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IMPLEMENTATION OF THE FOURFOLD FUNCTION: A STUDY OF HIGHER EDUCATION INSTITUTIONS IN CARAGA REGION

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ABSTRACT

This study examined the extent to which accredited higher education institutions in the Caraga Region fulfill the fourfold functions of higher education institutions —instruction, research, Extension, and Production—within the Arts and Sciences programs. Using a descriptive-quantitative approach, data were collected from 72 respondents, including administrators, faculty, and students across six higher education institutions. The results revealed that the instruction function was fulfilled very well, while research, extension, and production were rated good but still needed improvement. Production revealed the least fulfilled function. These results underscore both strengths and gaps in the functional delivery. The study concludes that while Caraga higher education institutions show an overwhelming dedication to the fourfold functions, a more level approach would enhance institutional impact.

KEYWORDS

Fourfold function, Instruction, Research, Extension, Production

INTRODUCTION

Background

Higher education plays a pivotal role in the development of societies. The development of a society can be achieved through instruction, research, extension, and innovation(Berchin et al., 2021; Rodriguez-Castro & Aparicio, 2021). These are the fourfold functions that underpin the mission of higher education institutions, as mandated by UNESCO. Striving to achieve all four functions of an HEI is essential, not only for student outcomes but also for social and economic advancement (UNESCO, 2022).

In Arts and Sciences programs, the fourfold functions are more than just academic expectations. These programs serve as the foundation of liberal education, fostering creativity, critical thinking, and civic awareness among students (Dekker, 2020). However, higher education institutions (HEIs) are often constrained by insufficient infrastructure, funding, collaboration, and innovation gaps, which make it difficult for them to fulfill all four functions (Altbach & de Wit, 2020).

As confirmed by earlier studies, the institution's primary focus is instruction; however, there is an increasing disparity in the implementation of other institutional functions, including research, extension, and production, especially in regions such as the Caraga Region.

This study is relevant as it focuses on understanding how these functions play out in the real-world setting of the Caraga Region. Instead of focusing on each function separately, the study aimed to evaluate how instruction, research, extension, and production functions of the Arts and Sciences are fulfilled by various constituents. The study contributes to achieving educational and functional equilibrium in regional higher education institutions (HEIs) by documenting perceptions on the absence of work-life balance among faculty, particularly in the equitable distribution of teaching, research, administration, and extension duties.

THEORETICAL FRAMEWORK

This research drew upon two complementary perspectives: Functionalism, as outlined by Émile Durkheim, and Systems Theory, as developed by Ludwig von Bertalanffy. Functionalism focuses on the effectiveness of each subsystem within a system; all parts of a functional system work together to achieve harmony, balance, and equilibrium. In higher education, this means that instruction, research, extension, and production activities must be coordinated to work in sync for an institution to fulfill its purpose in society. Each function serves as a cornerstone in preserving institutional equilibrium, benefiting the students and the community at large to the greatest extent possible.

On the contrary, Systems Theory views an institution of higher learning as a holistic system within an organization, where all parts, such as departments, programs, or even individual functions, are interrelated and collectively influence the organization's overall performance. There are specific weaknesses in one area, such as a lack of output in extension activities and research, or even poorly developed extension programs. Effectiveness is reduced in virtually every other aspect as well because all areas are so closely interlinked. This perspective fosters an inclusive view of these institutions and an acceptance that effective program planning and implementation rely on the interdependence and integration of all other functions. In combination, these two theories were used to analyze the data and interpret the responsiveness of Caraga Higher Education Institutions (HEIs) to their mandates.

Literature Review

The role of higher education institutions (HEIs) has evolved over the years from mere instruction centers to fully integrated, multifunctional organizations that encompass instruction, research, extension, and production. Recent literature highlights that regions with limited funding and numerous challenges have very few resources, which imbalances the deployment of the Fourfold Function.

Higher Education Institutions (HEIs) in the Philippines continue to strive to meet the Outcomes-Based Education Framework set by the Commission on Higher Education, applying an updated curriculum, well-qualified faculty, and proper institutional alignment. However, perceived challenges by Molenda and Subramony (2020) and Hufana (2019) regarding learning environments, such as outdated resources and limited access to technology, significantly hinder the instructional delivery of higher education institutions (HEIs) and the learning outcomes of students.

Externally available funding and publication expectations appear to be slowly increasing scholarly output, resulting in additional institutional investment in academic and scientific research. As also underscored by Rodríguez-Castro and Aparicio (2021) and Phan et al. (2022), other engagements in scholarship within regional higher education institutions include excessive teaching responsibilities, a non-existent scholarly environment, and the absence of internal grants. Wieman (2019) emphasized the importance of ample mentorship and collaboration in maximizing institutional output, a challenge that remains particularly significant for under-resourced institutions.

On the other hand, extension programs have become a dominant focus of Higher Education Institutions (HEIs) in an attempt to demonstrate social concern. However, Saldaza (2020) and Trinh (2023) argue that partnerships with communities should be more enduring, as they are currently underserved, and structured frameworks are needed to advance past superficial community engagements. Fuentes Diaz et al. (2020) also categorically state that relevant work requires strong stakeholder engagement together with defined monitoring mechanisms, which are seldom present at the regional level.

Meanwhile, production, often the least developed function, is still limited in scope across many institutions. Abuso and Quitora's (2021) and Goulart et al.'s (2021) studies indicate that most higher education institutions (HEIs) lack defined policies for innovation, product development, and income-generating activities. Hassinger and Carvalho (2021) report that most higher education institutions (HEIs) have the least defined linkages with industry, and their intellectual property resources are underutilized, adding other barriers to the growth of this function.

As Findler et al. (2019) and Makoe and Olcott (2021) suggest, the imbalance in these functions can be primarily attributed to governance issues, a lack of funds, and prevailing policies, which are also intertwined with the need for rapid service delivery. These challenges significantly impact the underfunded tiered Higher Education Institutions (HEIs), which systemically focus on the outdated Fourfold Functions Framework.

In light of this, there is a growing demand for context-specific evaluations that take into account the actual processes occurring within the context of higher education institutions. This study addresses this gap by examining the Arts and Sciences programs of

accredited higher educational institutions (HEIs) in the Caraga Region, which represents the struggles and aspirations of regional higher education in the Philippines.

Objectives of the Study/Statement of the Problem

This study aimed to evaluate the level of fulfillment of the Fourfold Functions—Instruction, Research, Extension, and Production—in the management of Arts and Sciences programs within accredited higher education institutions (HEIs) in the Caraga Region. Specifically, it sought to answer the following research question:

1. To what extent are the Fourfold Functions of Higher Education being effectively fulfilled, particularly in the management of arts and sciences programs in the selected accredited tertiary education institutions in the Caraga region, in terms of:
    1.1. Instruction;
        1.1.1. Curriculum Quality;
        1.1.2. Teaching Methods;
        1.1.3. Learning Resources and Facilities;
        1.1.4. Faculty Qualifications?
    1. 2 Research;
        1.2.1. Research Output;
        1.2.2. Funding and Grants;
        1.2.3. Collaboration and Partnerships;
        1.2.4. Faculty and Student Involvement?
    1.3 Extension;
        1.3.1. Community Outreach Programs;
        1.3.2. Stakeholder Collaboration;
        1.3.3. Student and Faculty Participation?
    1.4 Production:
        1.4.1. Innovation and Product Development?

RESEARCH METHODS

This study used a descriptive quantitative research design to assess the degree to which the Arts and Sciences programs offered by higher educational institutions in the Caraga region implemented the Fourfold Functions. Descriptive approaches help capture existing conditions and identify trends without variable manipulation, making them ideal for performance evaluations.

The research took place in six accredited higher educational institutions located in the Caraga region. The total number of participants for these institutes was 72 individuals. To achieve adequate representation from all institutions, quota sampling was employed, resulting in two administrators, five faculty members, and five students per Higher Education Institution (HEI). This method ensured diverse stakeholder insights that were necessary to capture the implementation of the programs.

Also, a structured, researcher-designed questionnaire, which aligned with CHED policies and PACUCOA accreditation indicators, served as the data collection tool. The instrument underwent content validation through expert consultation and was pilot-tested for reliability. The data were collected over one month using both hard copy and Google Forms to ensure comprehensive coverage. Responses were encoded and analyzed using Microsoft Excel and SPSS. Descriptive statistics were calculated with a focus on the mean for each function. With this approach, regional higher educational institutions can be evaluated systematically and uniformly against the core functions outlined in national standards for higher education.

RESULTS AND DISCUSSION

This section presents the results of a study conducted in six accredited higher education institutions (HEIs) in the Caraga Region based on responses from 72 participants. The results are framed within the Fourfold Functions—Instruction, Research, Extension, and Production—and are examined in relation to the relevant indicators.

Table 1. *Extent of Fulfilling the Fourfold Functions of Higher Education in Terms of Instruction*

Indicators	Mean	Verbal Interpretation
1. Curriculum Quality	4.34	Very High
2. Teaching Methods	4.20	High
3. Learning Resources and Facilities	3.67	High
4. Faculty Qualifications	4.13	High
Mean	4.09	High

Legend:4.21 - 5.00 (Very High);3.41 - 4.20 (High);2.61 - 3.40 (Moderate);1.81 - 2.60 (Low);1.00 - 1.80 (Very Low)

The Function Instruction received the highest rating, "very high," with a grand mean of 4.23 among the Fourfold Functions. The results suggest that teaching in the Arts and Sciences schools of the selected higher education institutions (HEIs) in the Caraga Region is conducted with a high level of appreciation from the respondents. Several instructional pillars underpin this strong performance.

Among the indicators, Curriculum Quality was rated the highest, with a mean of 4.34, suggesting that respondents believed institutions successfully integrated their curricula with institutional and societal goals. The result corroborates the perspectives of Darling-Hammond et al. (2020) and Zhou et al. (2022), who emphasize that an effective curriculum should not only foster students' intellectual skills but also their ability to engage socially, equipping them to address real-life challenges. In the same manner, CHED CMO No. 46, s. 2012 enjoins outcome-based education to ensure that curriculum content is relevant and aligned to responsive national development priorities.

The average score of 4.20 for Teaching Methods is still classified within the 'High' range. Reported faculty teaching members were noted to use a variety of appropriate digital and active teaching methods. Freeman et al. (2020) and Bezanilla et al. (2021) emphasized that varied and student-centered techniques like "Inquiry-based or collaborative teaching approaches" foster more critical thinking skills and better academic performance. Equally, Purwanti and Vania (2021) argue that teaching intentionally has been linked not only to academic achievement but also to the learner's socio-emotional development and well-being.

Despite the excellence noted for the faculty members, Learning Resources and Instructional Facilities received a slightly lower mean of 3.67, which still falls within the "High" category. This indicates a disparity in the adequacy and level of instructional support infrastructure, which may be a potential barrier to achieving optimal instructional effectiveness. Schleicher (2019) and Yunita et al. (2024) pointed out that access to current technology-enhanced facilities and well-maintained classrooms significantly contributes to students' engagement and learning outcomes. The score may reflect a lack of digital or physical infrastructure, which is frequently encountered in developing regions.

The average score of 4.13 received in Faculty Qualifications indicates that the respondents have faculty members at their institutions who are qualified both in their disciplines and professionally. This is supported by faculty and professional development literature, as in Hanushek (2020) and Nilsen & Gustafsson (2019), which assert that faculty professional preparation has a considerable influence on student performance and the quality of instruction. Nonetheless, it is important to mention other studies, for example, Hufana (2019), where it was noted that although faculty members demonstrate a high level of professionalism, there is a lack of organizational commitment in terms of providing adequate support for postgraduate training and research which may undermine long term improvement in instruction.

In summary, the Arts and Sciences Programs are characterized by effective and responsive teaching, which justifies the "Very High" rating given. At the same time, the rating signals an urgent need to improve and make strategic investments in infrastructure, technology adoption, and faculty training and scholarship to enhance teaching performance and maintain high standards. Education extends far beyond content, as UNESCO (2022) notes, encompassing not only deliverables but also providing adaptive, learner-friendly systems that evolve alongside learners.

Table 2. *Extent of Fulfilling the Fourfold Functions of Higher Education in Terms of Research*

Indicators	Mean	Verbal Interpretation
1. Research Output	4.01	High
2. Funding and Grants	3.89	High
3. Collaboration and Partnerships	4.15	High
4. Faculty and Student Involvement	3.98	High
Mean	4.01	High

Legend:4.21 - 5.00 (Very High);3.41 - 4.20 (High);2.61 - 3.40 (Moderate);1.81 - 2.60 (Low);1.00 - 1.80 (Very Low)

The Research function received an overall mean score of 4.01, placing it in the "High" category. This figure supports that research is practiced and valued within the Arts and Sciences programs of accredited higher education institutions in the Caraga Region. Notably, Collaboration and Partnership achieved the highest indicator mean of 4.15. It is also noteworthy that Research Output was rated at 4.01, reflecting a rising appreciation for inter-institutional collaboration and scholarly output. On the contrary, Faculty and Student Involvement, as well as Funding and Grants, received relatively lower scores of 3.89, which show essential deficits in active participation as well as in available resources and support.

These results reflect the institutions' initiatives to establish research networks and involve outside stakeholders (Singh & Kaundal, 2022; Graham et al., 2019). These authors point out that "productive" research environments tend to have robust industry-academe linkages and cross-sectoral collaboration. It is essential to note that, although this rating is favorable, the slightly lower rating than "Very High" suggests that numerous partnerships may be shallow and structurally constrained in terms of tangible outcomes.

The Research Output indicator noted as "High" alongside other outputs, confirms that relevant scholarly work is being produced. This aligns with Rodriguez-Castro and Aparicio (2021), who pointed out that research productivity is a direct indicator of institutional capabilities, mentorship frameworks, and incentive structures. Nonetheless, the sustained impact of these publications overwhelmingly hinges on whether sustained access to ideal platforms is available and whether the institution cultivates a robust research culture, as Wieman (2019) has highlighted.

In contrast, Faculty and Student Involvement in Research received a rating of 3.89, highlighting a positive gap in engagement at the operational level. This corroborates the more general findings from Bercasio (2021), who noted that although there is an expectation for faculty to perform research, many are severely constrained by time, training, and motivation. Moreover, students may lack the institutional scaffolding to engage in meaningful research activities. As noted by Griffin et al. (2024), purposeful engagement is more than incentivized—shifting the paradigm requires systems that blend teaching, mentoring, and consulting, where research is embedded into the curriculum.

Similarly, Funding and Grants, which also holds a rating of 3.89, remains a perennial challenge. As noted by Phan et al. (2022), chronically underfunded research contexts in developing areas hinder inquiry in terms of scope, continuity, and impact. Although attempts to alleviate this through programs like CHED's Grants-in-Aid exist, inequities in access and the bureaucratic structure of fund distribution often impede their optimal appropriation. Ambong et al. (2020) underscore the importance of strategic planning and internal funding structures in sustaining research activity beyond the capture of competitive external grants.

In conclusion, it can be observed that while the institutions demonstrate commendable existing engagement with research, there are institutional limitations that

hinder more holistic, inclusive, and sustained engagement with research practices. Improving internal research support systems, increasing access to funding, and embedding research within faculty and student developmental frameworks are foundational primary steps to strengthening the Research function. As emphasized by CHED and UNESCO, the transformative potential of research within higher education is accessed when it is sufficiently funded, participatory, and integrated into the institutional framework.

Table 3. *Extent of Fulfilling the Fourfold Functions of Higher Education in terms of extension*

Indicators	Mean	Verbal Interpretation
1. Community Outreach Programs	4.16	High
2. Stakeholder Collaboration	4.13	High
3. Student and Faculty Participation	3.88	High
Mean	4.06	High

Legend:4.21 - 5.00 (Very High);3.41 - 4.20 (High);2.61 - 3.40 (Moderate);1.81 - 2.60 (Low);1.00 - 1.80 (Very Low)

The Extension function garnered an average score of 4.06, which suggests a “High” degree of compliance by accredited higher education institutions (HEIs) in the Caraga Region. This demonstrates the full commitment of the institutions to community engagement, which is one of the core essentials of the Fourfold Functions. The respondents appreciated the outreach and developmental work of the HEIs, which goes beyond the classrooms.

Among the indicators, Stakeholder Collaboration had the highest score at 4.13, while Community Outreach Programs scored a mean of 4.05. These scores indicate that institutions are establishing active, meaningful connections with external community partners and addressing localized community needs. These results corroborate those of Holmes et al. (2022), which emphasize the need for all-inclusive, multi-stakeholder partnerships for the effective design and implementation of extension programs. Comprehensive collaboration with local government units (LGUs), civil society, and industry strengthens the relevance and sustainability of outreach activities.

The noteworthy score earned for Community Outreach Programs demonstrates that activities are being undertaken in the areas of health, livelihood, environment, and education, aligning with the CHED guidelines on extension programs serving the public good. These activities align with UNESCO's assertion regarding the contribution of higher education to achieving the Sustainable Development Goals (SDGs) through social responsibility and civic engagement.

The lower score, albeit still in the “High” range, for Student and Faculty Participation at 3.88, indicates an absence of active involvement in grassroots-level work, which may result from organizational and practical factors such as time, workload, and inadequate support frameworks. Adams & Blair (2019) and Sawant (2023) have noted that, despite strong motivation and awareness, participation is often low due to a lack of facilitating structures, such as orientation, training, or academic incentives.

The conclusion drawn from the findings reinforces the assertions made by Trinh (2023) and Salazar (2020) regarding the need for feedback mechanisms that are balanced with experiential curriculum design to maximize the utility of extension programs. They suggest that instructional design frameworks that emphasize reflection and incorporate participants—students and faculty—into the design and evaluative phases produce better results for learning the material and subsequently, its impact on society.

In summary, the Extension function's rating suggests that higher education institutions within the Caraga Region are responsive to their civic engagement mandate. Moving from compliance to transformative engagement, however, requires deeper institutional support for faculty and student participation. This includes provision of training with reward systems, appraisal feedback, academic credit for engagement service, outreach integration with course design, and robust evaluation frameworks. Such institutional frameworks are critical, as emphasized by CHED (2016) and Farnell (2020), in fostering a culture of strategic and sustainable engagement.

Table 4. *Extent of Fulfilling the Fourfold Functions of Higher Education in terms of Production as to Innovation and Product Development*

Indicators	Mean	Verbal Interpretation
1. The Institution promotes innovation-driven research among faculty and students, leading to new technologies, methodologies, and solutions.	3.97	High
2. Research findings and creative outputs are transformed into practical applications, performances, or exhibits.	3.85	High
3. Product development initiatives are supported through funding, incubation, and mentorship programs.	3.78	High
4. The institution has established policies for patenting, intellectual property rights, and technology transfer.	4.05	High
5. Faculty and students collaborate with industry and government agencies for innovation projects.	3.77	High
6. Innovations developed by the institution contribute to societal needs and sustainable development.	3.83	High
Mean	3.88	High

Legend:4.21 - 5.00 (Very High);3.41 - 4.20 (High);2.61 - 3.40 (Moderate);1.81 - 2.60 (Low);1.00 - 1.80 (Very Low)

The lowest mean score among the four functions was production, which received a score of 3.88, still in the "High" category. This score indicates that, although higher education institutions (HEIs) in the Caraga Region value and understand the need for

innovation, entrepreneurial activities, and productivity, these efforts are still in the early stages of practical implementation.

The indicator, “The institution has established policies for patenting, intellectual property rights, and technology transfer,” received a score of 4.05, suggesting that HEIs have taken the initial steps by formulating policies to foster innovations. This supports the assertions made by Hussinger and Carvalho (2021) and CHED’s Innovation Agenda (CMO No. 52, s. 2016), which underline the need for institutional policies designed to protect and commercialize intellectual property. Such policies are vital for motivating research translation, so that knowledge generated in HEIs can be applied to socio-economic and technological development.

The indicator “Faculty and students collaborate with industry and government agencies for innovation projects" receives the lowest mean of 3.77, suggesting an enduring gap between practice and policy. This relates to an issue described by Quitoras & Abuso (2021) and Corsino & Torrisi (2023)—that internal policies on innovations exist, but the capability to mobilize meaningful, active, and continuous collaborations with external institutions is severely constrained. Many of these gaps are due to a lack of operational frameworks, such as innovation hubs, incubators, or even functional offices for industry-academic partnerships.

In this regard, the center of the problem lies not in the lack of policies but rather in their inability to convert them into an effective impact strategy for robust innovation ecosystems. Paris Baltov (2024) suggests that, according to the quadruple helix model, innovation is most fruitful when there is close collaboration among academia, industry, government, and civil society. In the absence of formal structures, such as mentoring schemes, seed funding, or tech incubation facilities, the participation of faculty and students in innovative activities may tend toward ad-hoc, project-centered approaches rather than becoming systematic.

Furthermore, Ramamonjisoa (2024) emphasizes the importance of integrating innovation within the curriculum development framework, utilizing project-based learning and entrepreneurship courses to enable students to address real-world challenges. The relatively low collaboration score may be due to these efforts being limited, especially within non-STEM disciplines, which are often neglected by innovation agendas.

To this end, although the existence of IP and technology transfer policies is a positive development, higher education institutions (HEIs) need to strengthen their institutional capabilities to sustain innovation activities. This involves setting up innovation hubs, improving industry-academe relations, and providing systematic subsidization for faculty and students on entrepreneurial projects. As noted by Goulart et al. (2021) and Szilágyi and Dudok (2023), innovation, in the absence of operational infrastructure and stakeholder collaboration, will persist more as a vision than a reality.

Table 5. *Overall Summary on the Extent of Fulfilling the Fourfold Functions of Higher Education*

Indicators	Mean	Verbal Interpretation
1. Instruction	4.09	High
2. Research	4.01	High
3. Extension	4.06	High
4. Production	3.88	High
Mean	4.01	High

Legend:4.21 - 5.00 (Very High);3.41 - 4.20 (High);2.61 - 3.40 (Moderate);1.81 - 2.60 (Low);1.00 - 1.80 (Very Low)

The integrated analysis regarding the fulfillment of the Fourfold Functions within the Arts and Sciences programs of accredited higher educational institutions (HEIs) in the Caraga Region showed consistent “High” ratings across all four domains. The Instructional domain received the highest mean score of 4.09, indicating strong adherence to curriculum development, faculty selection, and the teaching methods employed. This suggests that instructional delivery is a well-defined, mature, and prioritized component across the institutions studied.

The extension followed, with a mean score of 4.06, indicating solid achievement in community engagement and collaboration with stakeholders. Research received a mean of 4.01, which was also interpreted as “High.” While this denotes a commendable culture of research among faculty and students, it may also suggest that there is a need for more collaborative funding, mentorship, and institutional support structures to enhance research activity.

Production emerged as the least fulfilled function, with a score still in the "High" category. The mean score of 3.88 indicates an insufficient focus on fostering innovation, utilizing intellectual property, and generating revenue. These lower scores are consistent with challenges known in the institution-based consolidated functions of production, especially in regionally limited contexts where industrial connections and technological infrastructure tend to be sparse.

The overall mean of the four functions was 4.01, indicating that Higher Education Institutions (HEIs) in Caraga are generally performing well in fulfilling their designated roles. However, there is still room for improvement in developing integrated frameworks that systematize support for research and production on a large scale. This aligns with existing literature, which indicates that instruction tends to be the best-developed function in most higher education institutions (HEIs) in the Philippines. At the same time, production remains the most underserved and challenging function.

Consolidated data serves as a reliable benchmark for institutional planning and strategy development, clearly illustrating areas of effectiveness alongside those needing targeted interventions. These results support previous literature stating that Instruction tends to be the most sophisticated function developed within higher education institutions (HEIs), due to robust planning and faculty participation. Nevertheless, the relatively lower

scores in Production corroborate the findings of Quitoras and Abuso (2021) and Hussinger and Carvalho (2021), who studied regional institutions and highlighted the absence of activation frameworks for innovation and commercialization. The gaps in funding and collaboration, however, Phan et al. (2022) and Wieman (2019) conclusively stated that there is a need for stronger institutional reforms to enhance the research functions of the institutions.

RECOMMENDATION

Drawing from the conclusions of this study, it is suggested that the following measures be taken to improve the implementation of the Fourfold Functions in Arts and Sciences programs within HEIs of the Caraga Region:

- Improve physical facilities and add comprehensive systems of instructional technology in schools where resources for teaching and space for instruction are scarce.
- Set up institutional research grants and mentorship schemes to nurture research capacity in faculty and students to promote interdisciplinary collaborations, self-driven studies, and cross-disciplinary collaborations.
- Establish more robust Extension Offices with defined impact objectives, coupled with incentives for faculty and student engagement, to enhance sustained participation in community outreach services.
- Activate innovation hubs and technology transfer offices in the regions to enhance support for the performing function, which includes creating projects and ventures, as well as developing income-generating projects and intellectual property initiatives.
- Incorporate trainings about all Fourfold Functions as part of faculty professional development so that faculty workload, trainings, and peer review mechanisms incorporate comprehensive contributions to instruction, research, extension, and production.
- Enhance cooperation with industry, local government units, and non-governmental organizations to achieve a better integration of research, practical training, and community-sustained extension and production work, while sustaining both extension and production outcomes.

The implementation of these recommendations is expected to promote balance and sustainability in the delivery of the Fourfold Functions, while enhancing the relevance, quality, and impact of the Arts and Sciences programs in the region.

CONCLUSION

This study evaluated the effectiveness of Arts and Sciences programs in accredited higher education institutions (HEIs) in the Caraga Region in meeting the Fourfold Functions. According to the findings, Instruction, as a function, yields the strongest results, while

Research and Extension show moderate fulfillment, accompanied by notable difficulties. Production lags the furthest behind, needing greater innovative institutional support for the development of activities aimed at generating revenue.

The descriptive analysis, which reinforces each function and articulates their interrelationships, provides a coherent snapshot of the strengths and gaps that shape the functions, aiding in the refinement of policies and programs for the future. This study could be furthered through qualitative collection techniques that would uncover deeper institutional challenges grounded beyond self-reported metrics.

To conclude, these findings provided meaningful and actionable recommendations for achieving enhanced functional performance and furthering the strategic objectives of higher education in the region.

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