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Determinants of Faculty Research Productivity: Inputs to the Development of the Faculty Efficacy Tool

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Abstract

Research productivity has become a critical indicator of institutional performance in higher education, both in the Philippines and globally. Since 2020, the landscape of scholarly output has been reshaped by pandemic disruptions and heightened demands for internationally recognized studies. In the Philippine context, productivity remains uneven, with a small number of higher education institutions (HEIs) contributing disproportionately to national output. Gopez et al. (2024) highlighted that research concentration is strongest among institutions with robust infrastructures, international collaborations, and publications in top-tier journals, underscoring systemic disparities where regional and resource-limited HEIs struggle to match the output of more established universities [1]. National benchmarking further revealed that the Philippines lags behind ASEAN counterparts, generating only 6,870 Scopus-indexed articles in 2022 (EDCOM II, 2024) [2]. Persistent challenges such as low funding, weak mentorship, and insufficient incentives continue to constrain faculty participation in intellectual work.

Against this backdrop, faculty researchers play a vital role in advancing academic knowledge and innovation, yet they often face significant barriers that hinder productivity and well-being. Heavy teaching loads, unclear institutional guidelines, limited funding, and inadequate recognition of research outputs exacerbate stress and burnout, limiting sustained scholarly engagement. This study sought to elucidate the interplay between personal engagement and institutional support in shaping research productivity, while examining faculty experiences, coping strategies, and opportunities for improvement.

Employing a mixed-methods approach, the study integrated qualitative and quantitative techniques to explore faculty perceptions of personal effectiveness, institutional support, challenges, and resilience. Participants included faculty members actively engaged in teaching, research, and administrative responsibilities across disciplines. Data were gathered through surveys, interviews, and focus group discussions, complemented by secondary analysis of institutional policies and research outputs. Findings revealed that confidence in research skills, motivation, and time management were central to persistence in scholarly work. Faculty with strong self-regulation and goal-setting strategies sustained engagement despite competing demands, while structured mentorship, collaborative opportunities, and balanced workload distribution emerged as decisive institutional supports.

The culmination of these insights led to the development of the Faculty Research Efficacy Measurement (FREM), a diagnostic and strategic framework designed to empower faculty to reflect on their research capabilities while guiding institutions in targeted interventions. By systematically identifying strengths and areas for growth, FREM promotes self-awareness, continuous improvement, and resilience,

contributing to enhanced research output, informed faculty development programs, and the cultivation of a high-performing academic community.

Keywords: coping mechanisms, challenges, faculty-researchers, faculty research efficacy measurement, opportunities for improvement,

INTRODUCTION

Faculty researchers often encounter multifaceted challenges that stem from balancing teaching, research, and administrative responsibilities while navigating ethical and institutional landscapes. With this regard this study would like to describe and analyze the level of perceived engagement and institutional support to research productivity; explore the challenges, coping mechanisms, and opportunities for improvement in research productivity, and lastly design and develop a faculty research efficacy tool to enhance research productivity and well-being.

Recent studies emphasize that research productivity is not solely a matter of individual competence but is deeply embedded in institutional environments. Communication gaps between faculty and institutional research policies, coupled with limited technical research writing skills, often discourage participation in research even when incentives are available (Sayao et al., 2023) [3]. Addressing these barriers and expanding incentives can inspire faculty to participate in research activities, foster a vibrant research culture, and advance knowledge within the academic community.

Despite these challenges, many faculty researchers demonstrate strong efficacy in their roles. Research self-efficacy—confidence in conducting and publishing research—is influenced by institutional support, access to resources, and opportunities for collaboration (Alcazaren & Robiños, 2022) [4]. Teaching efficacy is shaped by the balance between research and teaching duties, with faculty often integrating research into instruction to enrich student learning. Administrative efficacy, meanwhile, requires effective time management to balance organizational duties with scholarly commitments.

Resilience and adaptability remain critical to faculty success. Institutional support, access to funding, and collaborative opportunities are vital in overcoming obstacles. Ethical considerations also remain a cornerstone in maintaining integrity and ensuring responsible research practices. By fostering supportive environments, higher education institutions can enhance faculty productivity and well-being. The balance of research, teaching, and administrative duties defines the complex landscape of faculty life, and addressing these challenges through structured mentorship, recognition systems, and workload reforms can significantly improve efficacy and institutional performance (Quitoras & Abuso, 2021) [5].

Improving research output and faculty well-being is essential for advancing knowledge and sustaining academic institutions. Strong support systems—such as administrative assistance, funding access, recognition mechanisms, and advanced technology—significantly enhance productivity. Incentive mechanisms, including rewards for published work, motivate faculty to produce high-quality research. Policies encouraging interdisciplinary and international collaborations further broaden the scope and impact of research, positioning institutions to thrive in competitive academic landscapes (Palmiano, 2024) [6].

MATERIALS AND METHODS

This study employed a concurrent mixed-method design, collecting quantitative and qualitative data simultaneously to capture both contextual insights and measurable trends in faculty research productivity.

A researcher-made questionnaire, validated by experts to ensure reliability, was used alongside interviews to explore faculty challenges, coping mechanisms, and perceptions. Quantitative data were analyzed using descriptive statistics such as mean, percentages, and ranking, while qualitative responses underwent thematic analysis guided by Braun and Clarke's six-phase model. Integration occurred during analysis, where findings from both strands were triangulated to enhance interpretive validity and provide a richer understanding of faculty research dynamics. The consolidated results—highlighting themes, challenges, and potential solutions—served as the foundation for designing the Faculty Research Efficacy Measurement (FREM).

RESULTS

Objective 1: Describe and analyze the perceived level of personal engagement and institutional support for research productivity.

The CNSC faculty researchers perceived level of personal engagement indicated that they were most engaged in research output and productivity, as well as in enhancement strategies, both receiving high mean scores and top ranks. In contrast, personal and behavioral factors and mental health and well-being were perceived with moderate engagement, suggesting room for improvement in these areas. Moreover, self-perception of research skills achieved lowest rating pointing to a potential gap in confidence or competence. Overall, while faculty demonstrate strong commitment to scholarly output, their personal well-being and perceived research capabilities required targeted support to sustain long-term productivity.

Faculty members generally perceive institutional support for research productivity as moderate across all components. Organizational structures and workload management were viewed as relatively stronger supports, while access to resources, mentorship, and recognition are seen as weaker areas. This suggested that while foundational systems are in place, more targeted and empowering support mechanisms are needed to fully enhance faculty research engagement.

To conclude, faculty members showed strong engagement in research productivity and enhancement strategies, reflecting a proactive academic orientation, yet moderate scores in personal well-being, behavioral factors, and self-perceived research skills revealed vulnerabilities that could hinder sustained efficacy. At the same time, institutional support was evident but uneven—stronger in organizational structure and workload management, weaker in areas fostering long-term growth—suggesting that without balanced empowerment and capability-building, faculty research potential may remain underutilized.

Objective 2. To explore the challenges, coping mechanisms and opportunities for improvement in research productivity.

Faculty researchers at Camarines Norte State College faced a complex interplay of challenges that collectively hinder their research engagement, productivity, and well-being. The demands of juggling teaching, administrative responsibilities, and scholarly work often result in overstretched schedules and limited time for deep academic inquiry. This strain was compounded by financial and institutional constraints, including insufficient access to research funding, resources, and formal support systems. While faculty demonstrated resilience through time management and collaborative efforts, the persistent pressure to publish, absence of structured mentorship, and lack of interdisciplinary opportunities reveal systemic gaps that impede sustained scholarly growth. These interconnected issues underscore the urgent need for comprehensive institutional reforms that prioritize dedicated research time, accessible resources, and capacity-building initiatives.

A variety of adaptive coping techniques that allow them to negotiate the complex demands of academic

life. Despite the challenges of juggling teaching, administrative tasks, and research, they used systematic time management, realistic goal-setting, and strategic planning to stay productive. Financial constraints were overcome through collaborative grant writing and resource pooling, while limited institutional resources were reduced through the use of digital assets and academic networks. To handle publishing pressures, professors stress quality over quantity and use wellness activities to maintain mental health. Mentorship and peer collaboration boosted their resilience by giving direction and professional development chances. These coping mechanisms demonstrated a culture of resilience, ingenuity, and mutual support among faculty.

The opportunities for improvement in faculty research engagement highlighted the need for systemic reforms across interconnected domains. Faculty members consistently identified the lack of dedicated research time, limited funding access, inadequate infrastructure, weak collaboration networks, and absence of formal mentorship programs as barriers to sustained productivity. These areas, though distinct, form a cohesive framework where time allocation, resource provision, funding support, collaboration, and mentorship collectively determine the strength of a research culture. Addressing them holistically was essential to empower faculty, enhance scholarly output, and foster innovation.

In conclusion, faculty-researchers face a convergence of role overload, resource scarcity, and institutional gaps that constrain their research engagement, productivity, and well-being. While they exhibit resilience through time management, collaborative grant writing, resource pooling, and wellness practices, their reliance on informal coping strategies underscores the absence of structured mentorship, dedicated research time, and robust institutional support. These adaptive mechanisms highlight ingenuity and mutual support among faculty, yet they remain insufficient to sustain long-term scholarly growth without systemic reforms. Addressing barriers such as limited funding, inadequate infrastructure, weak collaboration networks, and lack of formal mentorship programs is essential to build a cohesive framework for research culture. Ultimately, empowering faculty through comprehensive institutional interventions will enhance scholarly output, strengthen innovation, and foster a more resilient and high-performing academic community.

Objective 3: Develop a faculty research efficacy tool to enhance productivity and well-being.

To address the complex challenges faced by faculty researchers at Camarines Norte State College, the Faculty Research Efficacy Measurement (FREM) was developed as a diagnostic and developmental framework. Grounded in triangulated findings from faculty-reported challenges, perceived research effectiveness, and coping mechanisms, FREM synthesized qualitative and quantitative data from interviews, surveys, and reflective inputs. It captured the lived experiences and institutional realities of faculty researchers, offering a structured approach to understanding and improving research engagement. FREM was built upon ten empirically derived domains: Research Skills and Knowledge, Access to Resources, Collaboration and Networking, Institutional Support, Motivation and Work Environment, Research Output and Impact, Challenges and Barriers, Workload and Time Management, Mental Health and Well-Being, and Personal and Behavioral Factors. These domains reflected critical aspects such as methodological competence, infrastructure gaps, peer collaboration, systemic support, morale, publication pressures, and psychological resilience. Together, they formed the backbone of FREM, guiding targeted interventions and institutional reforms to enhance faculty research efficacy.

To ensure its long-term impact, the institutionalization of FREM was recommended through integration into faculty development programs and the establishment of a dedicated research support committee. Future research should focus on validating FREM across diverse academic contexts and exploring its

effectiveness in measuring faculty productivity and well-being. Through continuous refinement, FREM can serve as a strategic tool for fostering a resilient, empowered, and research-driven academic culture
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DISCUSSION

Perceived Level of Personal Engagement and Institutional Support to Research Productivity Faculty researchers' productivity is shaped by the dynamic interplay between their personal engagement and the institutional support they receive. On the personal level, engagement reflects the confidence, motivation, and persistence that scholars bring to their work. Those who demonstrate strong self-regulation, goal-setting, and time management often sustain research activity despite competing demands from teaching and administrative responsibilities. Their sense of commitment and resilience becomes a driving force that enables them to pursue inquiry and contribute to knowledge creation even under challenging circumstances.

Institutional support, however, serves as a decisive factor in amplifying or constraining this personal engagement. When higher education institutions provide structured mentorship, collaborative opportunities, balanced workloads, and recognition of research outputs, faculty members are more likely to feel valued and motivated to sustain scholarly productivity. Conversely, limited funding, unclear guidelines, and insufficient acknowledgment of research contributions can erode morale and diminish engagement.

The relationship between these two dimensions is reciprocal: personal engagement empowers faculty to maximize available resources, while institutional support creates an enabling environment that validates and sustains individual efforts. Together, they form the foundation of a research culture where productivity is not merely the result of individual perseverance but the outcome of a supportive ecosystem. Understanding this balance highlights the need for reforms that strengthen both personal capacities and institutional mechanisms, ensuring that faculty research thrives as a collective endeavor aligned with national development goals and academic excellence.

Table 1
Perceived Level of Personal Engagement

Components	Mean	Verbal Interpretation	Rank
Personal and Behavioral Factors	3.55	Moderate	2nd
Mental Health and Well-Being	3.28	Moderate	3rd
Research Output and Productivity	3.59	High	1st
Faculty Perspectives and Enhancement Strategies	3.59	High	1st
Self-Perception of their Research Skills	3.06	Moderate	4th

Notes:
4.41 - 5.0 = Very High
3.81 - 4.40 = High
2.21 - 3.80 = Moderate
1.61 - 2.20 = Low
1.0 - 1.60 = Very Low

The Perceived Level of Personal Engagement shows that faculty researchers rated their research output and productivity and enhancement strategies, the highest (mean = 3.59, interpreted as High), indicating strong commitment to producing and improving scholarly work. In contrast, personal and behavioral factors (3.55), mental health and well-being (3.28), and self-perception of research skills (3.06) all fell within the Moderate range, highlighting vulnerabilities in confidence, wellness, and behavioral consistency. Overall, the data suggest that while faculty are highly engaged in research activities and strategic improvement, their personal well-being and self-assessed skills require greater institutional support to sustain long-term productivity and balance.

Table 2

Perceived Institutional Support to Research Productivity

Components	Mean	Verbal Interpretation	Rank
Institutional and Organizational Factors	3.58	Moderate	1st
Resource and Accessibility	2.86	Moderate	3rd
Capacity Building and Mentorship	2.63	Moderate	5th
Recognition and Incentives	2.82	Moderate	4th
Workload Management & Protected Time	3.02	Moderate	2nd

Notes:

4.41 - 5.0 = Very High
3.81 - 4.40 = High
2.21 - 3.80 = Moderate
1.61 - 2.20 = Low
1.0 - 1.60 = Very Low

In reference to table 2, the Perceived Institutional Support to Research Productivity indicates that all components were rated at a moderate level, reflecting uneven but present support across domains. Institutional and organizational factors ranked highest (mean = 3.58), suggesting that structural policies and frameworks are relatively stronger, while workload management and protected time followed (mean = 3.02), showing some recognition of balancing responsibilities. However, weaker scores in resource accessibility (2.86), recognition and incentives (2.82), and especially capacity building and mentorship (2.63, lowest rank) highlight significant gaps in areas critical for sustaining long-term faculty engagement and growth. Overall, the analysis suggests that while organizational structures exist, the lack of consistent resource provision, incentives, and mentorship undermines the full realization of faculty research potential, pointing to the need for systemic reforms that strengthen support mechanisms beyond administrative frameworks. The results revealed a clear interplay between personal engagement and institutional support in shaping faculty research productivity. On the one hand, faculty members demonstrated high levels of engagement in research output and enhancement strategies, but only moderate scores in personal and behavioral factors, mental health, and self-perceived research skills indicating vulnerabilities that could hinder sustained productivity. On the other hand, institutional support was consistently rated at a moderate level, with organizational structures and workload management perceived as relatively stronger, but mentorship, resource access, and incentive systems identified as weak points.

Taken together, these findings suggest that while faculty show commitment and resilience, their efforts are constrained by systemic gaps in institutional support. This aligns with Owan et al. (2023) [7], who found that mentorship and institutional support only translate into higher productivity when embedded in collaborative cultures, and with Gangwani et al. (2022) [8], who emphasized the role of funding and strategic planning in driving output. In the Philippine context, Palmiano (2024) similarly observed low faculty engagement despite research mandates, pointing to insufficient infrastructure and mentorship. Overall, the convergence of moderate personal engagement and uneven institutional support underscores the urgent need for reforms that strengthen mentorship, resource provision, incentives, and protected research time to cultivate a more enabling and sustainable research culture.

Challenges, Coping Mechanisms, and Opportunities for Improvement

In the evolving landscape of higher education, faculty members experienced a complex array of challenges that impact their research productivity and overall well-being. These challenges often stem from both personal and institutional domains, including time constraints, limited research skills, mental health concerns, administrative burdens, and insufficient institutional support. Despite these obstacles, faculty employ a variety of coping mechanisms—ranging from self-regulation and peer collaboration to strategic time management and professional development—to sustain their scholarly engagement. Understanding these adaptive strategies is essential not only for recognizing faculty resilience but also for identifying systemic gaps that hinder academic growth.

Table 3
Common Challenges Faced by Faculty Researchers in Conducting Research

Theme	Description	Narratives
Time Constraints	Difficulty balancing research with teaching, administrative duties, and personal responsibilities.	*"Too many teaching loads," "Compressed work week," "Using personal time for research."*
Funding Limitations	Lack of financial support and reliance on personal resources.	*"No budget," "Expenses from own pocket," "Seek external funding," "Target low budget research."*
Administrative Burden	Excessive paperwork and institutional procedures hinder research progress.	*"Too much documentation," "Difficulty in processing PRs, PO, vouchers," "Heavy admin work."*
Lack of Institutional Support	Limited encouragement, resources, and leadership from the institution.	*"No support from the school," "Need for support services," "Supportive research environment."*
Limited Access to Resources	Inadequate access to journals, databases, and research tools.	*"No access to online journals," "Publishing in open access journals."*
Skill and Capacity Gaps	Challenges in mastering research methodologies and tools.	*"Need training in research," "Hard time learning and applying statistics."*
Motivational and Emotional Strain	Emotional toll and need for resilience amid challenges.	*"No motivation," "Remotivating oneself," "Research is fun but exhausting."*

Publication Barriers	Difficulty publishing in high-impact or indexed journals.	*"Difficulty publications under social sciences," "No specific achievement aside from publishing."*
Recognition and Achievement Gaps	Limited acknowledgment or tangible outcomes from research efforts.	*"Presented research but still facing challenges," "No specific achievement."*
Ethical and Logistical Issues	Challenges in navigating ethical approvals and logistical planning.	*"Ethics approval takes too long," "Hard to coordinate with participants."*

In reference to table 3, these themes highlighted significant challenges faced by faculty researchers in conducting research. Faculty members struggled with time constraints due to heavy teaching loads and administrative duties, compounded by limited funding and the need to use personal resources for research. Administrative burdens, lack of institutional support, and restricted access to journals and tools further hinder progress, while skill gaps in methodology and statistics emphasize the need for capacity-building. Emotional strain, motivational challenges, and difficulties in publishing in indexed journals add to the complexity, alongside limited recognition of achievements and delays in ethical approvals. Collectively, these challenges reveal that faculty resilience and initiative are often undermined by systemic and structural deficiencies, underscoring the urgent need for stronger institutional support, streamlined processes, and targeted interventions to sustain research engagement and productivity.

The literature supported the convergence of systemic barriers that undermine productivity, including time constraints, funding limitations, administrative burdens, and weak institutional support. Heavy teaching loads and bureaucratic delays erode creative energy, while insufficient or delayed funding prevents ambitious projects from being realized (Hubbart, 2025 [9]; Forward Pathway, 2025 [10]). Administrative inefficiencies, such as excessive paperwork and procurement delays, divert attention from scholarly inquiry, reflecting a managerial culture that prioritizes accountability over academic freedom (Nicholls, 2021 [11]; De Silva et al., 2022[12]). Moreover, restricted access to journals and databases perpetuates knowledge inequities, limiting faculty participation in global academic discourse (Tenopir et al., 2020[13]; Pinheiro & Andersen, 2021[14]). These challenges not only reduce research quality but also negatively affect faculty well-being and morale, situating local experiences within broader global debates on governance, funding sustainability, and resource inequity.

Despite these obstacles, faculty demonstrate resilience through coping strategies such as time management, collaboration, and resource pooling. However, motivational and emotional strain remains evident, with researchers describing the paradox of research as both rewarding and exhausting (Sverdlik et al., 2020; Boone et al., 2022[15]). Publication barriers and recognition gaps further marginalize contributions, particularly in the social sciences, where systemic disadvantages hinder visibility in high-impact journals (Salager-Meyer, 2020 [16]; Castulo et al., 2025) [17]. The literature emphasizes that without adequate mentorship, recognition systems, and institutional scaffolding, faculty efforts risk stagnation (De Guzman et al., 2023[18]; Inglis et al., 2024)[19]. To address these issues, reforms must prioritize streamlined administrative processes, diversified funding sources, expanded resource access, structured capacity-building, and robust recognition mechanisms. Such interventions would foster a supportive and sustainable research culture, empowering faculty to thrive and elevating institutional credibility.

Faculty Researchers' Coping Mechanisms

Faculty researchers operate within complex academic environments marked by persistent challenges such as limited funding, administrative overload, publication pressures, and emotional strain. Despite these constraints, many demonstrate remarkable adaptability through a range of coping mechanisms that sustain their scholarly engagement and productivity. These strategies—ranging from time management and peer collaboration to mentorship seeking and emotional resilience—reflect not only individual perseverance but also the creative ways faculty navigate institutional limitations. Understanding these coping mechanisms is essential for designing responsive support systems and fostering a more enabling research culture. By examining how faculty researchers structure their time, leverage networks, adapt to resource constraints, and find meaning in community impact, institutions can better align their policies with the lived realities of academic work and promote sustainable research ecosystems.

Table 4

Faculty Researchers' Coping Mechanisms

Final Theme	Definition	Representative Narrative
Time Management and Prioritization	Faculty structure time to balance research with other duties.	*"I allocate specific hours each week for research, even if it means working weekends."*
Collaboration and Peer Support	Faculty engage with peers and networks to share workload and gain support.	*"We coordinate with colleagues to co-author papers and share data collection tasks."*
Funding Adaptation Strategies	Faculty creatively address financial constraints through personal and external means.	*"Due to limited funding, I often use free online tools and apply for small institutional grants."*
Self-Motivation and Emotional Resilience	Faculty maintain emotional strength and motivation despite challenges.	*"Despite setbacks, I stay motivated by focusing on the long-term impact of my research."*
Mentorship and Guidance Seeking	Faculty seek help from mentors and institutional leaders to navigate research.	*"I consult senior faculty for feedback on proposals and guidance on publication strategies."*
Strategic Scheduling and Delegation	Faculty advocate for administrative support and task delegation.	*"I requested reduced teaching load during peak research months to meet project deadlines."*
Use of Tools and Institutional Resources	Faculty utilize tools and subscriptions to enhance productivity.	*"I rely on institutional access to databases and software to streamline my literature review."*
Growth Orientation and Community Impact	Faculty find fulfillment through personal growth and societal contribution.	*"My research on local issues helps improve community practices and gives me a sense of purpose."*

In reference to table 4, themes of coping mechanisms identified among faculty researchers reveal the diverse strategies they employ to navigate the complex demands of academic life. These themes ranging from time management and prioritization, collaboration and peer support, funding adaptation, and mentorship seeking, to emotional resilience, strategic scheduling, and the use of institutional resources highlight how faculty balance research with teaching, administrative duties, and personal challenges.
Recent literature, also highlights coping mechanisms and opportunities for improvement in faculty research productivity. Time management and prioritization are emphasized as critical strategies, with studies showing that structured scheduling enhances academic self-efficacy and commitment (Galindo-Domínguez & Bezanilla, 2021 [20]; Bargmann & Kauffeld, 2023 [21]; Wang & Syafiq, 2023[22]). Collaboration and peer support also emerge as vital drivers of productivity, with evidence that co-authorship and institutional partnerships improve visibility and citation impact (Abramo et al., 2019 [23]; Kwiek, 2020 [24]). Funding adaptation strategies demonstrate resilience, as faculty creatively use open-source tools and small institutional grants to sustain research despite systemic financial constraints, a practice supported by findings on resource-limited contexts (Tijssen & Kraemer-Mbula, 2018 [25]). Moreover, mentorship and peer collaboration are shown to strengthen professional growth and confidence, aligning with self-efficacy theory and reinforcing persistence in challenging projects. Collectively, these themes like time management, collaboration, funding adaptation, and mentorship are supported by recent scholarship, underscoring that institutional recognition and systemic support are essential to fostering a resilient and effective research culture.

Opportunities for Improvement

In the pursuit of academic excellence, institutions must continuously identify and acted upon opportunities that enhance faculty research engagement. In reference to table 6, the themes presented—ranging from time allocation to mentorship represent actionable domains where targeted interventions can yield significant improvements. These themes were not isolated; rather, they formed an interconnected framework that supported a thriving research culture.

Table 6

Opportunities for Improvement in Faculty Research

Final Themes	Definition	Narratives
Research Challenges and Constraints	Structural and skill barriers-time, admin load, methods, publishing, constrain research momentum	*"It is challenging since there is time constraint." "Difficulty in processing PRs, PO, vouchers… overwhelms our time." "Hard time learning and applying statistics." "Difficulty publications… Scopus indexed."*
Motivation and Personal Growth	Research is embraced as continuous learning, critical thinking, and meaningful contribution.	*"Continuous process of learning, adapting and growing." "Research work pushed me to think critically."*

		"Challenging but rewarding… contributes to knowledge."
Institutional Support and Environment	Policies, leadership, manuals, incentives, and admin services are pivotal to thriving.	*"Revisiting the Institutional research manual." "Supportive environment… policies and leadership… collaboration, mentorship." "Deload… honorarium… admin staff/student assistants."*
Collaboration and Networking	Teaming, conferences, and networks polish outputs and expand capacity.	*"More collaboration." "Attendance to conferences and trainings help polishing output." "Best to do it in group… assigning parts." "IFERP networking… reviewer/committee."*
Achievements and Opportunities	Grants, publication, exposure, and flexible time create momentum and impact	*"Grant funded by DOST… presented local, international." "Publish at SCOPUS." "Free to conduct research on free time."*

In addition, faculty research productivity remains a consistent theme in recent scholarship. Madegowda (2025) [26], highlights administrative overload as a systemic issue that limits sustained research engagement, recommending the streamlining of processes such as purchase requests and vouchers through digitization to free up faculty time. Hanson et al. (2024) [27] emphasize that quantitative methods demand specialized training and continuous practice, yet many faculty members lack access to adequate methodological support, underscoring the need for institutions to invest in ongoing training and mentorship programs in statistics and advanced methods. Publishing challenges also persist, with Schmitt et al. (2024) [28] noting that Scopus-indexed journals involve long review cycles, high rejection rates, and stringent formatting requirements, suggesting the establishment of dedicated research support offices to guide faculty through submission and peer review processes.

Taş, Demiral-Uzan, and Uzan (2023) [29] contribute by validating a comprehensive research self-efficacy scale, showing the importance of institutional support in literature review, data analysis, and research ethics to strengthen faculty confidence and productivity. Finally, Solans-Domènech et al. (2019) [30] argue that access to funding, tools, and academic resources is a critical determinant of research outcomes, calling for institutions to prioritize resource allocation to effectively support researchers.

In closing, these opportunities for improvement highlight that faculty research productivity can only be sustained when institutions address both structural and skill-related barriers. By streamlining administrative processes, investing in methodological training, and strengthening support for publication and resource access, universities can foster a more enabling environment that empowers faculty to thrive as researchers and contributors to global scholarship.

The analysis of personal engagement and institutional support tables reveals that faculty members are highly engaged in research output and enhancement strategies, yet only moderately engaged in personal

well-being, behavioral factors, and self-perceived research skills. This imbalance reflects vulnerabilities that align with reported challenges such as time constraints, administrative burdens, and skill gaps in statistics and methodology. On the institutional side, support was consistently rated moderate, with organizational structures and workload management perceived as stronger, but mentorship, resource access, and incentives identified as weak. These findings converge with themes from the challenges, showing that while faculty demonstrate resilience, systemic gaps in mentorship, recognition, and resource provision continue to constrain productivity.

Coping mechanisms such as time management, collaboration, resource pooling, and mentorship seeking illustrate faculty adaptability, yet they remain insufficient without structural reforms. Opportunities for improvement—dedicated research time, expanded funding access, structured mentorship, and stronger collaboration networks—directly address the weak points identified in both personal engagement and institutional support. Thus, the triangulation underscores that faculty resilience and coping strategies can sustain productivity temporarily, but long-term growth requires holistic institutional interventions that strengthen both individual capacities and systemic support mechanisms.

The Development of Faculty Researcher Efficacy Tool

To boost the faculty-researchers of Camarines Norte State College engagement to do research, increased research output and productivity, the development of Faculty Researcher Efficacy Measurement was proposed. As output of this study, the focus was to translate the findings from the analysis—comprising from the result gathered from the data about the faculty-researchers' challenges, perceived effectiveness and support in doing research as well as faculty researchers experiences. The objective was first to develop a comprehensive Faculty Researcher Efficacy Measurement (FREM) tool that quantified these challenges and strengths and to outline targeted strategies and support systems that can boost research output, productivity, and overall well-being. The framework was built on both quantitative and qualitative indicators that reflected the lived experiences of faculty, ensuring that the final product was both empirically robust and contextually relevant.

The FREM tool was designed from 10 constructs that was founded according to the data gathered from the surveys and interviews. Each domain was mapped to specific items that explored relevant items using a Likert-scale format, where responses range from "Very High" to "Very Low" For example, the "Time Constraints" domain was include items assessing the balance between teaching loads and allocated research time, while the "Funding Challenges" domain addressed the adequacy and timeliness of available resources. Other domains incorporated parameters like the clarity and accessibility of institutional policies, the ease of accessing resources, the pressure to publish, intrinsic motivation levels, the strength of collaborative networks, and the availability of formal mentorship. Together, these domains created a multi-dimensional instrument that objectively and subjectively measures research efficacy.

Each component of the questionnaire was being designed to serve as both a diagnostic tool and a benchmark for improvement. Detailed item construction involved piloting a series of questions with a small sample of faculty researchers to refine language, clarity, and relevance. The quantitative portion generated scores that indicate strengths and weaknesses in each domain, while embedded open-ended questions will allow for richer qualitative insights that explain systemic challenges and offer narratives behind the numbers. In designing FREM, special attention was given to incorporating the data gathered as bases on the tool development.

Parallel to the instrument's design, a suite of interventions was conceptualized to address the identified gaps. For instance, if the FREM tool revealed that "Institutional Policies and Guidelines" and "Mentorship Program Limitations" were major stumbling blocks, the design included specific proposals for administrative reforms and structured mentorship programs, respectively. The interventions were designed not in isolation but as an integrated approach linking policy revisions with training modules, resource management strategies, and collaborative platforms. This holistic design ensured that the tool functions within an ecosystem that supports continuous improvement, where regular assessments led to iterative interventions that are responsive to faculty needs. This design not only did seek to quantify current challenges but also to inspired actionable change that bridges the gap between academic aspirations and the realities of administrative and infrastructural constraints.

Figure 1

The Faculty Research Efficacy Measurement Manual

Figure 2
The Faculty Research Efficacy Measurement (FREM) Questionnaire

FACULTY RESEARCH EFFICACY MEASUREMENT (FREM)
(Questionnaire)

Nos	Statements
1	I have the ability to identify significant research problems.
2	I am proficient in analyzing research data effectively.
3	I am skilled at writing research papers.
4	I have adequate access to research funding provided by my institution.
5	I have adequate tools, software, or equipment to conduct research.
6	I can easily access libraries, online journals, or other academic resources
7	I am confident in fostering research collaborations within my institution and extending these partnerships to external organizations and networks
8	I engage in joint research activities and maintain professional networks that expand opportunities for scholarly productivity and impact.
9	I draw meaningful support from my professional network, which strengthens my capacity to achieve research objectives.
10	My institution's policies promote and encourage research activities
11	I have sufficient time for research despite teaching or administrative duties
12	My institution provides training or workshops on advanced research skills
13	I am motivated to achieve my research goals despite challenges
14	I feel efficacious in my research because my work environment encourages innovation and creativity.
15	I feel effective in my research abilities, enabling me to make significant contributions to the academic community.
16	I am confident in publishing research in high-impact journals
17	Through my research, I generate insights and innovations that help solve real-world societal and practical challenges.
18	My past research outputs have significantly influenced my personal research efficacy.
19	I often face challenges balancing research with other professional responsibilities
20	Institutional bureaucracy hinders my research activities
21	Financial constraints hinder my confidence in conducting research."
22	I balance multiple responsibilities by carefully planning and prioritizing to maintain efficiency.
23	I set realistic deadlines and use scheduling tools to manage my workload
24	I set boundaries and avoid overcommitting to sustain a manageable and productive workflow.
25	I practice self-care to boost mental clarity and research performance.
26	I follow healthy routines to support cognitive function and productivity.
27	I balance wellness and work, ensuring sustained research efficacy.
28	I have physical and mental resilience to do research.
29	Resilience and adaptability in my personal behavior enable me to remain productive in research despite challenges or setback.
30	My personal habits, such as effective stress management and resilience, support my ability to conduct high-quality research.

In reference to figure 2, it showed a holistically captured the multidimensional nature of faculty research engagement. It began with core competencies in research skills and knowledge, emphasizing problem identification, data analysis, and scholarly writing as the foundation of academic inquiry. These were complemented by access to resources, which ensured that funding, tools, and scholarly materials were available to support rigorous projects. Equally important were collaboration and networking, which highlighted the role of partnerships, conferences, and professional networks in expanding opportunities and enhancing productivity. At the institutional level, policies, workload allocation, and training formed the backbone of institutional support, enabling faculty to balance responsibilities while continuously developing their expertise. Together, these domains established the structural and skill-based conditions necessary for effective research practice.

Beyond structural supports, the tool also addressed the personal and contextual factors that sustained long-term research efficacy. Motivation and work environment captured intrinsic drive, creativity, and recognition, while research output and impact measured the visibility, relevance, and influence of scholarly contributions. At the same time, challenges and barriers acknowledged systemic obstacles such as bureaucracy, financial constraints, and workload pressures, which could undermine productivity. To counterbalance these, the domains of workload and time management, mental health and well-being, and personal and behavioral factors emphasized sustainable practices, resilience, and self-awareness. Collectively, these dimensions provided a comprehensive framework that not only evaluated faculty confidence and capacity but also identified areas for institutional intervention and personal growth, ensuring that research efficacy was understood as both a professional competency and a lived experience.

Figure 3

The Faculty Research Efficacy Measurement (Answer sheet)

Faculty Research Efficacy Measurement
(Answer Sheet)

Full Name:	
Age:	
Gender:	
Highest Educational Attainment:	
Academic Rank:	
Designation:	
Work Assignment:	

This is a self-report questionnaire that aims to assess the faculty researchers perceived efficacy across critical domains, providing insights into strengths and areas for improvement.

Instruction: Please read each statement carefully and shade the circle that best represents how much you agree on how applicable the statement is to you. Use the scale below as your guide:

1-Strongly Disagree 2-Disagree 3-Neutral 4-Agree 5-Strongly Disagree

Statement	1-SD	2-D	3-N	4-A	5-SA
1	O	O	O	O	O
2	O	O	O	O	O
3	O	O	O	O	O
4	O	O	O	O	O
5	O	O	O	O	O
6	O	O	O	O	O
7	O	O	O	O	O
8	O	O	O	O	O
9	O	O	O	O	O
10	O	O	O	O	O
11	O	O	O	O	O
12	O	O	O	O	O
13	O	O	O	O	O
14	O	O	O	O	O
15	O	O	O	O	O

Statement	1-SD	2-D	3-N	4-A	5-SA
16	O	O	O	O	O
17	O	O	O	O	O
18	O	O	O	O	O
19	O	O	O	O	O
20	O	O	O	O	O
21	O	O	O	O	O
22	O	O	O	O	O
23	O	O	O	O	O
24	O	O	O	O	O
25	O	O	O	O	O
26	O	O	O	O	O
27	O	O	O	O	O
28	O	O	O	O	O
29	O	O	O	O	O
30	O	O	O	O	O

S&K	AR	C&N	IS	M&E	RO&P	C&B	W&TM	MH& WB	P&BF

The Faculty Research Efficacy Measurement (FREM) Tool represents a significant step toward strengthening the culture of research in higher education institutions. Developed to provide a structured and evidence-based framework for assessing faculty members' self-perceived efficacy, this tool responds to the growing need for reliable instruments that not only measure research engagement but also guide reflection, growth, and institutional support. In an academic environment where research productivity is both a personal responsibility and an institutional priority, the FREM Tool offers a balanced approach: it empowers faculty to evaluate their own strengths and areas for improvement while providing administrators with valuable insights to inform mentoring, workload reforms, and strategic interventions. Beyond its technical design, the FREM Tool embodies the principle of reflective utility. It encourages faculty members to pause, examine their practices, and recognize the interplay between personal resilience, institutional support, and scholarly productivity. In doing so, it fosters a culture of continuous improvement, where self-awareness leads to actionable change and institutional responsiveness. For administrators, the aggregated results provide a roadmap for designing faculty development programs, tailoring mentoring initiatives, and shaping research policies that are both evidence-based and context-sensitive. For faculty members, the tool becomes a mirror—highlighting strengths to be celebrated and weaknesses to be addressed—ultimately guiding them toward greater efficiency, resilience, and schoarly excellence.

As higher education continues to evolve in response to global challenges and opportunities, tools like FREM are indispensable. They remind us that research efficacy is not merely about output but about the holistic integration of skills, support, motivation, and well-being. It is my hope that this tool will serve as

both a compass and a catalyst, guiding faculty members and institutions alike toward a more reflective, resilient, and productive research culture.

Conclusion

The study concluded that faculty members at Camarines Norte State College exhibit strong engagement in research productivity and strategic enhancement, reflecting a proactive academic disposition. However, moderate scores in personal well-being, behavioral factors, and self-perceived research skills reveal underlying vulnerabilities that may impede sustained efficacy. Institutional support, though present, remains uneven—strong in organizational structure and workload management but weak in mentorship, recognition, and resource accessibility. These findings emphasize that faculty research productivity is shaped not only by individual effort but also by systemic and cultural conditions. The convergence of role overload, resource scarcity, and institutional gaps underscores the need for strategic reforms that balance personal empowerment with institutional support. Ultimately, the Faculty Research Efficacy Measurement (FREM) framework emerged as a diagnostic and developmental tool, integrating behavioral management and institutional mechanisms to enhance research engagement and well-being across higher education contexts.

Recommendations

To strengthen faculty research efficacy and engagement, the study recommends a multi-pronged institutional strategy anchored in the FREM framework. This includes implementing capability-building programs to boost confidence in research, wellness initiatives to address stress and burnout, and structured mentorship systems to reinforce time management and self-regulation. Institutions should allocate protected research time, expand funding access, and invest in infrastructure that supports scholarly productivity. Formalizing mentorship and interdisciplinary collaboration programs will sustain resilience and foster inclusivity. Moreover, embedding these reforms into policy and leadership frameworks ensures alignment with institutional goals and long-term sustainability. Through these integrated interventions, higher education institutions can cultivate a robust, equitable, and research-driven culture that empowers faculty members to thrive academically and contribute meaningfully to institutional excellence.

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