a country to be globally competitive relies hugely on its higher educational institutions (HEIs), where the actual honing and training of the skills, competencies, and outcomes of the human capital happened. Research plays a critical component in a university's quest for excellence. This particular component can translate the vision-mission and goals of the institution down the line. It further defines its function to respond to the call for the transformation of society by changing the lives of the learners for a better tomorrow. Apart from that, the daunting challenge of globalization that looked into the research being given a critical focus for knowledge generation and discovery of new strategies to promote the quality of life is part of the strategic objectives of the University of Bohol. quality research engagement among faculty and personnel in the institution is imperative. Those who generate quality papers have the reputation of scholastic excellence and academic maturity, as stated by the Commission on Higher Education (CHED) in 2002.

Research capability is defined in this study as the potential of individuals in the institution to undertake the rigors of effective, efficient, and high-quality research. It further covers the consideration of the institution regarding incentives, economic, political, and regulatory

context. All policies and programs within and outside the University should be anchored on research to test their effectiveness and ineffectiveness. In turn, the school should be a reservoir of research experts that can serve as trailblazers of change for students and alumni alike to emulate and model. Scholars openly express that scientific research is an imperative success component in the academic field. It can be measured by the research productivity of the extent of their contribution to the generation of new knowledge. The term "research productivity" refers to a measure of a department's or institution's renown. It is inextricably tied to a faculty member's reputation, visibility, and advancement in the academic compensation system (Creamer 1998). The productivity of any academic system must be measured by how effective the teaching-learning process is within the institution.

The expectations for university faculty to engage in research have been on the rise for more than half of the century. It is required that research productivity be part of the criteria for hiring, tenure, and promotion for research universities. The bigger perspective over and above the creation of new knowledge, research is considered essential for the development of school faculties and the retention and attraction of external partners. Older schools with more robust research portfolios continue to develop research programs with established funding sources, allowing them to teach new faculty members. (Mullan, Frehywot, Omaswa, Buch., Chen, Greysen. & Diomande, 2011).

As a way of responding to the University's call for enhancing its research culture to serve the community, country, and globe better, this study was intended to assess the research capacity of the University's faculty and determined the factors that explained their research productivity. It also looked into their department's organizational culture to enhance research productivity and the self-evaluation of their research ability. Further, it looked into the difficulties the faculty may encounter in the conduct of research. In a way, the findings of this research can significantly contribute to the strategic planning of its programs and policies for its research and development portfolio.

The evidence shows that universities with high research output achievements are most likely to be ranked higher regarding academic standards and instruction, which is so mixed at its best. Whether they are connected or not, both are essential in higher education. It is a non-issue that research and teaching are the major pillars of the curriculum when it

is designed to achieve this goal (Elton, 2001). Therefore, research should be given equal importance with teaching in HEIs to attain the strategic objective of generating knowledge.

Furthermore, integrating research and teaching into the design and implementation of higher education curricula is critical and should be prioritized in HEIs. Those who produce high-quality papers are more likely to experience the reputation of educational excellence and academic maturity, as stated by the Commission on Higher Education (CHED) in 2002. Further, Brew (1999, 2003) stated that if research and teaching are interwoven into the curriculum to promote students' involvement with their faculty members' research efforts, this should contribute greatly to their learning.

A good indicator of the research capacity of a country is its investment in Research and Development activities.. UNESCO's Institute for Statistics calculated the human resources stock by area in 2002 using gross domestic expenditure on research and development per researcher (UIS 2006). The obvious gap in research capability among different locations is far more substantial than was previously considered in the possibility of improving research capacity. North America has the highest number of researchers per million people in the globe, according to the study (4,280). Africa, on the other hand, ranks last, with only 73 researchers per million people. Oceania comes in second with 2,397 researchers per million people, followed by Europe with 2,319 and Asia with 555.

The Philippine educational landscape made a massive tectonic leap of higher education when the CHED imposed higher reforms. Waves of innovations transpired as it persistently oversights more than 2,300 Higher Education Institutions (HEIs), and the bulk of such figures (1,643) are private institutions (Remedio 2015). CHED Memorandum Order (CMO) No. 46 s. 2012 entitled "Policy Standard to Enhance Quality Assurance in Philippine Higher Education through an Outcomes-based and Typology-based Quality Assurance" was implemented. Article six of such concretely states the Quality Assurance Framework that defines the accurate alignment and consistency in the manifestations of the learning environment, service outcomes, and the culture of quality that are being cascaded from the vision-mission and goals of the institution.

Improving educational quality is a national priority. The looming issues of assuring quality and workplace readiness have played a significant role in the evolution and development of the Philippine certification movement.

The looming issues of assuring quality and workplace readiness have dominated the evolution and development of the Philippine accrediting movement. The clear connection and right mix and balance between government regulation, private sector-led accreditation, and requirements' adaptation of the actual work environment need constant monitoring. In this vein, several efforts at accreditation establishments to guarantee quality have evolved (del Rosario 2007).

The business community and employers alike have given a stern warning that there is an inadequacy of the supply of well-trained and prepared graduates, limiting the business system's performance and forcing a downward trajectory in expansion plans (Ordonez and Ordonez 2009).

Considering that research is an essential component of faculty's responsibilities, HEIs' teaching staff have consistently worked on research productivity and other contributing factors to the process. HEIs in the developing world, on the other hand, have maintained substantial teaching functions while having minimal research capabilities (Sanyal & Varghese, 2006).

Submission of schools into different accrediting bodies and attaining levels of accreditation would make HEIs raise the bar of performance by checking themselves against standards. Those accrediting bodies apparently stipulated apart from graduates' outstanding performance on licensure examination, research and publication are also highlighted on high standard faculty development program as vibrant in the University. Furthermore, level IV accreditation emphasizes the requirement of solid research and publication projects, among others. With this expectation, universities can par with global universities' quality and standard of excellence (Conchada & Tiongco 2015). The research builds on the studies on Formeloza's and Patena's study on the research capability of faculty and students and the study of Alghanimand Alhamali (2011) on the research productivity among faculty members in medical and health schools in Saudi Arabia.

The knowledge management system highlights that managing knowledge has been an essential fuel in the current knowledge economy. In this light, the breakthrough and diffusion of knowledge have become imperative in the competitive world. Moreover, knowledge is regarded as a valuable commodity embedded in products (especially high-technology products) and the tacit knowledge of highly mobile employees (Dalkir,

2005). Furthermore, dynamic research capabilities include knowledge and data that may be gathered and preserved (Helfat et al., 2007; Kogut and Zander, 1992). Various authors distinguished knowledge exploration or creation from knowledge exploitation or application in terms of the institution's critical knowledge management procedures, at times explicitly stating the necessity for knowledge retention over time (Bogner and Bansal, 2007).

Various scholars of the theory of the institution or firm started to stress the foundations and conditions of such thing as being attributed as "the organizational advantage" instead of zeroing into the causal effect of market failure. In most situations, research experts believed that an organization's advantage stemmed from its unique capabilities for creating and disseminating information. This argument made a contribution to the body of work by proposing the following ideas:

Social capital smoothens the creation of new intellectual capital as it facilitates such. Being institutional settings, organizations are advantageous to the progress of high levels of social capital. Firms have the edge over markets in producing and exchanging intellectual capital due to the more dense social capital characteristics. As a result, a model is offered that combines this overarching argument in the form of a set of postulated correlations between distinct aspects of social capital and the fundamental mechanisms and processes required for intellectual capital generation (Nahapiet & Goshal 1998).

The Motivation System Theory (MST) could be used to examine faculty participation in research. The theory assumes that a person's actual performance and competence are based on their ability to be motivated, skilled, and biologically capable of achieving a goal in the presence of a responsive environment (Campbell, 2007; Ford, 1992). Every faculty member must have a solid understanding of research methodologies to achieve the requisite competence, motivation, and commitment to conduct research (Garde-Hansen & Calvert, 2007; Mendoza, 2007).

When people learn in an academic setting, they should stay motivated to study even when they face challenges. The two are inversely proportional, with greater perseverance leading to greater achievement and rewards. Persistence is commonly used as a meaningful and quantitative component of motivation by researchers (Campbell 2007). Faculty members' traits may have a substantial impact on their academic activity. The institutional structure, according to studies, has an impact on research productivity.

Dundar and Lewis (1998) claim that when all other things are equal, the larger the faculty unit, the higher the research productivity. To put it another way, Vasil (1992) found that faculty members who are confident in their research talents have higher research productivity.

Bean's (1982) model of faculty research productivity introduced the perceived legitimacy in one's research as an explanatory component. In his investigations, Vasil (1992,1996) found that increased ability and self-efficacy were also connected to increased research productivity. When people have more freedom to collaborate, research output rises (Bland & Berquist, 1997). According to Landry et al. (1996), all types of collaboration can help researchers be more productive. On the other hand, Wage disparity was found to reduce collaboration by Pfeffer and Langton (1993).

According to Bailey (1992), rank is a strong determinant of research productivity. Dundar and Lewis (1998) discovered that departments with higher-ranking faculty produced more research. According to Vasil (1992), rank is a strong indicator of research productivity. Perceived institutional and departmental support for research is critical accelerator of research productivity.

SDG4 is one of 17 Sustainable Development Goals (SDGs), which has something to do with international education. Goal 4.3 of SDG4 focuses on higher education to ensure that all men and women have equitable access to affordable, high-quality technical, vocational, and postsecondary education, including University, by 2030. Higher education is also a vital component of a number of other SDG-related initiatives. Poverty (SDG1), health and well-being (SDG3), gender equality (SDG5), governance (SDG8), decent work and economic growth (SDG8), responsible consumption and production (SDG12), climate change (SDG13), and peace, justice, and strong institutions (SDG14) are just a few of the Sustainable Development Goals (SDGs) that have been established (SDG16).

The United Nations Educational, Scientific, and Cultural Organization (UNESCO) provides leadership, sets standards, and develops higher education capabilities in 194 countries in collaboration with ministries, international agencies, and other implementing partners. One of its initiatives is the Global Initiative for Quality Assurance Capacity, which aims to give knowledge and capacity to enable higher education stakeholders to make better-informed decisions in an ever-changing world.

The Global Platform on International Quality Assurance, Accreditation, and Qualification Recognition is a discussion forum for partners and stakeholders in international and cross-border higher education. It addresses the social, political, economic, and cultural factors that influence globalization and higher education. The World Bank and UNESCO joined to launch the Global Initiative for Quality Assurance Capacity (GIQAC) in 2007, to facilitate and advance inter-regional and regional quality assurance networks in higher education in developing and transitional countries.

According to Section 1 of Article 14 of the 1987 Philippine Constitution, "the state shall safeguard and promote the right of all people to quality education at all levels." The Commission on Higher Education (CHED) was founded by Republic Act 7722, often known as the Higher Education Act of 1994, to promote and support higher education in the Philippines.

The Commission on Higher Education (CHED) is also in charge of monitoring and evaluating higher education programs and institutions' performance.

Its major goal is to discover the truth. By definition, the words "research" and "re-search" imply that the person must "search again," take a closer look, and learn more (Selltiz et al., 1976). This may be done because what one already knows is insufficient, confusing, or completely incorrect. A social behaviorist, Kerlinger (1986), describes research as "a systematic, controlled, empirical, and critical exploration of natural events guided by theory and hypothesis about the presumed relationships between such phenomena." The following is a more basic and all-encompassing definition of research: Research is a methodical, impartial, and comprehensive analysis of a phenomenon that entails collecting, recording, critically analyzing, and interpreting all relevant data. The ultimate purpose of the research, according to this definition, is to obtain or establish facts regarding the subject being examined. This is the method via which these facts will be obtained. With the ultimate goal of improving research, knowledge workers will be given solid foundations for planning and decision-making and tools and methods for monitoring, assessing, and implementing interventions. Research entails looking for a hypothesis, testing that theory, or addressing an issue in modern-day and age. It signifies that there is a problem that has been detected and that a remedy is required. The situation is unique in that the remedy is available right now. According to the definition, Purposive research is research that is carried out with a specific goal in mind.

STATEMENT OF THE PROBLEM

For the school year 2017-2018, this study examined the research capability, support, and difficulty as perceived by faculty members from several departments at the University of Bohol, as well as the implications for research output. The findings of which will be used to develop an intervention program to to address the gaps.

It aims to answer the following questions in particular:

1. What is the level of research capability among the respondents in producing the major parts of the research paper on the following aspects:
    - 1.1 technical aspect;
    - 1.2 major parts of the research paper
        - 1.2.0.1 introuction;
        - 1.2.0.2 methods;
        - 1.2.0.3 results and discussion;
        - 1.2.0.4 conclusion and recommendations:
    - 1.3 producing the other parts of the research paper; and
    - 1.4 references?
2. What is the level of support for the provision of research facilities and resources as perceived by the respondents?
3. What is the level of difficulty encountered in research writing among the respondents?
4. What is the research productivity among the respondents in the aspects of publication?
5. Is there a significant degree of relationship between the profile of the respondents and the following:
    - 5.1 research capability
    - 5.2 level of research support
6. Is there a significant degree of variance when respondents are grouped according to department assignment on the following areas:
    - 6.1 research capability
    - 6.2 Level of support
    - 6.3 Difficulties encountered in research writing
7. Based on the findings of this study, what are the recommendations?

RESEARCH METHODOLOGY

The study used a quantitative approach and a descriptive, normative survey method to collect data on the current state of the phenomenon to explain "what existing" in terms of variables or circumstances in a situation. The study focused on the faculty respondents' abilities to do research.

The research was carried out to all academic departments of the University of Bohol. The respondents were full-time and part-time, took part in the study. From a total of 296 faculty members in 2017, a random sample of 210 respondents were selected with a +/-3.65% margin of error at a 95% confidence interval. Furthermore, as part of the study protocol, the research methodology and questionnaire were examined by a panel of specialists from the University Research Ethics Committee to ensure that the "do no harm" principle was followed throughout the study. It assured that agreement was obtained from every faculty respondent that they are willing to participate in the study by affixing their signature after the entire administrative procedure for the approval of the conduct was completed. They were told of the study's goals, and they have the right to refuse to participate at any time if they believe their rights have been infringed.

The questionnaire for the research capacity survey was based on the publication "Research Capability of Maritime Faculty Members and Senior Students in Lyceum International Maritime Academy" by Formeloza and Patena (2013). The survey questionnaire was based on Alghanim and Alhamali's (2011) study, "Research Productivity among Faculty Members at Medical and Health Schools in Saudi Arabia," which investigated faculty research productivity.

The tool was of five parts. The demographics of the respondents are the focus of the first part. The second section contains self-assessed questions about the respondents' research competency in technical areas, important parts of the research paper, and satisfaction with the facilities/ resources. The final section covered the faculty's research productivity as well as the challenges they faced. For the research capability, Likert Scale was used based on their level of competence and satisfaction with each statement presented in sub-categories.

RESULTS AND DISCUSSION

Profile of the Respondents

The teacher respondents are relatively young. While the majority (64.29%) of them are 42 years and younger, four out of ten fall within the 21-32 age group. Less than 15 percent are in the age group 53 and above. Seven out of 10 are females. The teacher respondents are divided as married (half of them) and single (44%) while only three are separated. As to their highest educational attainment, slightly more than a third (35.24%) have MA units while a quarter is undergrad degree holders. Less than 10 percent (7.14%) are PhD holders. Considering that teacher respondents are relatively young, three out of 10 have been teaching for three years and below. Another three out of 10 taught at the University for 4-9 years. Slightly more than a fifth (23.81%) have been teaching for 15-24 years while less than 10 percent (7.14%) have taught for 25 years and above.

Level of Research Capability among the Respondents

Table 1. Level of Research Capability among the Respondents in terms of Technical Aspect

Indicators	Weighted Mean	Interpretation	Rank
1. Grammar and sentence construction	2.91	Moderately Capable	1
2. Communication skills (in writing and the conduct of research data gathering, interviews, etc.)	2.87	Moderately Capable	2
3. Research paper format	2.58	Moderately Capable	3
4. Research organization	2.55	Moderately Capable	4
Aggregate Mean	**2.73**	**Moderately Capable**	

Parameters

Mean Range			Interpretation
3.25	-	4.00	Higly Capable
2.50	-	3.24	Moderately Capable
1.75	-	2.49	Slightly Capable
1.00	-	1.74	Less Capable

The aggregate mean for the level of research capability among the teacher respondents in terms of technical aspect is 2.73 and this means they are Moderately Capable (Table 1). There are four indicators under the Technical Aspect Level of Research Capability, namely, Research paper format, Grammar sentence construction, Research organization, and Communication skills (in writing and the conduct of research data gathering, interviews, etc.). Though all indicators rated a Moderately Capable weighted mean, Grammar and sentence construction registered the highest weighted mean of 2.91 while the Research organization registered the lowest (2.55). This result is contrary to the findings of Formeloza and Patena 2013 when they found out that their maritime faculty in Lyceum International Maritime Academy ranked closely to the bottom on competence on grammar, sentence construction, and communication skills, respectively. Both authors presupposed that these challenges arose in their school when writing the paper as their researchers were not specializing in the field of the English language. In the University of Bohol, this English facility is a non-issue as grammar and English construction was rated highest. Although there is still a room for improvement as it was rated as Moderately Capable.

In all the major parts of the research paper as Table 2 reflects, teacher respondents assessed themselves as Moderately Capable, but the highest aggregate mean registered was in methods (2.55). Introduction and Results and Discussion both obtained an aggregate mean of 2.52. Conclusion and Recommendation registered the lowest aggregate mean of 2.51. A closer look in each of the major parts, for Introduction, Writing an Introduction garnered the highest weighted mean of 2.64 while Formulating theoretical/ conceptual paradigm registered the lowest weighted mean (2.43).

For Methods, the subparts that registered top three weighted means are: data collection (2.67), data entry (coding and cleaning) (2.62) and constructing the questionnaire (2.59). The bottom two are a statistical treatment (2.38) and develop research design (2.47). Under Results and Discussion, presentation of data gathered (2.54) registered the highest weighted meanwhile correlating literature to affirm results registered the lowest (2.46). Under Conclusion and Recommendation, the major part that registered the lowest aggregate mean, the sub-part of synthesizing results registered the lowest with a weighted mean of 2.49 which is Capable. The sub-parts, expressing additional value or importance to existing facts and formulating recommendations to address the research

Table 2. Level of Research Capability among Respondents in Major Parts of Research Paper

Indicators	Weighted Mean	Interpretation	Rank
A. Introduction			
Writing an Introduction	2.64	Moderately Capable	1
Sources of Literature Review	2.57	Moderately Capable	2
Creating Research Problem	2.53	Moderately Capable	3
Formulating Hypothesis Items	2.50	Slightly Capable	4
Sources of Literature Review	2.47	Slightly Capable	5
Conceptualising Research Literature	2.43	Slightly Capable	6
Aggregate Mean	***2.52***	***Moderately Capable***	
B. Methods			
Data collection	2.67	Moderately Capable	1
Data entry (coding and cleaning)	2.62	Modarately Capable	2
Constructing questionnaire	2.59	Moderately Capable	3
Wording and ordering questions	2.57	Moderately Capable	4
Sampling/sample framework	2.54	Moderately Capable	5
Develop research design	2.47	Slightly Capable	6
Statistical tool/treatment	2.38	Slightly Capable	7
Aggregate Mean	***2.55***	***Moderately Capable***	
C. Results and Discussions			
Presentation of data gathered	2.549	Moderately Capable	1
Interpretation	2.541	Moderately Capable	2
Correlate literature to affirm results	2.464	Slightly Capable	3
Aggregate Mean	***2.52***	***Moderately Capable***	
D. Conclusions and Recommendations			
Expressing additional value or importa	2.52	Moderately Capable	1.5
Formulating recommendations to add	2.52	Moderately Capable	1.5
Synthesising results	2.49	Slightly Capable	3
Aggregate Mean	***2.51***	***Moderately Capable***	
Overall Aggregate Mean	***2.53***	***Moderately Capable***	

problem and concerns found in the study were rated 2.52 with an equivalent of the Moderately Capable level. Such process of formulating the recommendations to address the problems and concerns and putting into perspective the added value of importance of the results which could be the bases of recommendations. Such particular issue is very evident among the peer reviewers who put patience in guiding the researchers in polishing their work in the University publication.

The parallelism of results is still evident on Formeloza and Patena 2013 paper as both authors had moderate competency level results on their findings on the major parts of the research paper. Their findings also showed that the Introduction, sources of literature review garnered the highest value among those being rated as Moderately Competent, a very slight difference on the current study conducted at the University of Bohol.

Level of Research Capability: Other parts of the research paper

As to the Level of Research Capability on Other Parts of the Research Paper, the aggregate mean is 2.49 which is Competent (Table 3). The bottom three lowest weighted means are: Using the abstract format (2.43), Summarising the research methods used (2.48) and Clearly stating the research focus (2.49). All these weighted means have an equivalent interpretation of Capable. Outlining the results and discussion of the study (2.52) and Summarizing conclusion and recommendations of the study (2.51) have the equivalent rating of Moderately Capable.

Table 3. Level of Research Capability among the Respondents Other Parts of Research Paper

Indicators	Weighted Mean	Interpretation	Rank
Outlining the results and discussion of the study	2.52	Moderately Capable	1
Summarizing conclusion and recommendations of the study	2.51	Moderately Capable	2
Clearly stating the research focus	2.49	Slightly Capable	3
Summarising the research methods used	2.48	Slightly Capable	4
Using abstract format	2.43	Slightly Capable	5
Aggregate Mean	***2.49***	***Slighly Capable***	

Level of Research Capability: References

Teacher respondents rated themselves as Moderately Capable when it comes to Referencing as a research capability (Table 4). The presentation format of references and Accessing of available and updated materials obtained weighted means of 2.50 and 2.54, respectively. There is a congruence in this result with that of the study of Formeloza and Patena 2013 as this area of references was rated as competent by their teacher respondents as well. This finding came out as the faculty members made the possible means of accessing of available updated materials in the conduct of their studies. However, the moderately competent result came out in the referencing presentation/format because there could be a need to study and get familiarized themselves with the utilization of prescribed APA style guide.

Table 4. Level of Research Capability among Respondents in Generating References

Indicators	Weighted Mean	Interpretation	Rank
Accessing of available and updated materials	2.54	Moderately Capable	1
Presentation/format references	2.5	Moderately Capable	2
Aggregate Mean	***2.52***	***Moderately Capable***	

Level of Research Capability: A Summary

Overall, the level of research capability aggregate mean of all indicator is 2.56, Moderately Capable. Technical Aspect obtained the highest weighted meanwhile Other Parts of the Research Paper obtained the lowest (2.49). See Table 5. These findings run parallel with the outcome of the study conducted by Formeloza and Patena 2013 when they claimed that overall assessment of their Maritime faculty members in the Lyceum International Maritime Academy had an overall assessment of moderately competent.

Table 5. Summary Table on the Level of Research Capability

Indicators	Weighted Mean	Interpretation	Rank
Technical Aspect	2.73	Moderately Capable	1
Major parts of research paper	2.53	Moderately Capable	2
other parts of research paper	2.52	Moderately Capable	3
References	2.49	Slightly Capable	4
Aggregate Mean	***2.57***	***Moderately Capable***	

Level of Support for the Provision of Research Facilities and Resources

The aggregate mean for the level of support for the provision of research facilities and resources is 2.55, Moderately Supportive (Table 8). The top five support provided are as follows: Consultation services of adviser (Dean, Research Committee, Research Staff) (2.77), Service of the Statistician (2.70), Journals, Books and other materials (2.68), Service of Editor/Grammarian (2.60), and Publication of Institutional Research Journals (2.59).

The bottom three ranked with the lowest level of support provided are: Budget for writing research (2.40) and ranking second from the bottom is Budget for Research and Budget for Seminars, each with a weighted mean of 2.45. These findings agree with the result of that of Formeloza and Patena 2013 as it also surfaced in their study the item on resources and journals in the specific field of discipline is limited. In the University of Bohol, this needs careful attention also. Pertaining to the budget allocation, the University Research Center has the recommending capacity to pass such requests. However, those are still subject to availability of funds and need careful deliberation. The positive output of these research data are produced to lobby the gaps for faculty to research capacity that leads towards research productivity.

As to the level of difficulty encountered in research writing, the aggregate mean is 3.16 which is moderately difficult (Table 9). Fifteen indicators were listed under this and the top six difficulties rated as very difficult are as follows: *"I need fast internet access for information sources"* (3.53), I need financial assistance (3.47), *"I need equipment and facilities for doing my research"* (3.45), *"I need good library sources as reference materials in conducting my study"* (3.39), *"I need time in carrying out research due to teaching load"* (3.36), and *"I need a good research atmosphere in the University"* (3.29).

Table 6. Level of Support on the Provision of Facilities and Resources as Perceived by the Respondents

Indicators	Weighted Mean	Interpretation	Rank
Consultation services of adviser (Deans re URC and GS, staff)	2.77	Moderately Supportive	1
Service of Statistician	2.7	Moderately Supportive	2
Journals, books and other materials	2.68	Moderately Supportive	3
Service of editor/grammarian	2.6	Moderately Supportive	4
Publications of college/institutional research journals	2.59	Moderately Supportive	5
Service of referee/reader	2.58	Moderately Supportive	6.5
Computer units for research	2.58	Moderately Supportive	6.5
Training area for in-house/small seminars	2.52	Moderately Supportive	8
Installed e-journals (i.e. Academic One-File, etc)	2.51	Moderately Supportive	9.5
Internet access	2.51	Moderately Supportive	9.5
Laboratories for experiment	2.5	Moderately Supportive	11
Budget for research	2.45	Slightly Supportive	12
Budget for writing a research	2.4	Slightly Supportive	13
Budget for seminars	2.45	Slightly Supportive	14
IP training in research	2.36	Slightly Supportive	15
Aggregate Mean	***2.55***	***Moderately Supportive***	

Parameters			
Mean Range		**Interpretation**	
3.25	-	4.00	Very Supportive
2.50	-	3.24	Moderately Supportive
1.75	-	2.49	Slightly Supportive
1.00	-	1.74	Less Supportive

Level of Difficulty Encountered in Research Writing

As to the level of difficulty encountered in research writing, the aggregate mean is 3.16 which is moderately difficult (Table 7). Fifteen indicators were listed under this and the top six difficulties rated as very difficult are as follows: *"I need fast internet access for information sources"* (3.53), I need financial assistance (3.47), *"I need equipment and facilities for doing my research"* (3.45), *"I need good library sources as reference*

materials in conducting my study" (3.39), *"I need time in carrying out research due to teaching load"* (3.36), and *"I need a good research atmosphere in the University"* (3.29).

Table 7. Level of Difficulty Encountered in Research Writing

Indicators	Weighted Mean	Interpretation	Rank
I need fast internet access for information sources	3.53	Very Difficult	1
I need financial assistance	3.47	Very Difficult	2
I need equipment and facilities in doing my research	3.45	Very Difficult	3
I need good library sources as reference materials in conducting my study	3.39	Very Difficult	4
I need time to carryout research due to teaching loads assignments	3.36	Very Difficult	5
I need a good research atmosphere in the University	3.29	Very Difficult	6
I lack time for research works	3.22	Moderately Difficult	7
I need encouragement fro the administrators to carry out research works	3.21	Moderately Difficult	8
I need support from colleagues	3.19	Moderately Difficult	9
I lack knowledge in journal publication	3.04	Moderately Difficult	10
I lack knowledge in statistical techniques	3.01	Moderately Difficult	11
I lack knowledge in research ethics	2.89	Moderately Difficult	12.5
I need a student assistant for encoding the manuscript	2.89	Moderately Difficult	12.5
I lack knowledge in research methodology	2.77	Moderately Difficult	14
I lack self-interest in carrying out research	2.66	Moderately Difficult	15
Aggregate Mean	**3.16**	**Moderately Difficult**	

Research Productivity among the Respondents in the Aspects of Publication

When research productivity was examined under four contexts: Publication, Authorship, Publication Outlet, and ISI Journal, the productivity is relatively low. The vast majority did not publish. In the context of publication, only one out of ten of teacher respondents got published or accepted for publication. Of those 10 percent who published, the majority went for co-authorship (68.42%) while less than a fifth or only three were sole authors. For those who published, the majority (66.67%) of the outlets are journals only while five or slightly more than a quarter (27.76) published in both journals and conference proceedings. Only three teacher respondents published in ISI Journal.

Table 8. Research Productivity among the Respondents

in the Context of Publication:			
	f	**Percentage**	**Rank**
Not published or n ot accepted	171	81.43	1
Published or accepted for publication	21	10	2
	18	8.57	3
in the context of authorship:			
	f	**Percentage**	**Rank**
Co-authorship only	13	68.42	1
Sole authorship only	3	15.79	2.5
both sole and co-authorship	3	15.79	2.5
in the Context of Publication Outlet:			
	f	**Percentage**	**Rank**
journals only	12	66.67	1
both journals and conferences	5	27.78	2
Conference proceedings only	1	5.56	3
in the Context of ISI Journal:			
	f	**Percentage**	**Rank**
No response	184	87.62	1
not published in ISI journal	23	10.95	2
Published in ISI journal	3	1.43	3

As to the purpose of this particular study, the productivity of research is defined as the authorship of research articles that had been published or accepted for publication either by peer-reviewed journals or conferences, or both. Although other forms of scholarly productivity, to mention, authorship of books and presentations of conferences. However, this definition used in this study has been tested and used by other research endeavors (Hadjinicola & Soteriou, 2006). The ISI was utilized as a measure since it is an accepted fact as one of the most international criterion or benchmark for a measure in research productivity among universities all over the world (Asadi & Shekofteh, 2009).

Significant Degree of Relationship between the Profile of the Respondents and Research Capability

Table 9 shows the test of the relationship between the profile of the respondents and research capability at 0.05 level of significance. The results revealed that age (χ^2 = 918, *p*=.000), sex (χ^2 = 942.80, *p*=.000), civil status (χ^2 = 943.70, *p*=.000), highest educational attainment (χ^2 = 994.90, *p*=.000), number of years in teaching (χ^2 = 934.10, *p*=.000) and department assignment (χ^2 = 1042, *p*=.000) have **significant relationship** with the respondents' research capability. Thus, the test led to the **rejection of the null hypothesis**. This implies that the profile of the respondents has something to do with their research capability.

Table 9. Test of Relationship between the Profile of the Respondents and their Research Capability

Research Capability and…	Com. Chi-Square value	df	p-value	Sig.Level	Result	Ho
Age	918.00	24	0.00	0.05	Significant	Rejected
Sex	924.80	20	0.00	0.05	Significant	Rejected
Civil Status	943.70	28	0.00	0.05	Significant	Rejected
Highest Educational Attainment	994.90	56	0.00	0.05	Significant	Rejected
Number of Years in Teaching	934.10	24	0.00	0.05	Significant	Rejected
College Assignment	1042.00	76	0.00	0.05	Significant	Rejected

Ho: There is no significant relationship between profile of respondents and their research capabilities.

Significant Degree of Relationship between the Profile of the Respondents and Research Support

Table 10 shows the test of the relationship between the profile of the respondents and research support at 0.05 level of significance. The results revealed that age (χ^2 = 992, *p*=.000), sex (χ^2 = 900.40, *p*=.000), civil status (χ^2 = 961.30, *p*=.000), highest educational attainment (χ^2 = 1028), number of years in teaching (χ^2 = 1049, *p*=.000) and departmental assignment (χ^2 = 1053, *p*=.000) have **significant relationship** with the level of research support perceived by the respondents. Thus, the test led to the **rejection of the null hypothesis**. This implies that the profile of the respondents is related to their perception of the degree of research support.

Table 10. Test of Relationship between the Profile of the Respondents and Level of Research Support

Research Support and…	Comp. Chi-square value	df	p-value	Sig. Level	Result	Ho
Age	992.00	24	0.00	0.05	Significant	Rejected
Sex	900.40	20	0.00	0.05	Significant	Rejected
Civil Status	961.30	28	0.00	0.05	Significant	Rejected
Highest Educational Attainment	1028.00	56	0.00	0.05	Significant	Rejected
Number of Years in Teaching	1049.00	64	0.00	0.05	Significant	Rejected
College Assignment	1053.00	76	0.00	0.05	Significant	Rejected

Ho: There is no significant relationship between the profile of the respondents and research support

Significant Degree of Variance on Research Capability when Respondents are Grouped according to Departmental Assignment

Table 12 explains the analysis of variance on the research capability when respondents are grouped according to the departmental assignment. At 0.05 level of significance, p-value of 0.853 which yielded the failure to reject **null hypothesis**. This means that there is an **insignificant** degree of variances on the research capability of the respondents when grouped according to the departmental assignment.

Table 12. Analysis of Variance on the Research Capability when Respondents are Grouped according to College Assignment

ANOVA Summary								
Source of Variation	Sum of Squares	df	Mean Square	F	p-value	Significant Level	Result	Ho
Between Groups	7.295	17	0.429	0.644	0.853	0.05	Insig-nificant	Failed to reject
Within Groups	112.005	168	0.667					
Total	119.3	185						

Ho: There is no significant degree of variance on the research capability when respondents are grouped according to college assignment

Significant Degree of Variance on Research Support when Respondents are Grouped according to Departmental Assignment

Table 13 explains the analysis of variance on the research support when respondents are grouped according to the departmental assignment. At 0.05 level of significance, p-value of 0.581, that resulted to the failure to reject the **null hypothesis**. This means that there is an **insignificant** degree of variances on the level of research support perceived by the respondents when grouped according to the departmental assignment.

Table 13. Analysis of Variance on the Level of Support when Respondents are Grouped According to College Assignment

ANOVA Summary								
Source of Variation	Sum of Squares	df	Mean Square	F	p-value	Sig. Level	Result	Ho
Between Groups	9.004	17	0.53	0.895	0.581	0.05	Insignifi-cant	Failed to reject
Within Groups	99.436	168	0.592					
Total	108.44	185						

Ho: There is no significant degree of variance on the level of support when respondents are grouped according to college assignment.

Significant Degree of Variance on Difficulty Encountered when Respondents are Grouped according to Departmental Assignment

Table 14 explains the analysis of variance on the difficulty encountered in research writing when respondents are grouped according to the departmental assignment. At 0.05 level of significance, the p-value of 0.882. The result led to the **failure to reject the null hypothesis**. This means that there is an **insignificant** degree of variance on the level of research support perceived by the respondents when grouped according to the departmental assignment.

CONCLUSIONS

Based on the findings of the study, the following conclusions are made:

The profile of the respondents is significantly associated with their research capability and perception of the degree of research support. Furthermore, there is an **insignificant** degree of variances on the research capability of the respondents when grouped according to the departmental assignment. There is an **insignificant** degree of variances on the level of research support perceived by the respondents when grouped according to the departmental assignment.

RECOMMENDATIONS

Based on the findings and conclusions, the following recommendations are offered:

1. Address the various identified weaknesses and difficulties by teacher respondents. A holistic approach to their socio-demographic characteristics and enhance their strengths in the process of addressing challenges through:
    1.1 Creation a modular research programme that can be accredited as units in the Graduate School and Professional Studies (GSPS) as a graduate program to enable those who have MA units to complete their Masters' degree and encourage the undergraduate degree holders to pursue graduate studies. This programme can also be designed as short term courses, heavy on hands-on or practical application of theories and concepts.

1.2 Skills will be taught to make teacher respondents confident in their research capability.

The following skills will be taken with closer consideration:

- Introduction - Formulating theoretical/conceptual paradigm -Conceptualizing research literature
- Methods - Statistical treatment - Develop research design - Sampling/sample framework Results and Discussion - Correlate literature to affirm results
- Conclusion and Recommendation - Synthesizing results. In terms of other parts of the research paper, guidance on how to clearly state the research focus and summarize the research methods used will be given attention in the sills building.

2. Create an enabling environment for research to thrive and for teachers to be encouraged to pursue research that will be spearheaded by the top-management of the University.
   2.1 Providing support in the form of research facilities and resources is an arena that can truly address this issue. The three areas identified that needed support are all related to budget allocation and they as follows: - Budget for writing research - Budget for research - Budget for seminars Where you put your money, there lies an organization's priority The top five difficulties identified by teacher respondents in research writing are: - Access to Internet for information sources - Access to equipment and facilities to be able to conduct research - Good library sources as reference materials in conducting - Enough time due to teaching load assignment - [ ] Access to financial assistance
3. Beef up the library collection in the specific fields/courses and programs offered by the university. By doing so teachers will be encouraged to conduct research with the availability of resources in their relevant fields of specialization. Online materials should be provided that connects the University of Bohol to top 50 research universities in the world.
4. Concretize the provision of incentive in terms of financial support to those who are already in the writing stage of their research work. The

University top management should revise the research incentive policy which will be spearheaded by the University Research Center, the Vice-Presidents for Academics and Administration. This avenue would respond to the findings that approximately eight out of ten teachers have not published. Papers submitted for publication are not accepted. This is low for a university with a mandate to teach to conduct research and undertake extension activities. Moreover, with the university's projected outcome of propagating the culture of research to its overall strategic direction.

Concretize the provision of incentive in terms of financial support to those who are already in the writing stage of their research work. The University top management should revise the research incentive policy which will be spearheaded by the University Research Center, the Vice-Presidents for Academics and Administration. This avenue would respond to the findings that approximately eight out of ten teachers have not published. Papers submitted for publication are not accepted. This is low for a university with a mandate to teach to conduct research and undertake extension activities. Moreover, with the university's projected outcome of propagating the culture of research to its overall strategic direction.

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