Promoting University Research Excellence and Faculty Needs Assessment: A Catalyst for Future Development Initiatives in Baguio Central University

ABSTRACT

This study investigates the research-related training needs of faculty members across various colleges and schools within Baguio Central University in Baguio City Philippines. Specifically, it aims to identify key areas where faculty members require additional training, assess the extent of these needs, and provide recommendations for capacity-building initiatives. The study population includes faculty members from different academic units, with a total of 47 respondents voluntarily participating. The highest representation came from the College of Nursing and School of Midwifery (23.6%), followed by the College of Teacher Education and Liberal Arts (20%). A descriptive research design was employed, utilizing a researcher-developed needs assessment tool validated by an external expert. The survey covered 26 research-related topics, and data were analyzed using Excel’s Data Analysis Toolpak to compute frequencies, percentages, means, and standard deviations. The findings indicate that the most pressing training needs among faculty members include conducting action research for instructional improvement (48.94%), qualitative research methods (44.68%), and research instrument development (40.43%). The results highlight the necessity of strengthening faculty research capacity through targeted training programs. It is recommended that the university implement structured training initiatives focusing on both qualitative and quantitative research methodologies, research instrument validation, and publication strategies. Additionally, institutional policies should emphasize mentorship, collaboration, and research incentives to cultivate a more robust research culture. Strengthening these areas will not only enhance faculty research skills but also contribute to increased research productivity and institutional growth.

***Keywords:*** *Research capacity-building, faculty development, research training needs, academic research culture, research productivity*

# I. INTRODUCTION

Research serves as a vital instrument for advancing both community well-being and national development. Recent work highlights the significance of integrating new research initiatives to foster community partnerships (Epstein & Sheldon, 2021). By applying research-based interventions and programs, societal and community issues can be effectively addressed, prompting higher education institutions like the Baguio Central University to encourage faculty and students alike to conduct research in fields such as humanities, social sciences, business, health, science, engineering, and education. In the twenty-first century, educators are expected not only to focus on teaching but also to engage in research and community outreach, incorporating relevant findings into their instructional practices (Navarro, 2011; Kizlik 2010; Resnik, 2015; Tabatabaei & Nazem, 2020).

Conducting a faculty needs assessment is a key strategy for universities committed to nurturing human capital. Insights from such assessments propel educators toward ongoing professional growth (Ruf, 2014). Although many higher education institutions prioritize research, limited participation among faculty often stems from insufficient knowledge and expertise. Graduate studies and research seminars may not always translate into active research engagement, particularly when barriers like inadequate data presentation skills and limited time persist (Nejatizadeh et al., 2022).

Recognizing the significance of research in academia, Baguio Central University through the Research and Development Center carried out a needs assessment to evaluate faculty capacities and pinpoint areas requiring support. This effort aimed to enhance faculty performance, address existing gaps (Kizlik, 2023), and bolster the institution’s research culture. Specifically, the assessment provides baseline information to guide seminar and training topics for the next three years, concentrating on issues and conditions requiring further exploration (Bryman, 2020).

Aligned with the Commission on Higher Education (CHED) directives, higher education institutions are called to strengthen their research capacities in pursuit of advancing academic quality, innovation, and societal impact. CHED’s policies emphasize the need for well-rounded programs that cultivate faculty expertise, support knowledge generation, and foster meaningful community partnerships. Through these mandates, universities are guided to embed research initiatives within their core strategies, ensuring that instruction, research, and extension work together to address pressing local and national concerns. This integrated approach underscores the pivotal role of faculty engagement, as their scholarly work contributes not only to institutional reputation but also to community development and nation-building efforts.

In keeping with these CHED mandates, the University’s Vision, Mission, Goals, and Objectives (VMGO) underscore the pursuit of academic excellence and the promotion of a research-driven culture. The University aspires to produce graduates who are well-prepared to tackle real-world challenges, empowered by faculty-led research endeavors that shape cutting-edge curriculum and methodologies. Guided by a commitment to excellence, the VMGO cultivates an environment where inquiry, creativity, and community involvement thrive. Consequently, faculty members are encouraged to expand their research knowledge and skills, ensuring that the University remains at the forefront of innovation while upholding its dedication to social responsibility and transformative education.

Because research demands both technical expertise and writing proficiency, structured faculty development is essential. Writing itself is a multifaceted ability (Saberi & Rahimi, 2022). Consequently, establishing a strong research culture and productivity involves designing capability-building programs grounded in solid baseline data. Strengthening research skills necessitates deliberate planning and prioritization, along with identifying and sequencing topics according to urgency. This approach ensures the selection of appropriate experts, the logical scheduling of training activities, and the formation of a three-year timeline for faculty research development—helping to keep tasks on track (Ruf, 2024).

**Problem Objective**

This study aimed to determine faculty needs by identifying their preferred topics for capability-building seminars and trainings. Specifically, it examined the urgency of various research topics and gathered insight into the faculty’s personal research interests.

# II. METHODOLOGY

**Research Design**

This study utilized a quantitative descriptive approach to evaluate faculty needs across various colleges and schools concerning research. Descriptive research seeks to clarify and interpret events, resources, institutions, and related domains (Creswell, 2022). In this context, it aimed to capture the respondents’ views and preferences regarding research topics they deemed essential for faculty research capacity-building activities.

**Participants and Setting**

In total, 47 faculty members participated in the assessment. The College of Nursing and School of Midwifery comprised around 29.79% (14 respondents). The College of Teacher Education and Liberal Arts accounted for 23.40% (11 respondents), followed by the College of Criminal Justice Education at 12.77% (6 respondents). The College of Business Administration represented 10.64% (5 respondents), while both the College of Tourism and Hotel Restaurant Management and the Graduate School made up 8.51% each (4 respondents). The Non-teaching Unit recorded the lowest participation among all groups, with only 3 respondents (6.38%), likely due to the absence of mandatory research obligations for staff in that unit.

The choice of convenience sampling is justified by several factors. First, participation was entirely voluntary, meaning faculty members opted in based on their willingness rather than being randomly selected. Second, the open invitation ensured that all faculty members had the opportunity to participate, though no formal selection process was implemented. Lastly, the study's reliance on accessibility-based selection meant that only those who were available and willing to respond took part, leading to a sample that may not be fully representative of the entire faculty population.

# Instrument

# A customized, researcher-developed needs assessment tool consisting of 26 items was used to measure faculty needs across a range of research-related activities. An external expert reviewed and validated the content of this instrument. Upon approval and endorsement, the tool was disseminated to faculty members with the assistance of deans and college research coordinators. The faculty were given a week to complete the instrument.

**Treatment of Data**

After collecting the questionnaires, the survey data were processed using Excel’s Data Analysis Toolpak. Frequencies, percentages, means, and standard deviations were computed to describe the findings. A simple Pearson r correlation was conducted to examine whether a relationship exists between faculty members’ perceived urgency and their valuation of each topic. A five-point Likert scale was employed to gauge the degree of urgency for each topic of interest. The corresponding mean values were then categorized according to a verbal interpretation matrix aligned with these urgency levels.

**Table 1:** A five-point Likert scale

|  |  |  |
| --- | --- | --- |
| **Rating** |  **Range** | **Descriptive Interpretation** |
| 5 | 4.21-5.00 | Very Much Urgent |
| 4 | 3.41-4.20 | Urgent |
| 3 | 2.61-3.40 | Neutral |
| 2 | 1.81-2.60 | Not Urgent |
| 1 | 1.0-1.80 | Very Much not urgent |

# III. RESULTS AND DISCUSSIONS

The faculty training needs analysis revealed that all identified research-related topics were classified as urgent, highlighting a significant demand for research capability-building among faculty members. The most pressing need was conducting action research for the improvement of instruction, with 48.94% of respondents rating it as urgent (M = 4.19, SD = 0.993). These finding underscores faculty members' recognition of action research as a tool for enhancing instructional practices. Similarly, training in qualitative research methods, including content analysis, phenomenology, ethnography, grounded theory, and case analysis, was identified as a crucial need, with 44.68% of respondents indicating its urgency (M = 4.10, SD = 1.007). Additionally, research instrument

Table 2 serves as a gateway to understanding various

**Table 2:** Gateway to understanding various development and validation

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Topics** | **n** | **%** | **Mean** | **SD** | **VI** |
| 1. Conducting action research for the improvement of instruction | 23 | 48.94 | 4.19 | 0.993 | Urgent |
| 2. Conducting qualitative method (e.g., content analysis, phenomenology, ethnography, grounded theory, case analysis) | 21 | 44.68 | 4.10 | 1.007 | Urgent |
| 3. Research instrument development and validation | 19 | 40.43 | 4.09 | 0.981 | Urgent |
| 4. Evaluating programs and activities and developing instruments for evaluation | 18 | 38.30 | 4.08 | 0.939 | Urgent |
| 5. Determining appropriate statistical tool for a given problem | 18 | 38.30 | 4.06 | 0.998 | Urgent |
| 6. Quantitative method (e.g., descriptive, experimental, correlation, comparing means and regression) | 18 | 38.30 | 4.05 | 1.026 | Urgent |
| 7. Preparing extension service proposal - Evaluating the impact of the extension service | 18 | 38.30 | 4.05 | 0.980 | Urgent |
| 8. Preparing extension service proposal - Assessing the needs of the community | 18 | 38.30 | 4.04 | 0.981 | Urgent |
| 9. Conducting lesson study and writing research  | 20 | 42.55 | 3.97 | 1.166 | Urgent |
| 10. Research report writing | 17 | 36.17 | 3.95 | 1.050 | Urgent |
| 11. Preparing extension service proposal - Writing the terminal report | 15 | 31.91 | 3.93 | 9.966 | Urgent |
| 12. Developing a research proposal | 19 | 40.43 | 3.91 | 1.161 | Urgent |
| 13. Conducting mixed method (e.g., embedded) | 15 | 31.91 | 3.87 | 1.077 | Urgent |
| 14. Proper conduct of paper presentation | 17 | 36.17 | 3.87 | 1.125 | Urgent |
| 15. Proper citation of references using APA form (APA7th edition) | 15 | 31.91 | 3.85 | 1.210 | Urgent |
| 16. Reviewing literature using online resources | 14 | 29.79 | 3.84 | 1.018 | Urgent |
| 17. Paraphrasing cited texts | 17 | 36.17 | 3.84 | 1.154 | Urgent |
| 18. Research advising and mentoring | 18 | 38.30 | 3.79 | 1.275 | Urgent |
| 19. Conducting multivariate analysis (e.g., multiple regression, path analysis, structural equation modeling) | 16 | 34.04 | 3.78 | 1.167 | Urgent |
| 20. Training on intellectual property and patent review | 14 | 29.79 | 3.77 | 1.104 | Urgent |
| 21. Research refereeing (peer review and external review) | 12 | 25.53 | 3.77 | 1.086 | Urgent |
| 22. Observing ethics in research | 14 | 29.79 | 3.74 | 1.128 | Urgent |
| 23. Conducting thesis/dissertation defense | 18 | 38.30 | 3.73 | 1.312 | Urgent |
| 24. Conducting review of research proposal | 15 | 31.91 | 3.71 | 1.262 | Urgent |
| 25. Conducting ethics review for proposal | 12 | 25.53 | 3.68 | 1.093 | Urgent |
| 26. Research Publication | 16 | 34.04 | 3.85 | 1.150 | Urgent |
| **AVE** | **17** | **35.79** | **3.91** |  | **Urgent** |

development and validation emerged as a priority (40.43%, M = 4.09, SD = 0.981), reflecting the necessity of ensuring the reliability and validity of research tools.

Additionally, the need for training in quantitative research methods (M = 4.05, SD = 1.026) and determining appropriate statistical tools for data analysis (M = 4.06, SD = 0.998) was also evident, with 38.30% of faculty members identifying these as areas for improvement. Furthermore, 34.04% of respondents expressed the need for training in multivariate analysis, such as multiple regression, path analysis, and structural equation modeling (M = 3.78, SD = 1.167). These findings suggest that faculty members require additional support in selecting appropriate statistical techniques and interpreting complex data.

Hence, beyond methodological concerns, faculty members also indicated an urgent need for training in research report writing (36.17%, M = 3.95, SD = 1.050) and proper citation of references using APA 7th edition (31.91%, M = 3.85, SD = 1.210). The need for improving literature review skills using online resources (29.79%, M = 3.84, SD = 1.018) and paraphrasing cited texts (36.17%, M = 3.84, SD = 1.154) highlights the importance of strengthening faculty members' academic writing skills. Ethical considerations in research were also identified as a training priority, with observing ethics in research (M = 3.74, SD = 1.128) and conducting ethics reviews for research proposals (M = 3.68, SD = 1.093) rated as urgent by 29.79% and 25.53% of respondents, respectively.

Moreover, research dissemination and publication were also emphasized as critical areas for training. Proper conduct of paper presentations (M = 3.87, SD = 1.125) and research publication (M = 3.85, SD = 1.150) were identified as urgent by 36.17% and 34.04% of respondents, respectively. Additionally, research refereeing, which includes peer review and external review, was recognized as an important competency, with 25.53% of respondents expressing the need for training in this area (M = 3.77, SD = 1.086). The findings suggest that faculty members require structured guidance in preparing research for publication and in actively participating in scholarly review processes.

Overall, the average percentage of faculty members identifying these topics as urgent was 35.79%, with an average mean score of 3.91, reinforcing the need for comprehensive research training programs. The standard deviations indicate moderate variability in responses, suggesting that while some faculty members may already possess foundational research skills, others require significant support. The high demand for training in action research, research ethics, statistical analysis, and research publication suggests that a well-structured faculty development program should address both practical and theoretical aspects of research.

To address these needs, institutions should develop a tiered research training program that begins with fundamental research skills, such as literature review and ethical research practices, and progresses to more advanced topics, including multivariate analysis and mixed methods research. Additionally, strengthening faculty members’ research writing and publication skills through workshops, mentorship programs, and writing support services can enhance research output. Establishing an institutional Research Ethics Committee and providing targeted training on ethics review processes would further ensure compliance with academic and research integrity standards. Encouraging interdisciplinary collaboration in action research and community-based research projects can also enhance faculty engagement and contribute to institutional research productivity.

The findings of the faculty training need analysis have significant implications for the university’s research culture, productivity, and utilization. The widespread need for training in research methodologies, statistical analysis, ethical research practices, and publication indicates that faculty members require structured capacity-building initiatives to enhance their research competencies. Addressing these gaps through targeted faculty development programs will not only improve the quality and quantity of research output but also foster a stronger research culture within the university. By equipping faculty members with essential skills in research writing, dissemination, and publication, the university can increase scholarly contributions, enhance institutional visibility, and strengthen collaborations with academic and industry partners. Moreover, improved research capabilities will lead to more impactful studies that address community and industry needs, ensuring that research findings are effectively utilized in policy-making, curriculum development, and practical applications. Ultimately, investing in faculty research training will position the university as a hub of innovation and knowledge generation, contributing to its reputation and accreditation standing in both national and international academic communities.

**Figure 1.** *The distribution of topics based from 47 faculty preferences*



Figure 1 shows the bar graph representing the faculty training needs analysis, highlighting the most urgent research-related training topics based on percentage of 47 faculty who identified them as a priority. These findings emphasize the necessity of a structured and responsive faculty development program that caters to research capacity-building needs. By addressing these training gaps, institutions can equip faculty members with the essential skills to produce high-quality, publishable research, thereby strengthening the institution’s research culture and its contribution to academic knowledge and community development.

Lastly, the findings from the faculty training needs analysis align with recent studies emphasizing the critical importance of targeted research capacity-building initiatives in higher education institutions. Gorard (2001) highlighted that faculty members often exhibit varying levels of proficiency in research skills, underscoring the necessity for comprehensive training programs to enhance research competencies and foster a robust research culture. Similarly, a study assessing the research capabilities of higher education institution staff found that while researchers demonstrated competence, there was a notable need for improvement in areas such as statistical tool application and research publication (Lewis, 2002). This suggests that even experienced researchers benefit from ongoing training to stay abreast of evolving research methodologies and dissemination practices (UNESCO, 2004). Furthermore, a study by Slade (2017) assessing teachers' functional and research competencies identified specific areas where faculty members required further development, including research skills and technological proficiency. These findings collectively reinforce the imperative for institutions to implement structured and continuous professional development programs that address both foundational and advanced research skills, thereby enhancing overall research productivity and utilization.

**IV. Conclusions and Recommendations**

**Conclusions**

The faculty training needs analysis revealed that faculty members have an urgent need for capacity-building in various research areas, particularly in conducting action research, qualitative and quantitative methodologies, research instrument development, and statistical analysis. The findings highlight the necessity for targeted training programs to address gaps in research competencies, improve faculty research engagement, and enhance the university’s overall research productivity and utilization. Addressing these training needs is essential for fostering a strong research culture and equipping faculty members with the necessary skills to contribute to institutional and national research goals.

**Recommendations**

Based on the findings, it is recommended that the university implement regular research training programs to equip faculty members with the necessary skills in action research, advanced methodologies, and data analysis. Establishing a mentorship and research advising support system can further enhance faculty research engagement by providing guidance from experienced researchers. Conducting seminars on action research writing and instrument development should be prioritized across all academic programs to enhance instructional quality and facilitate the effective assessment of school programs and activities.

Additionally, a well-maintained website portal should be established to provide timely updates on faculty development schedules and research-related topics. This platform can ensure that faculty researchers are consistently informed not only about emerging research themes but also about institutional policies, procedures, available research incentives, and other relevant matters to encourage active research participation.

Sustaining the development of a research portfolio for faculty members actively engaged in research is essential, as it can motivate them to advance their research careers. Regular tracking of their research training progress and accomplishments should also be implemented to support their continuous professional growth. Additionally, improving access to research resources, such as online databases, statistical tools, and funding opportunities, will support faculty members in conducting high-quality research. Strengthening research publication and dissemination efforts through training on academic writing, publication processes, and research ethics is also crucial in increasing research output. Finally, encouraging collaborative and interdisciplinary research initiatives can foster a more dynamic research culture, enabling faculty members to engage in meaningful and impactful research projects that contribute to institutional and national development goals.

**Consent:**

Prior to data collection, respondents were thoroughly informed of the study’s purpose through a cover letter. Voluntary participation was upheld by requiring informed consent, which clearly stated the respondents’ right to refuse or withdraw at any point. The anonymity of all participants was strictly maintained throughout the study.

**Disclaimer (Artificial intelligence)**

The author hereby declares that generative AI technologies, including Large Language Models (LLMs), have been used in the writing and/or editing of this manuscript. The AI tool utilized for this purpose is ChatGPT (Version: GPT-4, Source: OpenAI).

Details of AI usage:

1. AI assistance was employed for structuring, refining, and enhancing clarity in the manuscript.
2. The AI-generated content was reviewed, edited, and validated by the author(s) to ensure accuracy, coherence, and adherence to research standards.
3. Input prompts provided to the AI primarily included requests for text refinement, paraphrasing, grammatical corrections, summarization, and formatting suggestions.

The final manuscript remains the intellectual work of the authors, who take full responsibility for its content, accuracy, and interpretation.

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