

# RESEARCH MOTIVATION, ENGAGEMENT, AND PRODUCTIVITY OF COLLEGE INSTRUCTORS, UNIVERSITY OF BOHOL, CITY OF TAGBILARAN

EMMA SANAG-RULONA<sup>1</sup> 

College of Liberal Arts, University of Bohol,  
Tagbilaran City, Philippines

*Corresponding Author: [esrulona@universityofbohol.com](mailto:esrulona@universityofbohol.com)*

## ABSTRACT

### *Article History*

Submission: November 19, 2022

Revised: May 10, 2023

Accepted: August 5, 2023

Publication: September 2023

**Keywords**— research productivity, research motivation, research engagement, quantitative-correlational, University of Bohol

Research productivity in higher education institutions plays a vital role in achieving the goals of the institution. These institutions consider the teaching faculty as the primary producers of research in a university. Thus, it would be beneficial for the institution to find out the teaching faculty's motivation to engage in academic research and determine the factors influencing their research productivity to enhance the institution's efforts in cultivating quality and quantity research outputs. The study aims to investigate the research motivation, engagement, and research productivity of the college instructors at the University of Bohol. The researcher utilized a quantitative descriptive method using a researcher-made tool in which items were based on an intensive reading of theories, studies, and related literature. The tool



© Jonna Rose D. Naquila (2023). Open Access. This article published by University of Bohol Multidisciplinary Research Journal is licensed under a Creative Commons Attribution-Noncommercial 4.0 International (CC BY-NC 4.0). You are free to share (copy and redistribute the material in any medium or format) and adapt (remix, transform, and build upon the material). Under the following terms, you must give appropriate credit, provide a link to the license, and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use. You may not use the material for commercial purposes. To view a copy of this license, visit: <https://creativecommons.org/licenses/by-nc/4.0/>

underwent pretesting and possessed a high-reliability value based on its computed Cronbach  $\alpha$  of .895. The respondents of the study were regular college instructors at the University of Bohol. The respondent's profile, level of intrinsic and extrinsic motivation, level of research engagement, and status on research productivity were subjected to statistical treatment for analyses. The results show that respondents have higher intrinsic than extrinsic motivation. In addition, educational attainment was a consistent variable that significantly relates to the respondents' research motivation, engagement, and productivity. The result implies that the level of research motivation, engagement, and research productivity level is dependent on one's educational attainment. On the other hand, the factors that hindered the research engagement of the respondents were a lack of administration support and a full teaching load. Moreover, research productivity was positively correlated to research motivation and engagement. It implies that as a teacher's level of motivation and engagement increases, the production of research output also tends to increase.

## INTRODUCTION

Teacher engagement in research plays a crucial role in furthering the field of education and enhancing teaching practices. Factors that contribute to research engagement have consistently been evidenced by the members of the faculty in higher education institutions (HEIs) seeing research as part of their responsibilities. In direct contrast, universities in developing countries have retained active teaching functions but weak research functions (Clemena and Acosta, 2016).

The Philippines, aside from being a developing country, is facing an era of rapid changes and is being confronted by a dynamic array of economic, social, global, and technological forces. It is essential for the country to strengthen its contribution and engagement in the knowledge-based global economy. For this to be possible, the Philippines must enable its higher education institutions to optimally participate in national transformation through the production and transfer of knowledge (CMO No. 52 S. 2016).

However, the British Council and the Foreign and Commonwealth Office (2015) revealed that the Philippines' research capability is the lowest among the five selected ASEAN countries. In addition, the country's research output is low compared to that of ASEAN peer countries. To solve this dearth of research capability, the Philippines Commission on Higher Education (CHED) has been vigorously pushing for a stronger research orientation among HEIs (Clemena & Acosta 2016). The National Higher Education Research Agenda (NHERA), formulated in 1996, clearly articulates the goals of higher education research and the mechanics and concrete steps for achieving these goals. CHED has likewise established 12 Zonal Research Centers (ZRC) in the country to further promote and encourage research

engagement and productivity in the 1,605 public and private HEIs (Sanyal and Varghese, 2006).

In university institutions, the faculty members are considered the primary producers of research. To improve the faculty's research capabilities, their voices must be heard so the institution can push for an impressive contribution to the dialectic of research culture. It would be helpful to find out their research efficacy and motivation to engage in research and factors that influence their research productivity to enhance the institution's efforts in cultivating quality and quantity research outputs. In view of these concerns, this study aims to determine the relationship between research productivity, engagement, and research motivation in order to improve the efficiency of the implementation of the Faculty Research Development Program of the university.

**Related Literature.** Research capabilities of teachers is cemented on five theories which are the following: self-efficacy theory, self-determination theory of motivation, motivation theory, equity theory, and expectancy theory.

Albert Bandura's Self-Efficacy Theory (1977) said self-efficacy is the belief in one's capability to achieve a goal. It tells us that people generally will only attempt things they think they can accomplish and would not attempt things they believe will fail. In research, only individuals who display a sense of efficacy can set this challenging academic goal and stay committed to it, so even during failure, they manage to increase their efforts and ultimately complete research and publication. On the other hand, people who doubt their capability have difficulty accomplishing research and even perceive it as threatening.

According to Deci and Ryan's Self-Determination Theory (SDT) of motivation emphasizes that people can wholeheartedly find motivation and satisfaction performing tasks even without the reinforcement of rewards. The theory postulates that when these three innate psychological needs, namely: competence, autonomy, and relatedness are satisfied, there is an enhanced intrinsic motivation and well-being. This theory suggests that faculty members will be motivated to engage in research if the university will foster an environment that promotes an environment that supports faculty members' well-being and job satisfaction and intrinsic motivation.

Abraham Maslow's (1970) hierarchy of needs theorizes that individuals have a hierarchy of needs and that individuals must satisfy their basic physiological needs before they can move on to fulfilling their higher-level needs. Thus, when the work is appropriately designed, and the worker is adequately recognized and rewarded for his accomplishments, self-esteem or self-actualizations met (Bland, C.J., Center, B. A., Risbey, K. R., & Staples, J.G., 2005). Maslow's hierarchy of needs suggests that faculty members may have found satisfaction on their lower-level needs through their employment and may find motivation to engage in research to satisfy their higher-level needs of recognition, accomplishment, and self-growth.

Moreover, equity theory proposes that people are motivated when

their work, effort, skills, and time are treated fairly and justly compared to the work of others. If people believe that their reward is lower compared to another's ratio, then inequity is perceived and thus cause dissatisfaction (Adams, 1965). If the faculty will perceive that their research inputs receive equitable rewards like recognition, rewards, or tenure, the motivation to engage further research will increase. However, if they perceive they are not receiving equitable treatment, then they will disengage in research.

Lastly, the expectancy theory is one of the most promising conceptualizations of individual motivation (Ferris, 1997). Expectancy theory is a cognitive explanation of human behavior that continuously evaluate the outcomes of people's practice and assess the likelihood that each of their possible actions will lead to various results. Conversely, individuals are motivated to engage in activities if such will lead to performance, and their performance will lead to rewards they value. In other words, the faculty will engage in research when they believe their efforts will lead to outcomes and such outcome is personally valuable to them.

The idea of teacher research, as highlighted by Nunan (1989), has transformed the concept of teachers. Their role as researchers has gained prominence due to the significant impact of research activities on enhancing teaching practices, fostering educational innovations, and developing school-based curricula (Carr and Kemmis, 1985). Teacher research is now recognized as a vital component of professional development representing a culmination of their growth and expertise in the field.

**Related Studies.** The concept of "motivation" plays a crucial role in driving individuals to achieve their goals (James, 2011). In order for organizations to meet expectations, it is essential to understand the motivation of employees. Psychologists have differentiated between the two types of motivation: intrinsic and extrinsic. Intrinsic motivation is driven by internal factors that stimulate individuals to engage in specific behaviors. It is similar to a person's desire to work diligently simply for the joy of accomplishing a task (Zhang, 2014). Intrinsic motivation arises from an individual's need for competence and self-determination independent of any external rewards. Mallaiah and Yadapadithaya (2009) emphasized the importance of intrinsic motivation, which can be nurtured through factors such as public recognition, compliments, and professional growth opportunities.

Extrinsic motivation, in contrast to intrinsic motivation, stems from external factors that drive behavior. According to Ryan and Deci (2000), it involves seeking a separate outcome or reward that is distinct from the activity itself. Extrinsic motivation acts as an incentive for individuals to complete tasks in order to receive the desired reward. Extrinsic motivation can be enhanced by rewards such as money, promotion, and tenure. Financial reward is the oldest, most fundamental motivator. Promotion as an extrinsic motivation leads to bigger salaries, higher social status, and more respect from colleagues and students (Zhang, 2014). Hence, promotion, together with tenure, are

potent motivators of staff research productivity.

Research engagement is a highly valued outcome for academic staff in higher education institutions globally (Cummings & Shin, 2015). In universities, research productivity is measured based on the number of articles published in internationally refereed journals and conference presentations, as these serve as primary channels for disseminating research and development endeavors among researchers. Consequently, publishing a paper is often considered a significant marker of success in advancing the frontiers of knowledge (Nguyen & Klopper, 2014).

Faculty research productivity is typically evaluated on the number of publications in academic refereed journals and scholarly books (Denton et al., 1986). Several factors have been identified by Bensimon et al. (2000) that can hinder productivity which includes a lack of research skills acquired during graduate school, conflicting priorities such as heavy teaching loads and service commitments, and inadequate organizational support. On the other hand, Cargloe and Bublitz (2004) have highlighted various factors that influence research productivity, namely: 1) self-efficacy; 2) research support; 3) the allocation of working time to research activities; 4) departmental size; and 5) organizational culture.

In their study on developing research culture in Philippine Higher Education Institutions, Clemena and Acosta (2016) identified several factors perceived faculty as crucial for improving research productivity. The factors include the following: (1) time, which means allowing faculty members to focus on their research pursuits with less workload pressures; (2) belief in research activity, which means fostering a positive attitude towards research; (3) faculty involvement, which includes collaborations, interdisciplinary projects and networking; (4) positive group climate, which includes favorable access to research resources, facilities, and equipment; (5) decentralized research policy, which encourages autonomy, flexibility, and initiative in pursuing research goals; (6) research funding, which is viewed as crucial for enabling faculty members to conduct high-quality research; and (7) clear institutional policy for research benefits and incentives, such as recognition, rewards, promotion criteria, and career advancement opportunities.

Pilongo (2020) examined respondents' research capability among the faculty members of the University of Bohol and found that they demonstrated a **moderate level of competence**, particularly in the technical aspects and key sections of a research paper. While they rated themselves as **capable** in most areas, their self-assessed proficiency in referencing was **moderately capable**. Respondents rated research writing as moderately difficult. The study further revealed a **significant relationship** between research capability and age ( $r = .918$ ,  $p = .000$ ), as well as other demographic variables, including **sex, civil status, highest educational attainment, years of teaching experience, and college assignment**. Similarly, respondents' perception of institutional support for research was significantly associated with these demographic factors.

However, the study found **no significant difference** in research capability ( $F = 0.644$ ,  $p = .853$ ) or in the level of research assistance received ( $F = 0.895$ ,  $p = .581$ ) when respondents were categorized by their departmental assignment. These findings suggest that while demographic factors have a bearing on research capability and perceived support, departmental affiliation does not contribute to significant variations in these aspects.

This study aims to determine the respondents' levels of research productivity, engagement, and motivation and explore their relationship to each. Additionally, it aims to investigate how respondents' profiles may be related to their levels of research productivity, engagement, and motivation.

## RESEARCH METHODOLOGY

The researcher uses a quantitative descriptive survey method to assess the respondents' level of research motivation, engagement, and research productivity. A researcher-made questionnaire was developed and employed for data collection. The questionnaire underwent pilot testing and was evaluated for reliability through a Cronbach's alpha test. The resulting Cronbach's alpha coefficient of .895 indicates good reliability.

The tool consists of four parts. Part I focuses on gathering the respondents' profile information, including age, sex, civil status, highest educational status, number of years teaching, and department/college assignment. Part II assesses the level of research motivation, encompassing both intrinsic and extrinsic motivation for engaging in research. Part III explores the level of research engagement across six dimensions: research efficacy, administration support, teaching load, teacher attitude, research culture, and family support. Part IV examines the level of research productivity among the respondents determined by the following points: proposal (1 point), unpublished paper (2 points), research presentation (3 points), peer-reviewed (4 points), published paper (4 points), and utilization of research output (5 points).

The study included the teaching staff/faculty members with regular status from the 11 colleges/departments of the University of Bohol. Random sampling was employed to ensure the participation of all regular faculty members. Prior to data gathering, the study underwent ethical review by the Research Ethics Committee Board. The head of the Research Ethics Committee issued a certification. The researcher distributed the questionnaire to the respondents providing a clear explanation of its purpose. Informed consent was obtained from the respondents. The gathered data was then computed, tabulated, analyzed, and interpreted to form conclusions and recommendations.

The researcher utilizes various statistical tools, including weighted and composite means, chi-square test, Pearson  $r$ , and  $t$ -statistic

The figure below shows the Likert Scale used for assessing Research Motivation and Research Engagement, along with its description and its interpretation.

## Level of Research Motivation and Research Engagement

Scale	Response Category	Description	Interpretation
3.25-4.00	Strongly Agree (STA)	Fully in agreement with the stated item.	Very High
2.50-3.24	Moderately Agree (MA)	Partially in agreement on the stated item.	High
1.75-2.49	Slightly Agree (SLA)	Slightly in agreement with the stated item.	Low
1.0-1.74	Disagree	In disagreement with the stated item.	Very Low

## Research Productivity Point System

Interpretation	Research Proposal	Defended/ Unpublished	Research Presentation	Peer-reviewed	Published	Utilization	Total Points
Very High Productivity	5 – 6 points	7 – 11 points	17 – 27 points	9 – 12 points	5 – 8 points	5 – 6 points	41 – 60 points
High Productivity	3 – 4	4 – 6	9 – 16	5 – 8	3 – 4	3 – 4	21 – 40
Low Productivity	1 – 2	1 – 3	1 – 8	1 – 4	1 – 2	1 – 2	1 – 20

## RESULTS AND DISCUSSION

The predominant age category among the 104 respondents was 41–50, comprising 30 individuals, or 28.85% of the total. A considerable proportion of the respondents were married ( $n = 64$ , 61.54%) and designated as female ( $n = 70$ , 67.31%). A total of 25 respondents, constituting 24.04%, hold either a master's or doctoral degree, thereby indicating their level of educational achievement. Among the respondents, 26.92% ( $n = 28$ ) were affiliated with the College of Arts and Sciences, and the predominant duration of teaching experience was three to five years ( $n = 28$ ).

The study's assessment of respondents' intrinsic motivation yielded a composite mean of 2.91, which indicates a high level of motivation. This result implies that participants saw research as a chance to advance their careers as well as a professional obligation. Additionally, it is believed that research initiatives significantly contribute to the expansion of higher education in the Philippines.

Extrinsic motivation, on the other hand, had a lower rating (composite mean of 2.28), indicating that external incentives and rewards have a weaker influence on participation in research activities. The aggregate composite mean of 2.58 indicates that respondents are highly motivated to conduct research.



This demonstrates that intrinsic variables have a higher influence than external elements in promoting academic participation.

Data revealed that among the six dimensions of research engagement, the top two ranks are Research Efficacy and Teacher Attitude, with a composite means of 2.93 and 2.85, respectively, both interpreted as **High Engagement**. On the other hand, the bottom ranks are Teaching Load and Administration Support, with a composite means of 2.48 and 2.20, respectively, which are interpreted as **Low Engagement**. Overall, the respondents have a high research engagement with a composite mean of 2.65

**Research Productivity Status of College Instructors.** The study examined the research productivity of college instructors across various scholarly activities, including research proposal development, defended/unpublished papers, research presentations, peer-reviewed publications, published papers, and research output utilization.

**Research Proposal.** Among the respondents, 56 instructors (53.85%) scored between 0 and 2 points, categorized as Low Productivity, making it the most common level of engagement. In contrast, two respondents (1.92%) achieved a score within Category A (Very High Productivity), highlighting a slight but notable group with exceptional research output.

**Defended/Unpublished Papers.** A significant portion of respondents, 42 instructors (40.38%), fell into Category C (Low Productivity), followed by 31 respondents (29.81%) who scored between 4–6 points, indicating Moderate Productivity. Notably, only three respondents (2.88%) scored within the Very High Productivity range (7–11 points), emphasizing a limited number of instructors who complete and defend their research.

**Research Presentations.** The majority of instructors, 61 respondents (58.65%), were categorized under Category D (Very Low Productivity). Only two faculty members (1.92%) achieved Very High Productivity (17–27 points), suggesting that conference participation and scholarly dissemination remain a challenge for many instructors.

**Peer-Reviewed Publications.** A substantial 86 respondents (82.69%) were classified under Category D (Very Low Productivity), indicating minimal engagement in publishing peer-reviewed research. In contrast, only three respondents (2.88%) attained Very High Productivity, highlighting the need for more substantial institutional support for faculty research publication efforts.

**Published Papers.** Similarly, 91 instructors (87.50%) fell under Category D (Very Low Productivity), demonstrating that formal research dissemination through journal publication is significantly limited. A small fraction of the respondents (2.88%) achieved 5–8 points and were categorized as high productivity.

**Utilization of Research Output.** Findings revealed that 95 respondents (91.35%) were in Category D (Very Low Productivity), indicating a substantial gap in applying research findings for institutional or societal impact. However,



nine respondents (8.65%) ranked in Category A (Very High Productivity), showcasing exemplary research utilization.

**Overall Research Productivity.** The mean research productivity score among respondents was 8.44 points, classified as Low Productivity. Out of 104 college instructors, only 36 respondents (34.62%) scored above the mean, while the majority, 68 respondents (65.38%), scored below the mean, suggesting widespread challenges in research engagement and output.

These findings emphasize the importance of strengthening research culture within higher education institutions (HEIs) in the Philippines. The results align with CHED Memorandum Order No. 52, Series of 2016, which underscores the role of research in national transformation and knowledge production. Furthermore, Cummings and Shin (2015) highlight that faculty members in higher education institutions worldwide should prioritize research engagement and productivity. Addressing the barriers to research productivity through institutional support, capacity-building programs, and funding opportunities remains a critical step in enhancing the academic contributions of college instructors.

**Relationship Between Respondents' Profile and Research Motivation Level.** The findings indicate that there is no significant correlation between age and research motivation,  $r = -.183$ ,  $n = 104$ ,  $p > .05$ . This finding suggests that respondents' age has no bearing on their levels of research desire, which prevents the null hypothesis from being rejected (See Table 1).

A notable correlation was found between sex and the level of motivation for research,  $\chi^2(3, n = 104) = 9.69$ ,  $p < .05$ . This finding indicates that motivation for research is influenced by sex, given that the null hypothesis was rejected.

For civil status, the relationship with research motivation was not significant,  $\chi^2(9, n = 104) = 8.98$ ,  $p > .05$ . Consequently, the null hypothesis was not rejected, implying that research motivation levels are independent of civil status.

A statistically significant relationship was found between the highest educational attainment (HEA) and research motivation level,  $\chi^2(18, n = 104) = 29.50$ ,  $p < .05$ , resulting in the rejection of the null hypothesis. The findings indicate that respondents with higher educational attainment, such as master's or doctoral degree holders, exhibit higher research motivation levels.

Teaching experience did not significantly correlate with research motivation ( $r = -.169$ ,  $n = 104$ ,  $p > .05$ ). This finding implies that teaching expertise has little effect on research interest levels, resulting in a failure to reject the null hypothesis.

Finally, department affiliation had no significant link with research desire ( $\chi^2(30, n = 104) = 41.26$ ,  $p > .05$ ). This result implies that research motivation levels are independent of the respondents' department, verifying the null hypothesis.

**Table 1.** *Relationship Between Respondents’ Profile and Research Motivation Level*

Profile Variable	Test Statistic	p-value	Interpretation	Decision
Age	$r = -.183$	.063	Not Significant	Fail to Reject $H_0$
Sex	$\chi^2(3) = 9.69$	.021	Significant	Reject $H_0$
Civil Status	$\chi^2(9) = 8.98$	.439	Not Significant	Fail to Reject $H_0$
Highest Educational Attainment (HEA)	$\chi^2(18) = 29.50$	.043	Significant	Reject $H_0$
Years of Teaching Experience	$r = -.169$	.085	Not Significant	Fail to Reject $H_0$
Department Affiliation	$\chi^2(30) = 41.26$	.083	Not Significant	Fail to Reject $H_0$

These findings shed light on the demographic features that influence research motivation levels, underlining the critical roles that gender and educational attainment play in shaping motivation. On the other hand, age, civil status, teaching experience, and department affiliation do not significantly affect motivation.

**Relationship Between Respondents’ Profile and Level of Research Engagement.** Table 2 illustrates a relationship between the respondents’ profiles and their level of engagement in research activities. The study employed Pearson’s correlation coefficient ( $r$ ) for continuous variables and chi-square ( $X^2$ ) tests for categorical variables. The findings showed that there was no statistically significant correlation between age and the degree of involvement in research ( $r = -0.069, n = 104, p > .05$ ), between sex and research involvement, ( $X^2(3, n = 104) = 7.64, p > .05$ ), civil status with research engagement ( $X^2(9, n = 104) = 7.87, p > .05$ ), teaching experience and the level of engagement in research activities ( $r = 0.061, n = 104, p > .05$ ), between department affiliation and the level of research engagement ( $X^2(30, n = 104) = 35.08, p > .05$ ).

**Table 2.** *Relationship Between Respondents’ Profile and Level of Research Engagement (N = 104)*

Profile	Test Statistic	Computed Value	p-value	Result	Decision
Age	Pearson’s $r$	-0.069	.487	Not Significant	Fail to Reject $H_0$
Sex	Chi-Square ( $X^2$ )	7.64	.054	Not Significant	Fail to Reject $H_0$
Civil Status	Chi-Square ( $X^2$ )	7.87	.548	Not Significant	Fail to Reject $H_0$
Highest Educational Attainment	Chi-Square ( $X^2$ )	51.03	.000	Significant	Reject $H_0$
Years of Teaching	Pearson’s $r$	0.061	.539	Not Significant	Fail to Reject $H_0$
Department Connected	Chi-Square ( $X^2$ )	35.08	.240	Not Significant	Fail to Reject $H_0$

A notable correlation was found between educational attainment and involvement in research,  $X^2(18, n = 104) = 51.03, p < .05$ . This result indicates that higher education level respondents show greater engagement in research activities. This finding agrees with the result of the study by Nguyen and Klopper (2014), which emphasizes the role of postgraduate education in providing opportunities for research engagement and fostering a scholarly mindset among academics. The findings indicate that the educational attainment of the respondents is correlated with their research engagement.

**Relationship between profile and research capability.** Table 3 presents the significant relationship between profile and level of research productivity. There is no statistical relationship between age and research productivity ( $r = -.155, n=104, p > 0.05$ ), civil status and research productivity ( $\chi^2(9, n=104) = 5.59, p > 0.05$ ).

Data reveals a statistically significant relationship between sex and the status of research productivity  $\chi^2(3, n=104) = 17.12, p < 0.05$ . There is a significant degree of relationship between sex and research productivity. It indicates that sex has a bearing on the respondent's research productivity status. The previous finding contradicts the study conducted by Zang (2015), which examined the factors influencing research productivity among academic staff in Chinese projects. In Zang's study, the sex of the participants was not identified as a significant factor influencing research productivity.

**Table 3.** Relationship between Profile and Level of Research Productivity

Profile Paired to Level of Research Productivity	Computed Value	<i>p-value</i>	Results	Decisions
1. Age	$r = 0.155$	0.155	Insignificant	Failed to reject Ho
2. Sex	$X^2 = 17.12$	0.001	<b>Significant</b>	Reject Ho
3. Civil Status	$X^2 = 5.59$	0.781	Insignificant	Failed to reject Ho
4. HEA	$X^2 = 86.16$	0	<b>Significant</b>	Reject Ho
5. Years of Teaching	$r = 0.199$	0.043	<b>Significant</b>	Reject Ho
6. Department Connected	$X^2 = 72.02$	0	<b>Significant</b>	Reject Ho

The data further reveals a statistically significant relationship between educational attainment and research productivity. The computed  $\chi^2(18, n=104) = 86.16, p < 0.05$  is lower than the alpha level, thus, the null hypothesis is rejected. There is a significant degree of relationship between educational

attainment and research productivity. The findings support the study conducted by Nguyen and Klopper (2014), which proposed that postgraduate studies have a significant impact on enhancing the research productivity of academic staff as they facilitate the formation of diverse research groups. Moreover, there is substantial evidence to suggest that educational attainment plays a crucial role in determining one’s research productivity.

Data shows a statistically significant correlation between teaching experience and research productivity. The computed  $r = -.199, n=104, p > 0.05$  suggests that there is a significant positive weak correlation between years of teaching and research productivity; thus, the null hypothesis is rejected. The result shows a significant degree of relationship between respondents’ teaching experience and research productivity. It indicates that research productivity is dependent on one’s teaching experience.

**Research Motivation, research engagement, and research productivity.**

The data reveals a statistically significant relationship between department connections and research productivity. The obtained  $\chi^2(30, n=104) = 72.02, p < 0.05$  is lower than the alpha level. Therefore, it fails to reject the null hypothesis. It means that there is a significant relationship between department assignments and research productivity. Additionally, the assignment of respondents to different colleges within the institution has an influence on their research productivity.

**Table 4.** Degree of Correlation between Research Motivation, Research Engagement, and Research Productivity

Variables	Computed Value	p-value	Results	Decisions
1. Research Motivation and Research Engagement	r = 0.696	.000	Significant	Reject Ho
2. Research Motivation and Research Productivity	r = 0.372	.000	Significant	Reject Ho
3. Research Engagement and Research Productivity	r = 0.408	.000	Significant	Reject Ho

This finding indicates that financial incentives for inquiry, as a motivating factor, play a significant role in some faculty members’ transition from teaching to participation in research activities. The results indicated a moderate positive correlation between inquiry motivation and research output,  $r = .372, n = 104, p < .05$ , implying a statistically significant relationship. This finding suggests that the underlying motivation for inquiry plays a crucial role in influencing an individual’s productivity, ultimately resulting in the dismissal of the null hypothesis. Faculty members exhibiting higher levels of motivation frequently show enhanced research output, underscoring the importance of institutional support and motivational structures in elevating research productivity.

A moderate positive correlation has been identified between engagement in research and productivity in research,  $r = .408$ ,  $n = 104$ ,  $p < .05$ , leading to the rejection of the null hypothesis. This finding suggests that increased participation in research activities results in a higher level of research output. The findings correspond with the studies conducted by Kim and Choi (2017).

## CONCLUSIONS

The faculty members in the University of Bohol College department have a high level of research motivation and engagement. Faculty members in the eleven departments are intrinsically motivated to do research. However, based on the overall points obtained, they have low research productivity.

It was found that the highest educational attainment consistently surfaced to be statistically associated with research engagement, motivation, and productivity. Individuals with advanced degrees tend to exhibit a greater commitment to their research endeavors, driven by a deeper understanding of their field and a strong intrinsic motivation to contribute to knowledge. This elevated educational background not only enhances their research capabilities but also fosters a more productive and engaged research environment. Consequently, promoting higher educational attainment within research communities can lead to increased motivation and productivity, ultimately benefiting the advancement of science and innovation.

This study demonstrates a clear positive correlation between teachers' level of research engagement, their internal motivation and drive, and their overall research productivity and output. Highly engaged teachers who are intrinsically motivated by their work were found to publish more papers, secure more grants and funding, and make more significant contributions to their field compared to less engaged and motivated peers. These results highlight the importance of fostering a culture that encourages research engagement and provides opportunities for teachers to find meaning and satisfaction in their work. Institutions should prioritize initiatives that boost motivation, such as providing autonomy, opportunities for growth, and recognition of achievements. By investing in the engagement and motivation of their research workforce, organizations can unlock greater innovation, discovery, and scientific advancement.

## RECOMMENDATIONS

The administration will continue to encourage the university faculty to engage in research activities. The University of Bohol ought to continue implementing a thorough training program aimed at building research capacity to improve the research output of faculty members in the college department, even in light of the strong research motivation and engagement noted in this study. The university ought to promote the pursuit

of post-graduate courses for college instructors that align with their areas of expertise, thereby enhancing their research productivity. Additionally, the school must strengthen their administrative support for teaching employees in research activities. In addition, they must improve the school's internet connectivity and update library resources to facilitate research engagement. The school must also carefully study the incentive scheme to support teachers' involvement in research. These incentives may include money, promotion, and recognition.

Another recommendation is for the university to provide more research grants, funding opportunities, and research incentives available to teachers. Teachers must also be granted study leave with pay for them to be motivated to complete their research projects.

A thorough re-evaluation and increase must be given to the cash assistance allocated for the thesis/dissertation work to better support teachers in their research endeavours. Another recommendation is to consider deloading of teachers with two (2) subjects if they are actively engaged in research while still receiving their basic salary. To build and strengthen the research nexus, the school must establish a peer review group where college instructors can discuss their research work and provide feedback. All these recommendations must be presented to the University of Bohol Union of Employees (UBUE) officers to ensure that these are given due consideration during the crafting of the collective bargaining agreement (CBA) with the administration. Lastly, the researcher highly encourage the implementation of a faculty research development program and conduct an evaluation of its outcomes for future studies.

## REFERENCES CITED

- Adams, J. (1965). Inequity in Social Exchange', in Berkovitz, L. (Ed.) *Advances in Experimental Social Psychology*, Vol.2. London: Academic Press. <http://bit.ly/4dA37bD>
- Bandura, Albert (1977) Self-Efficacy: Toward a unifying theory of behavioral change. *Psychological Review*. <https://bitly.cx/XPQT6>
- Bensimon, E.M., Ward, K., & Sanders, K. (2000). The department chair's role in developing new faculty into teachers and scholars. Bolton: Anker <https://eric.ed.gov/?id=ED443299>
- Bland, C.J., Center, B. A., Risbey, K. R., & Staples, J. G. (2005). A Theoretical, Practical, Predictive Model of Faculty and Department Research Productivity. *Academic Medicine*, 80(3), 225-237. <https://bit.ly/2HsmSVo>

- British Council.(2015).Opportunities and challenges in the internationalization of the Philippine higher education sector (2015). British Council and Foreign Commonwealth Office, p. 26. <https://tinyurl.com/mr2cn7kh>
- Carr, W. & Kemmis, S. (1985). *Becoming Critical: Knowing Through Action Research*. Victoria: Deakin University Press.
- Clemena, R.M. & Acosta, S.(2016). *Developing Research Culture in Philippine Education Institutions: Perspective of University Faculty*. Retrieved: <https://bit.ly/2U7sIkC>
- Cummings, W.K. & Shin, J.C. (2015). *Teaching and Research in Contemporary Higher Education: Systems, Activities, and Rewards*. pp.1-12. London: Springer. <https://bitly.cx/0M0y>
- Denton, J.J., Tsai, C., & Cloud, C. (1986). Productivity of faculty in higher education institutions. *Journal of Teacher Education*, 37 (4), 12-16. <https://bitly.cx/kQXs>
- Ferris, K.R. (1977). A test of the expectancy theory as motivation in an accounting environment. *The Accounting Review*, 52(3).605-6014. <https://tinyurl.com/58yb87aa>
- James, I.J. (2011). Effective motivation of paraprofessional staff in academic libraries in Nigeria. *Library Philosophy and Practice*. ISSN 1522-0222. <https://bitly.cx/EiMW>
- Kim, K. & Choi, S.K. (2017). Influences of Creative Personality and Working Environment on the Research Productivity of Business School Faculty. *Creative Research Journal*. Vol.29. Issue 1. <https://bit.ly/2PCA6C3>
- Maslow, A.H. (1970). *Motivation and Personality*, 2<sup>nd</sup>.Ed., New York
- Nguyen, Q. & Klopper, C. (2014). The Influences of Research Environment Within a University on Research Productivity of Academic Staff- A Case Study in a Research-Oriented University in Vietnam. *International Journal of Arts and Sciences*. <https://bit.ly/2KYWN2h>
- Nunan, D. (1989). *Understanding Language Classroom*. Prentice Hall. <https://tinyurl.com/4k86fj4v>



- Pilongo, L. W. R. (2020). Research Capability, Support, and Difficulties as Viewed among Faculty Members of the University of Bohol. *University of Bohol Multidisciplinary Research Journal*, 8(1), 1-30. <https://tinyurl.com/5f8muar2>
- Ryan, R. & Deci, E. (2000). Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being. *American Psychologist Association*. Vol. 55, No. 1, 68-78. <https://tinyurl.com/3ndbk7nt>
- Sanyal, B. C. & Varghese, N. V. 2006. Research Capacity in Higher Education Sector in Developing Countries. UNESCO: Paris. <https://tinyurl.com/2zbbbydtw>
- Mallaiah, T.Y & Yadapadithaya (2009). Intrinsic Motivation of librarians in university libraries in Karnataka. *DESIDOC Journal of Library & Information Technology* 29 (3), 36. <https://tinyurl.com/yese562>
- Zhang, X. (2014). Factors that Motivate Academic Staff to Conduct Research and Influence Research Productivity in Chinese Project 211 Universities. <https://tinyurl.com/yvb2swkv>