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**Components of Professional Development as Predictors of Academic Research Productivity
in Universities in Anambra State**

By

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Abstract

This study examined components of professional development as predictors of academic staff research productivity in universities in Anambra State, Nigeria. Anchored on Human Capital Theory, the study adopted a correlational research design. The population comprised 3,276 academic staff from Nnamdi Azikiwe University and Chukwuemeka Odumegwu Ojukwu University, with a sample of 356 selected through multi-stage sampling. Data were collected using the Professional Development Questionnaire (PDQ) and Academic Staff Research Productivity Questionnaire (ASRPQ), and analysed using multiple regression and ANOVA. Findings revealed that professional development components—research grants, fellowship programmes, sabbatical leave, workshops, and conference attendance—jointly have a strong and significant predictive value ($R = 0.846$; $R^2 = 0.715$) on research productivity. Workshops and conferences were the strongest predictors. The study concluded that effective professional development programmes significantly enhance research productivity and recommended increased funding, strengthened fellowships, and greater participation in research-focused activities.

Keywords: Professional development, research productivity, academic staff, universities, etc

Introduction

Universities occupy a central position in national development as intellectual hubs where new ideas are generated and established knowledge is preserved. As institutions of higher learning, the core objectives of universities include teaching, research, the dissemination of existing and emerging knowledge, community service, and the preservation of knowledge (Ezeani, 2024). The primary mission of universities is not only to transmit knowledge that shapes

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individuals' mindsets but also to generate new knowledge that contributes to the expansion of the existing knowledge base. Academic staff who are also seen in this work as lecturers play an integral role in the universities input-output value chain. Besides teaching, they also engage in several result-oriented outcomes that include community service and research (Ezeani, 2024). Efficient lecturers contribute to produce research outcomes, just as research outputs inform and strengthen knowledge-driven community service. Eruanga (2021) noted that research constitutes a defining feature that distinguishes universities from other tertiary institutions. Particular emphasis is placed on both basic research, which seeks to create new knowledge and applied research, which focuses on addressing practical and production-related challenges through innovative discoveries that enhance research productivity.

Professional development refers to the deliberate and ongoing activities through which academic staff acquire new knowledge, refine their skills, and build competencies that enhance their effectiveness in teaching, research, and community service. In universities, some of the professional development programmes employed to enhance academic staff research productivity include access to research grants, participation in fellowship programmes, sabbatical leave, exchange programmes, workshops, and attendance at professional conferences (Omenyi and Odok, 2023; Nzeakor, Anuonye, and Obioma, 2024; Ezeani, 2024). Within the context of this study, professional development for academic staff focuses on five key indicators: access to research grants, fellowship programmes, sabbatical leave, workshops, and attendance to professional conferences. These indicators were selected because they directly support research

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capacity development by providing academic staff with funding, advanced training, scholarly exposure, collaborative opportunities, and dedicated time for research, all of which are critical determinants of sustained research productivity in universities.

Despite the recognized importance of research productivity in universities and other institutions of higher learning, some academic staff, particularly in universities in Anambra State, appear to produce fewer publications and engage less in impactful research activities than expected. Perhaps, this explains the low ranking of public universities in Anambra State in global University ranking databases. It has also been pointed out that the quantity and quality of research output from African Institutions in general, and Nigerian institutions in particular, are relatively poor and may not significantly influence national development (UNESCO, 2021; World Bank, 2020). It is worrisome that some academic staff fail appraisal due to poor research productivity, remaining in the same academic rank for extended periods or lacking sufficient publications for evaluation (Chukwu, Nwagba, Obuzor, and Scent, 2020). This low research output raises concerns about the factors limiting academic staff productivity and suggests that existing professional development programmes may not be adequately structured or effectively implemented. It could be that insufficient professional development opportunities such as limited access to research grants, fellowships, workshops, sabbatical leave and professional conference are contributing to the observed gaps in research productivity.

Existing studies have examined academic staff research productivity using various variables and indicators. However, professional development appears to have been largely overlooked as a factor that may contribute to the low levels of research productivity observed in universities in Anambra State. Professional development activities, such as access to research

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grants, participation in fellowship programmes, sabbatical leave, workshops and professional conferences, are critical in enhancing the skills and knowledge of academic staff. Without adequate professional development, university academic staff may struggle to keep up with emerging research methodologies, secure funding and engage effectively in scholarly activities. This, therefore, leaves a gap that this study sought to close by examining professional development as a predictor of academic staff research productivity in universities in Anambra State, Nigeria.

Research grants are competitive financial awards provided to scholars or institutions to support systematic investigation and knowledge production. Asiyai (2019) explained that in the Nigerian university system, financial resources constitute a critical institutional input that sustains academic processes, research continuity and innovation. Studies within the Nigerian context indicate that limited access to research grants remains a major constraint to university research productivity. Asiyai and Oghuvbu (2018) reported that inadequate funding significantly hampers lecturers' ability to undertake rigorous research, leading to low publication output and limited innovation. Similarly, Aina and Olorunsola (2020) noted that universities with better access to competitive research grants recorded higher levels of research engagement and interdisciplinary collaboration among academic staff. According to Ogbogu (2021), research funding promotes university industry linkages by facilitating knowledge transfer, applied research and problem-oriented studies that address national development needs. Sponsored research projects also expose academics to emerging research ideas, methodologies and practical challenges that shape future research agendas.

From the perspective of Nigerian academics, access to grants serves not only as a source

of financial support but also as a motivation for research engagement and professional development. Ofoegbu, Onyekachi and Eze (2022) observed that academic staff who benefitted from research grants demonstrated higher levels of research commitment, collaborative publishing and innovation orientation compared to their counterparts without grant support. Access to research grants remains a crucial determinant of research productivity, innovation and knowledge dissemination in universities.

Fellowship programmes are structured academic development initiatives designed to provide scholars with financial support, protected research time, mentorship and professional training to enhance scholarly productivity. In university systems, fellowships are particularly important because they allow academic staff to temporarily reduce teaching and administrative responsibilities in order to concentrate on intensive research activities (Asiyai, 2019). In Nigeria, fellowship programmes are increasingly recognized as strategic mechanisms for strengthening research capacity and promoting knowledge production in higher institutions (Ogbogu, 2021). Through fellowships, academic staff are exposed to advanced research environments that promote innovation, critical inquiry and sustained scholarly output. Studies have shown that lecturers who participate in structured research training programmes demonstrate improved publication rates and stronger engagement in scholarly activities (Ofoegbu and Nwadiani, 2021). These skill-oriented components of fellowships empower academic staff to design rigorous studies and publish in reputable local and international journals.

At the institutional level, fellowship programmes play a catalytic role in strengthening universities' research capacity and societal relevance. Academic staff who benefit from

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fellowships often transfer acquired skills and innovative practices to their departments and institutions through teaching, supervision and collaborative research initiatives. This multiplier effect enhances institutional research productivity, supports evidence-based policymaking and reinforces the role of universities as centres of innovation and national development (Saint et al., 2020). Therefore, fellowship programmes remain critical instruments for advancing both individual academic performance and the broader research mandate of universities.

Sabbatical leave is a structured and extended period of leave granted to academic staff from their full-time professional duties, primarily for the purpose of research, professional development and academic exchange. It is an established exchange programme enjoyed by academic staff in well-structured organizations at specific stages of their careers. Through sabbatical programmes, academic staff are afforded opportunities to exchange ideas, share experiences and engage in intellectual collaboration with counterparts in other universities, thereby promoting professional growth and institutional development. As a form of professional development, sabbatical leave enables academics to enhance staff efficiency and productivity in line with institutional goals.

As a widely recognized, sabbatical leave plays a crucial role in enhancing teaching quality, expanding scholarly output, strengthening academic programmes and promote institutional commitment among academic staff. Wilderman (2021) affirmed that sabbatical leave contributes significantly to lecturers' sense of belonging, loyalty and long-term commitment to their universities. Academic staff on sabbatical often pursue clearly defined professional goals that support personal academic advancement while simultaneously

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contributing to institutional growth through improved teaching practices and research outcomes.

Unlike other forms of leave, sabbatical leave requires a specified period of prior continuous service and a formal commitment to return to the home institution upon completion. Beneficiaries are also required to submit comprehensive reports of activities undertaken during the sabbatical period. This accountability framework enhances institutional trust, reinforces staff loyalty and maximizes the effectiveness of sabbatical leave as a tool for professional development. As Ezeani (2024) observed, sabbatical leave occupies a justified and enduring place in higher education due to its positive impact on faculty development and lifelong academic careers.

Workshops constitute a vital component of professional development programmes for academic staff in universities, particularly in enhancing research capacity and productivity. Unlike general training sessions, workshops are usually designed as intensive, hands-on learning forums that focus on specific academic and research-related skills. Through workshop participation, academic staff are exposed to practical approaches to research design, data analysis, academic writing and publication strategies. These engagements enable lecturers to refine their research competencies and address gaps in methodological knowledge. Obi (2019) noted that workshops promote professional growth by enabling participants to acquire relevant skills that are directly applicable to their academic responsibilities. As a result, workshops serve as effective platforms for strengthening research output in universities. Workshops play a critical role in updating academic staff on emerging research tools, digital technologies and contemporary analytical techniques. In the era of rapid technological advancement, workshops focusing on statistical software, data management systems and online research platforms have

become increasingly important. Agba (2015) observed that continuous retraining enhances lecturers' competence and confidence in using modern research tools. When academic staff are proficient in these tools, they are better positioned to conduct rigorous research and produce high-quality scholarly outputs. Consequently, workshops contribute directly to improved research efficiency and productivity in universities.

In addition to skill acquisition, workshops serve as motivational platforms that enhance academic staff commitment to research activities. Participation in well-structured workshops often renews lecturers' interest in scholarly inquiry and fosters a positive research culture within universities. Obi (2019) noted that professional development programmes, including workshops, serve as motivating factors that improve staff efficiency and engagement. Workshops also expose academic staff to current funding opportunities, collaborative grants and interdisciplinary research initiatives. These exposures increase the likelihood of securing research funding and expanding research portfolios, thereby enhancing overall research productivity.

Staff professional development through participation in professional and academic conferences constitutes a critical mechanism for enhancing the effectiveness and productivity of academic staff in universities. Beyond improving classroom instruction, conferences serve as structured platforms through which academic staff refine their teaching strategies, engage with new instructional and research methodologies and acquire current knowledge and skills necessary for effective teaching and scholarly inquiry. Through sustained participation in conferences, university lecturers are exposed to emerging pedagogical practices, contemporary research trends and innovative methodologies, which collectively enhance their professional

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competence and research capacity. Obi (2019) observed that conferences contribute significantly to lecturers' professional growth and development by ensuring reflective practice and continuous learning.

Professional development programmes improve staff both academically and professionally and also serve as motivational factors that enhance efficiency and commitment to scholarly work. Conferences also feature keynote lectures delivered by distinguished scholars, panel discussions, roundtable sessions, poster presentations, and specialized workshops. Keynote lectures, which may last up to one and a half hours, provide in-depth insights into emerging research directions and policy issues within disciplines (Ogundane, 2019). Ideally, conferences promote scholarly dialogue among academics with similar research interests, facilitate collaboration, and support consensus-building on controversial academic issues (Obi, 2019). Poor participation in conferences has been linked to limited exposure to current research trends and deficiencies in instructional and research delivery (Allen, 2015). Evidence suggests that well-organized academic conferences significantly enhance research productivity, knowledge dissemination, and overall effectiveness within the university system (Obi, 2019).

Statement of the Problem

In an ideal university system, academic staff are expected to demonstrate consistently high levels of research productivity through the regular publication of quality scholarly works, active engagement in knowledge creation, and meaningful contributions to national and global development. Research productivity is widely regarded as a core criterion for academic appraisal,

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career progression, and the overall ranking and reputation of institutions in national and international contexts. Highly productive universities are often distinguished by robust research outputs, strong global visibility, and sustained institutional competitiveness.

Despite these expectations, the state of research productivity among academic staff in many universities, particularly public universities in Anambra State, remains concerning. Evidence indicates that some academic staff have not achieved the level of research output required for career advancement, as reflected in low publication rates, limited participation in impactful research, and constrained engagement with the wider academic community. This situation is mirrored in institutional performance, as exemplified by the low ranking of public universities in Anambra State, including Nnamdi Azikiwe University, in global assessments such as the Times Higher Education World University Rankings.

The persistent low research productivity suggests that the challenge extends beyond the mere availability of research resources and infrastructure. One key factor appears to be the nature and effectiveness of professional development opportunities available to academic staff. Inadequate or poorly structured professional development programmes encompassing limited access to research grants, fellowship programmes, sabbatical leave, workshops, and professional conferences may hinder lecturers' capacity to produce high-quality research outputs. It is plausible that the accessibility, scope, and quality of these interventions are insufficient to support academic staff in meeting the expected standards of research productivity. In view of these concerns, this study seeks to investigate professional development as a predictor of academic staff research productivity in universities in Anambra State, Nigeria.

The purpose of the study was to examine professional development as a predictor of academic staff research productivity in universities in Anambra State, Nigeria. Specifically, the study determined the joint predictive values of professional development components (research grants, workshops, fellowship programmes, sabbatical leave, and professional conferences) on academic staff research productivity in universities in Anambra State.

Research Question

The research question below guided the study:

1. What is the joint predictive values of professional development components (research grants, workshops, fellowship programmes, sabbatical leave, and professional conferences) on academic staff research productivity in universities in Anambra State?

Hypothesis

The null hypothesis below was tested at 0.05 level of significance.

There is no joint predictive values of professional development components (research grants, workshops, fellowship programmes, sabbatical leave, and professional conferences) on academic staff research productivity in universities in Anambra State.

Theoretical Framework

This study was hinged on the Human Capital Theory propounded by Schultz (1961). In 1961, an economist by name Theodore Schultz propounded a theory called Human capital theory. It is an economic based theory that focuses on human capital development. The theory has been advanced by other theorists like Micer 1974 and Becker 1993. Human Capital theory focuses on investing in education, training and skill development that enhance individual productivity.

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Theorists assume that investing in education is an important tool to acquire skills and training which enhances or increases the individual capital. This deliberate investment either by individual, parents, organization or the society as a whole will lead to economic growth and development, through increased productivity, social stability, healthier lifestyles, career progression, access to better paying jobs, reduced time spent in labour market. Education, training, and health lead to acquisition of knowledge, skills and experience that make them citizens.

Human Capital theory rests on the assumption that formal education is highly instrumental and necessary to improve the productive capacity of a population. In fact, the theorist is of the opinion that an educated population is a productive population. Human capital theory stresses how education increases the productivity and efficiency of workers including lecturers by increasing the level of cognitive stock of economically productive human capability which is a product of innate abilities and investment in bargain beings. The theorist emphasizes that training/manpower development of lecturers to acquire the basic skills enable the individual to compete with their contemporary in a new society and globe.

The implication of this theory to the present study is that academic staff must engage in continuous training, education, and skill development to achieve research productivity whether through publications in journals, books, conference proceedings, or technical reports necessary for career progression. This ongoing development, whether individually or institutionally sponsored, enables them to stay current with research trends, identify high-impact journals, and access research grants through digital resources. The theory also serves as a guide to the management of institutions to actively invest in academic staffs' professional development by

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Unizik Journal of Educational Management and Policy (UJOEMP), Vol 7, No. 2, April, 2026. ISSN: 2276-7630 providing training opportunities, supporting employees' pursuits of academic advance degrees or certifications and fostering continuous learning and skill enhancement by staying up to date with the latest trends, technologies among others. These also help to mitigate the depreciation of the workforce and ensure sustained productivity improvement. The university should strategically design and implement lecturers' training and development in the system. In view of this, the present study is anchored on the Human Capital Theory.

Methods

This study adopted correlational research design. The population of this study comprised 3,276 academic staff in the two public universities in Anambra State. The total population of lecturers in the two universities under study is 3,276. Nnamdi Azikiwe University has a total number of 2,609 academic staff while Chukwuemeka Odumegwu Ojukwu University has 667 academic staff as at October, 2025.

Taro Yamane's formula was used to select a sample size of 356 academic staff, 284 academic staff from NAU and 72 academic staff from COOU. Two questionnaires structured by the researchers were the instruments used for data collection. The first is "Professional Development Questionnaire (PDQ)" which was designed to collect data on the sub-scales of professional development. The second instrument "Academic Staff Research Productivity Questionnaire (ASRPQ)" was adapted from Blackburn and Lawrence (1995). The instrument was subjected to face validity to ensure that it measured what it was intended to measure by three experts and all their recommendations were carefully incorporated into the final instrument. The instruments were administered with the help of two research assistants.

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 Data collected were analysed using Statistical Package for Social Sciences Version 26, (SPSS:26). Multiple Regression was used to answer the research question while Regression ANOVA was used to test the hypothesis.

Results

Research Question: What is the predictive value of professional development components (research grants, workshops, fellowship programmes, sabbatical leave, and professional conferences) on academic staff research productivity in universities in Anambra State?

Table 1: Summary of the Multiple Regression Results of the Predictive Value of Professional Development Components on Academic Staff Research Productivity in Universities in Anambra State

	Unstandardized Coefficients		Standardized Coefficients	t	Decision
	B	Std. Error	Beta(β)		
(Constant)	-.210	.122		-1.720	Strong Positive Predictive Value
Access to Research Grants	-.225	.092	-.182	-2.437	
Fellowship Programmes	.165	.122	.142	1.353	
Sabbatical Leave	.075	.056	.062	1.347	
Workshops	.684	.093	.548	7.394	
Attendance at Professional Conferences	.374	.124	.323	3.027	

R= 0.846, R Square = 0.715, Adjusted R²= 0.711, F = 163.710.

Data in Table 1 presents the summary of the regression results of the predictive professional development components on academic staff research productivity in universities in Anambra State. The results revealed that the R= 0.846, R Square = 0.715, Adjusted R²= 0.711, F = 163.710. Professional development components have 71.5% predictive value for academic

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 staff research productivity in universities in Anambra State. This implies that professional

development components have a strong positive predictive value on academic staff research productivity in universities in Anambra State.

Test of Hypothesis

Hypothesis:

There is no joint predictive value of professional development components on academic staff research productivity in universities in Anambra State

Table 2: Summary of the Multiple Regression Results of the Joint Significant Predictive Value of Professional Development Components on Academic Staff Research Productivity in Universities in Anambra State

	Unstandardized Coefficients		Standardized Coefficients	t	P-Value	Decision
	B	Std. Error	Beta(β)			
(Constant)	-.210	.122		-1.720	0.000	Significant
Access to Research Grants	-.225	.092	-.182	-2.437		
Fellowship Programmes	.165	.122	.142	1.353		
Sabbatical Leave	.075	.056	.062	1.347		
Workshops	.684	.093	.548	7.394		
Attendance at Professional Conferences	.374	.124	.323	3.027		

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Data in Table 2 presents the summary of the multiple regression results of the joint significant predictive value of professional development components on academic staff research productivity in universities in Anambra State. The results revealed that the R= 0.846, R Square = 0.715, Adjusted R²= 0.711, F = 163.710. Professional development components have 71.5%

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predictive value for academic staff research productivity in universities in Anambra State. Moreover, the p-value (0.000) is below the 0.05 significance level. Thus, the null hypothesis was rejected, and the alternative hypothesis was retained. Hence, professional development components have significant predictive value on academic staff research productivity in universities in Anambra State. This implies that professional development components have a significant and strong positive predictive value on academic staff research productivity in universities in Anambra State.

Discussion of Findings

Findings on the joint predictive value of professional development components on academic staff research productivity in universities in Anambra State revealed that there is a joint positive predictive value of professional development components on academic staff research productivity in universities in Anambra State. The finding also revealed that there is a joint significant predictive value of professional development components on academic staff research productivity in universities in Anambra State. The findings agreed with Amie-Ogan and Pepple (2024) that revealed that multiple human capital development factors, including academic sabbatical programmes significantly improved the performance of academic staff. Rwothumio, Daniel and Usilfrida (2021) corroborated this finding by demonstrating that staff training, which encompasses various professional development components, showed moderate positive correlations with both teaching and research output. Similarly, Eneasator, Azunuike and Orji (2019) supported this finding by revealing that staff development programmes of the Tertiary Education Trust Fund (TETFund), which included multiple professional development interventions, significantly influenced the productivity and performance of academic staff higher

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institutions in Nigeria. The evidence across these studies demonstrates that professional development components work synergistically to enhance academic staff research productivity by providing financial resources through grants, offering dedicated time and collaborative opportunities through fellowships and sabbatical leave, equipping scholars with essential research skills through workshops and exposing them to cutting-edge developments through conference attendance. When academic staff have access to these combined professional development opportunities, they are better positioned to overcome research barriers, engage in scholarly activities, establish international collaborations and produce high-quality research outputs that promote both their individual academic profiles and their institutions' research reputation. To this end, professional development components have a joint significant and positive predictive value on academic staff research productivity in universities in Anambra State.

Recommendations

On the basis of the findings of this study, the following recommendations were made:

1. The government should increase budgetary allocations for research grants and create diversified funding sources for universities
2. University management should strengthen the existing fellowship programmes by increasing the number of available slots and providing funds for academic staff.
3. National Universities Commission (NUC) should mandate universities to establish transparent sabbatical leave frameworks with defined eligibility criteria.
4. Regular and targeted research-focused workshops that address critical areas of research writing and grant proposal development should be encouraged.
5. To strengthen conference attendance, universities should make it mandatory for academic

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staff to attend at least one national or international conference annually.

Conclusion

Professional development is an important determinant of academic staff research productivity and overall scholarly success in universities. Universities that prioritize comprehensive professional development programmes create enabling environments for academic staff to thrive in their research endeavors. Based on the findings of the study, it was concluded that professional development positively and significantly predict academic staff research productivity in universities in Anambra State.

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