

Enhancing educational research through collaboration: insights from Philippine centers of excellence

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ABSTRACT

With the increasing popularity of internationalization in higher education, research collaboration is essential for universities to compete for world university rankings. This popularity made the Philippines no exemption in conforming to the trend. However, the Philippine education system is facing an education crisis, noting the problem of research productivity in graduate education as highlighted by the Philippine government report, known as the EDCOM II report. To fill this gap, this study examines the Philippine research collaboration in the Philippine setting, particularly the center of excellence (COE) in teacher education institutions. The study utilized a bibliometric approach to analyze the research collaboration following two phases: global and local analysis. It analyzed data between 2014 and 2023 in 21 COE teacher education institutions recorded in SciVal. The findings reveal that the Philippines ranked sixth in international educational research collaboration, lagging behind Vietnam, Malaysia, Indonesia, Singapore, and Thailand. Europe has the highest number of countries collaborating with the Philippines, while Asia Pacific has the highest number of co-authored publications. Regarding the collaboration sector, academic-only collaboration is the most popular. Moreover, De La Salle University has the highest national collaboration, while the University of the Philippines has the highest international collaboration in educational research collaboration. This study provides a comparative analysis of research collaboration among COE in teacher education, offering insights for policy and internationalization strategies. Moreover, this study contributes to understanding the Philippines' research collaboration status, offering policy and practice recommendations for improvement.

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1. INTRODUCTION

The EDCOM II report, conducted by the Second Congressional Commission on Education, unveiled distressing issues plaguing Philippine higher education institutions (HEIs) [1], highlighting the existence of a failing Philippine education system, particularly in graduate education, research, and innovation, as one of the priority areas and issues. One of the specific challenges addressed by this priority is the insufficient ability of universities to conduct high-quality research [1]. Moreover, globalization has had a significant

impact on Philippine universities, influencing them to compete on a global scale. Nevertheless, several institutions oppose this trend because they raise concerns about fair access to government support and alignment with their institutional mission for internationalization [2]. To support the changes in higher education, the Philippine government enacted the Republic Act 11448 in 2019 (transnational higher education in the Philippines), and the Commission on Higher Education subsequently issued a memorandum introducing the “publish, or no degree” policy, known as the Commission on Higher Education Memo Order (CMO) 15 series of 2019 [3], [4], meaning that one of the major requirements and major outputs of graduate students is publication prior to graduation [5].

The Republic Act 11448, or ‘the transnational higher education act,’ allows Philippine universities to engage transnationally with foreign counterparts. This new law promotes research collaboration that aligns with the internationalization paradigm, as articulated in [6]. The new law signifies that the Philippines is engaged in the internationalization agenda. Furthermore, international linkages are one of the criteria for determining transnational higher-education quality [7]. Following the EDCOM II report, the transnational higher education act, and memorandum orders from the Philippine Commission on Higher Education (i.e., CMO 15 s 2019), the Philippines is moving forward in the internationalization of its higher education industry, supported by robust institutional support and adherence to global norms. Nonetheless, numerous challenges persist, especially regarding financial resources, access to research databases, and practical expertise in internationalization [8]–[10]. In China, government internationalization efforts have established various systems, such as Project 211 in 1993, Project 985 in 1998, and world class 2.0 in 2015 [11]. Similarly, in France, the government launched the French Excellence Initiative to combat the internationalization game [12]. In the United States, higher education policies promote four patterns: international education at home, foreign student recruitment, education abroad, and foreign institutional partnerships [13]. In the Philippines, the Commission on Higher Education provides guidelines on internationalization in the form of inter-university partnerships, networking, consortia, linkages, and twinning programs [14].

Since the creation of the higher education act of 1994, the Philippine government has recognized the importance of the center of excellence (COE) initiative in making Philippine universities globally competitive [15]. The COE initiative aims to enhance higher education quality, particularly in teaching, research, and extension, while contributing to nation-building and social progress. The Philippine Commission on Higher Education has published a roster of institutions designated as COE in various fields such as agriculture education, business and management, criminology, engineering education, health-related education programs, humanities, information technology education, science and mathematics, social sciences and communication, and teacher education. These ten fields have various disciplines associated with determining universities’ strengths. The COE award is rigorously evaluated by the commission based on its performance in teaching, research publications, extension, accreditations, national board exam ratings supervised by the Professional Regulation Commission (PRC), and other institutional benchmarks.

As of May 8, 2018, the commission officially recognized 15 public and 19 private HEIs as COE in teacher education [16]. These institutions are expected to conduct productivity research. Of the 39 universities, seven belong to the National Capital Region. However, out of the 17 regions in the Philippines, Eastern Visayas, Soccsksargen, and Central Mindanao, the Autonomous Region of Muslim Mindanao (also known as the Bangsamoro Autonomous Region in Muslim Mindanao) has no universities designated as the COE in teacher education. Despite the government’s efforts to create the COE initiative, it considered Philippine education as a ‘miseducation’ and a ‘failed system,’ making it necessary to examine the collaboration aspect in a diverse and geographically separated Philippines.

Collaborating on an international scale unites a variety of philosophical and methodological insights, enhances research capabilities, and fosters a comprehensive approach to tackling educational challenges [17], [18]. The findings suggest that different forms of collaboration, ranging from teacher-student to fellow workmates, substantially enhance the quality of educational research results. In particular, collaboration in small groups has demonstrated notable effectiveness [19]. Moreover, the importance of bringing the research and practice nexus could be made possible through research collaboration, making it realized in practical applications. By engaging practitioners and scholars, these collaborations cultivate trust and guarantee that research outcomes are pertinent and feasible in educational environments [20], [21].

Moreover, collaboration is essential in tackling global issues, such as climate change and resource management, by utilizing the collective expertise and strengths of governments, educators, and scholars [22]. Moreover, most collaborative engagement frequently emphasizes the concept of partnerships. Nonetheless, it questions the “partnership” approach to collaborative research efforts and suggests a comprehensive framework for its understanding and assessment. This indicates that a comprehensive understanding of collaboration is better aligned with the ideals of fairness and equity [23]. Thus, every collaboration requires an understanding of systemic conceptualization. Another study found that research-practice partnerships

(RPPs) between researchers and school districts could address the intricate challenges faced by educational institutions [24]. The nature of the research utilized in these collaborations affects how practitioners can leverage it through direct integration into practice (instrumental use), broadening awareness of educational challenges (conceptual use), or embracing research methodologies and processes to bolster practitioners' ability to enhance education (process use) [25].

In addition, research collaboration is relevant to internationalization. Aside from the home-based internationalization policy of the Commission on Higher Education [26], research collaboration is vital in the world-class initiative of the commission for global ranking. Numerous gaps and challenges impede productive research collaboration among universities in the Philippines, restricting their potential for significant academic and industrial outcomes. One significant challenge is the absence of cohesive web-based platforms that enable collaboration between universities, industries, and government stakeholders. This leads to missing opportunities and ineffective coordination [27]. The insufficient facilities and resources allocated to support research endeavors further exacerbate the situation. Many universities encounter infrastructure shortages, which hinder the capacity of both staff and students to participate in impactful research endeavors [28]. Furthermore, the lack of adequate training and development programs for the academic staff intensifies this issue. Without focused initiatives to improve research and supervision capabilities, the caliber of research results continues to be subpar, and collaborative endeavors are restricted [28], [29]. Moreover, this is attributed to a lack of a strong culture surrounding inquiry and innovation, resulting in diminished academic output and limited participation in collaborative efforts [30]. Recent studies have shown the position of the Philippines ranking between fifth and sixth by different scholars in terms of research productivity [5], [31]. Research on collaborations among teacher education institutions has revealed numerous gaps and areas that require further research. Despite various empirical studies, there is a significant absence of empirical data investigating the divide between educational research and practice, especially in the context of teacher-education institutions [5], [31], [32]. Furthermore, a significant portion of the current literature regarding research-practice collaborations predominantly centers on northern countries, such as the United States, with few studies undertaken in other areas. Broadening the scope of investigation beyond a US-centric viewpoint may provide significant insights into how various educational systems engage with and maintain these collaborations [33], [34]. Moreover, the current EDCOM II government report identifies priority areas 13, which focuses on graduate education, research, and innovation, and 15, which addresses the internationalization of higher education. It highlights the deficiencies in producing quality research within universities and the limitations faced in the internationalization of students and faculty, which implies the lack of collaboration locally and internationally [1]. Although research collaboration has been studied, little is known about research collaboration in the Philippine COE in teacher education. This study expanded the nuances identified by the EDCOM II report using a bibliometrics study through SciVal analytics to analyze national and worldwide Philippine research collaboration trends from 2014 to 2023. This study examines Philippine research collaboration at the Philippine COE in teacher education. This study seeks to answer the following research questions:

- What is the status of international research collaboration, types of collaboration, and current collaborators in the Philippines from 2014 to 2023?
- How have research collaboration patterns (e.g., national vs. international collaboration) evolved among Philippine COE in teacher education institutions from 2014 to 2023?

2. METHOD

The authors employed a bibliometric approach using SciVal, a web-based analytics tool powered by Scopus, to examine their claim [35]. This study examines Philippine research collaboration at the Philippine COE in teacher education. SciVal provides numerous benefits for bibliometric research by establishing itself as a crucial resource for evaluating research performance and informing the advancement of various disciplines. The platform offers an in-depth assessment of research accomplishments, including metrics such as total research output, popular research themes, collaboration patterns, individual author contributions, and the wider societal effects of research endeavors. This comprehensive examination allows organizations to recognize their advantages and highlight aspects that need enhancement, thereby promoting a data-informed strategy for advancing research initiatives [36]. Utilizing its comprehensive database, SciVal provides practical suggestions for improving the research outcomes. These include recommendations for enhancing thematic diversity within research portfolios and promoting robust international collaboration to broaden global research networks [37].

In exploring Philippine research collaboration, the researchers explored two phases of the analysis. The first phase is the exploration of Philippine research collaboration in general, compared with other countries in Southeast Asia, the type of research collaborations engaged in the Philippines, and the continents with which the Philippines currently collaborate. The second phase was the National and International

Research Collaboration of the Philippine COE teacher education institutions. The researcher selected COE teacher education institutions mainly for their world-class construction initiatives, which were prescribed by law. This is similar to the initiatives of other countries, such as Project 985 of China and the French Excellence Initiative of France.

The timeframe for the data collection was from 2014 to 2023. The researchers chose 10 years to observe the growth of collaboration in educational research. This study focuses only on educational research. However, the researchers were aware of the limitations of the study because it only utilized SciVal, which relied only on Scopus data, resulting in the omission of papers indexed in other databases, such as Web of Science or Google Scholar, thereby leading to an incomplete assessment of research impact [38]. Despite its limitations, researchers believe that the metrics generated in SciVal offer insights into improving research collaboration, particularly in the context of COE teacher education institutions in the Philippines. Moreover, popular rankings, such as the Times Higher Education (THE) and Quacquarelli-Symonds (QS) rankings, employed Scopus data for ranking.

Among the 34 HEIs in the Philippines, only 21 have been documented by Scopus SciVal because of the threshold for the number of papers required in each institution or the existence of the Scopus organization profile. Moreover, 21 universities reported engaging in nationwide, national, and international research collaborations for educational research. Data were extracted in October 2024. This study did not involve human participants, in compliance with the Helsinki Declaration of Ethics for research.

3. RESULTS AND DISCUSSION

This study examined Philippine research collaboration at the Philippine COE in teacher education. It follows two phases. The first phase explores Philippine research collaboration in general in comparison with other countries in Southeast Asia, the type of research collaborations engaged in in the Philippines, and the continents with which the Philippines is currently collaborating. The second phase examines the National and International Research Collaboration of the Philippine COE teacher education institutions. It utilizes Scopus data and SciVal analytics to generate results.

3.1. The Philippines and other Southeast Asian countries international research collaboration

With the demand for international league tables, such as the QS ranking and THE, the authors examined the Philippines' international collaboration based on educational research by publication year compared to other Southeast Asian countries to determine how international collaboration changed between 2014 and 2023. Despite Indonesia being the region's top producer of educational research [5], Figure 1 shows that Malaysia has led significantly in international collaborations, with a steep upward trend, especially from 2019 onwards. By 2023, Malaysia surpassed 774 collaborations, increasing its engagement with Southeast Asia's international research partnerships. Indonesia and Singapore followed, both showing consistent growth. Indonesia has been marked by an upward trajectory since 2017, whereas Singapore has had an unstable collaboration pattern since 2016. Thailand and Vietnam have moderate collaboration counts, with a steady increase over the years, reflecting steady but less intense international collaboration than Malaysia and Indonesia. The Philippines, Brunei Darussalam, Cambodia, Myanmar, and Laos showed lower collaboration levels, with relatively slow growth over the years. Moreover, the Philippines stands out with a gradual increase, nearing 150 collaborations by 2023, whereas other countries (Brunei Darussalam, Cambodia, Myanmar, and Laos) remain under 50 collaborations. Interestingly, in 2016, the Philippines and Vietnam began a similar international collaboration pattern. However, the Philippines lagged behind Vietnam from 2018 to the present, whereas Malaysia, Indonesia, Singapore, and Thailand increased their international collaboration.

3.2. Philippine research collaboration: a decade in review

Table 1 illustrates the various types of collaboration in the Philippines between 2014 and 2023. The decade-long data demonstrate an upward trend in research collaborations in the Philippines' educational research, driven mainly by academic-only collaboration, with a total of 1,598 collaborations, representing approximately 95.2% of all recorded partnerships. Academic-government partnerships have emerged as strong secondary contributors, with 62 recorded collaborations, accounting for 3.7% of the total. Unfortunately, the relatively lower engagement with academic-corporate collaboration, with a total of 15 collaborations (0.9% of the overall total), with a significant increase from 2020 onwards, and academic-medical collaboration sectors with 17 recorded collaborations (1.0% of the total), with fluctuating yearly contributions, highlight an area for potential development. Finally, other academic collaborations recorded only eight collaborations with minimal growth over the decade.

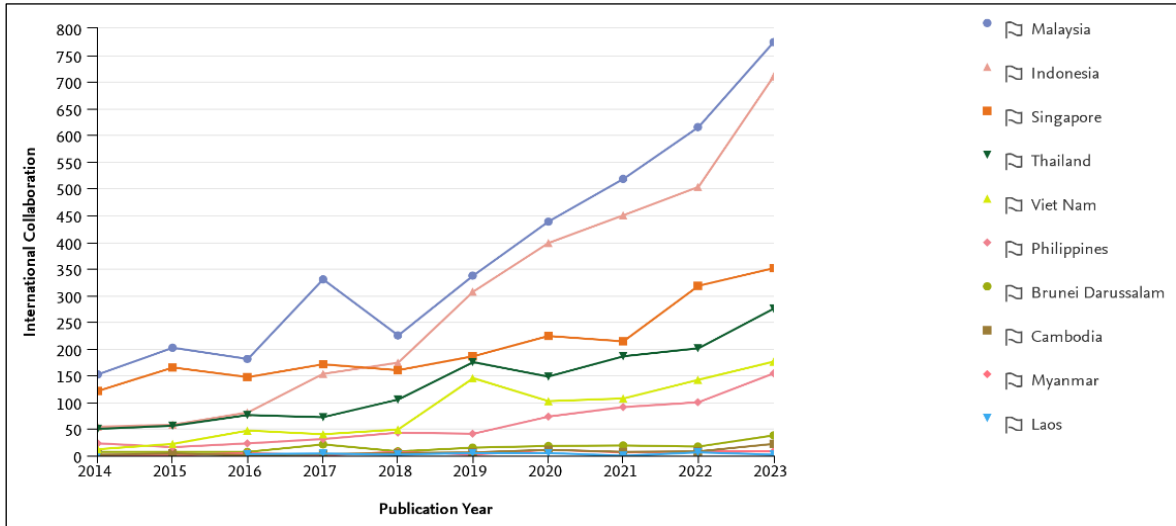


Figure 1. International research collaboration in the education discipline by publication year (generated by SciVal)

Table 1. Types of collaboration between 2014 and 2023											
Type of collaboration	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Overall
Academic-corporate collaboration	0	0	0	0	1	2	6	2	1	3	15
Academic-government collaboration	2	0	2	3	8	7	12	8	8	12	62
Academic-medical collaboration	0	2	0	1	1	2	3	3	1	4	17
Academic-other collaboration	0	0	2	1	1	0	1	2	0	1	8
Academic only collaboration	42	52	48	110	129	156	195	247	275	344	1,598
Total	44	54	51	114	138	165	212	258	283	359	1,678

Figure 2 illustrates the global distribution of current collaborations in educational research between 2014 and 2023, encompassing 119 collaborating countries or regions with a total of 594 co-authored publications. Europe led 37 collaborating countries and 123 co-authored publications, demonstrating extensive research activity based on geographic location. The Asia-Pacific region has 26 collaborators and 406 co-authored publications, whereas Africa has 21 collaborators and 45 co-authored publications. North America and the Middle East have similar current collaborations with 12 collaborating countries, with 179 co-authored publications in North America and 71 publications in the Middle East. Lastly, the Philippines engaged less in South America, with 11 collaborating countries or regions and 37 co-authored publications.

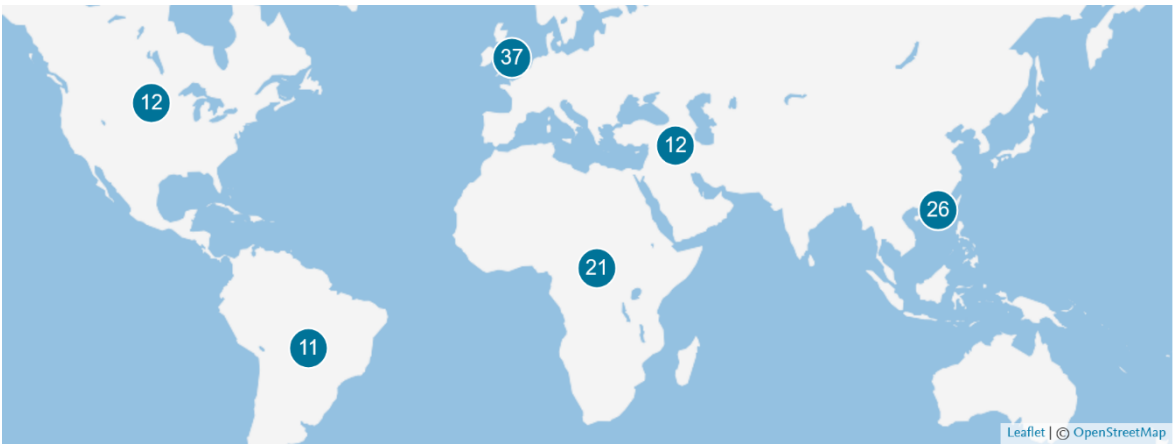


Figure 2. Current collaborators by continent between 2014 and 2023 (generated by SciVal)

3.3. Center of excellence in teacher education universities by national collaboration

Figure 3 shows the national collaboration of 21 COE in teacher education based on the number of publications per year. De La Salle University-Manila (DLSU) stands out with significant fluctuations but leads in national collaborations, reaching peaks in 2017 and 2021, with collaboration counts of approximately 23-29. The University of the Philippines (UP) shows consistent growth in national collaborations, with a steady upward trend, particularly from 2017 onwards, reaching a notable count in 2023. The Philippine Normal University (PNU) and the University of Santo Tomas (UST) have exhibited moderate but steady growth in national collaboration. Other universities, such as Cebu Normal University, West Visayas State University, and Central Luzon State University, have shown gradual increases with occasional peaks. The remaining institutions display lower and unstable national collaboration movements, including Far Eastern University, Pangasinan State University, and Mindanao State University – Iligan Institute of Technology.

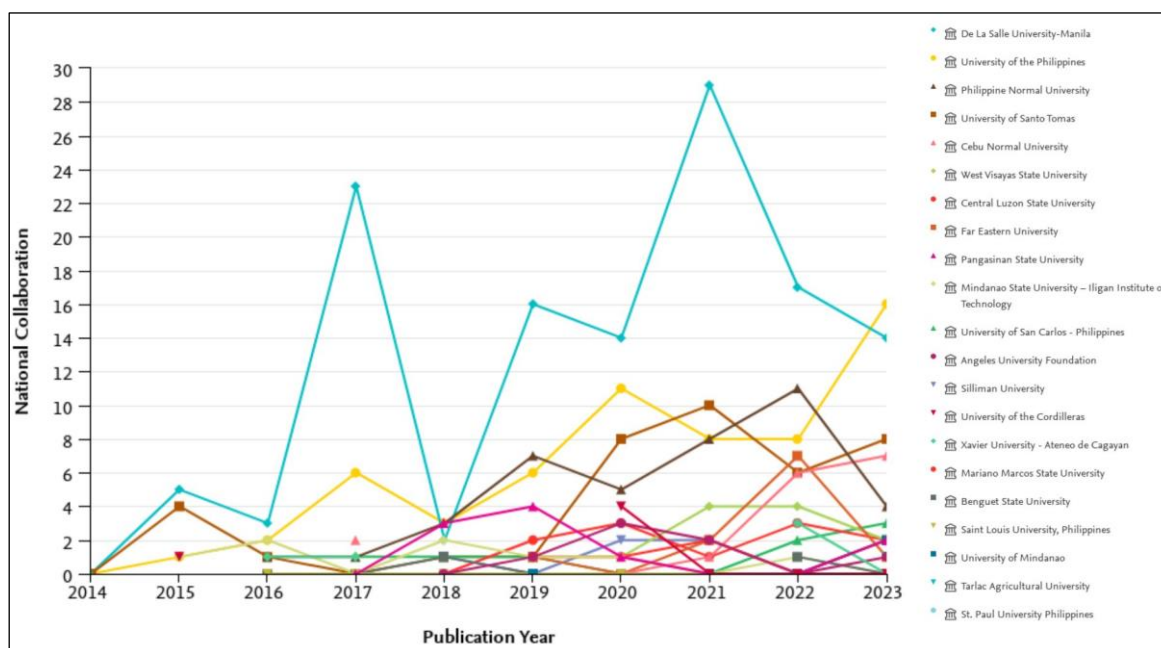


Figure 3. COE in teacher education national collaboration in education discipline by publication year

3.4. Center of excellence in teacher education universities by international collaboration

Figure 4 illustrates the international collaboration trends of various Philippine university COE in teacher education international collaboration in the education discipline by publication year, from 2014 to 2024. Among these institutions, the UP shows the most prominent growth, particularly from 2020 onwards, with a noticeable peak in 2023. DLSU also demonstrated a steady increase in international collaborations, reaching its highest point in 2018. The UST has experienced a significant rise from 2020-2023, marking its most active period of international collaboration. The Central Luzon State University, Mindanao State University, and PNU showed moderate but consistent growth in international partnerships, particularly after 2019. Other institutions, such as Saint Louis University, Far Eastern University, and Cebu Normal University, have smaller but more stable levels of international collaboration, with occasional spikes. Meanwhile, the remaining institutions recorded unstable international collaboration.

The findings showed that the Philippines ranked sixth in international research collaboration compared to other Southeast Asian neighbors. The Philippines has been behind Vietnam since 2018, while Malaysia, Indonesia, Singapore, and Thailand continue to have upward international collaboration performance. Similarly, another bibliometric study analyzed Scopus data to establish the status of educational research in the Philippines from 1996 to 2018, with Indonesia ranking first, Malaysia second, Singapore third, Thailand fourth, the Philippines fifth, Vietnam sixth, and Brunei Darussalam seventh [31]. In another recent study, the Philippines ranked sixth among all disciplines using Scopus data between 1996 and 1994 but ranked fifth in educational research [5]. Research collaboration is an essential endeavor in the field of science. Researchers collaborate by pooling their expertise, information, and resources to achieve their shared objectives. Collaboration creates multiplier effects on educational research productivity [39].

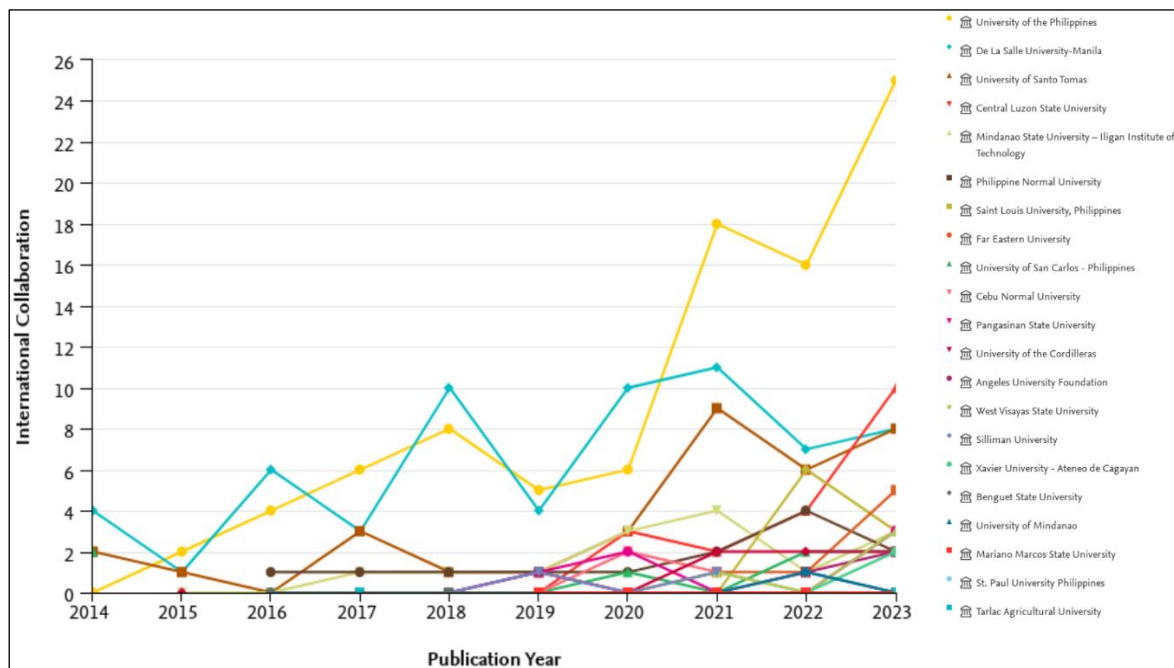


Figure 4. COE in teacher education: international collaboration in education discipline by publication year

Regarding the current collaboration, the Philippines has a high level of engagement in Europe. This is attributed to the various projects of the Commission on Higher Education in Europe, such as the implementation of the Joint Development of Niche Programmes (JDNP) Project in partnership with the British Council. Collaboration between European institutions and universities in the Philippines can lead to the development of joint research initiatives. This would offer financial assistance and enhance research productivity and global reputation [40]. Moreover, an increasing number of European scholars and students are interested in Philippine studies, showing strong academic exchange and cooperation for engagement [41].

Based on these findings, academic-only collaboration is the most common type of collaboration. The other forms of collaboration were minimal. This can be explained by inadequate national and institutional financing [42]. The funding constraints diminish the appeal of research activities, influence the type of research conducted, and hamper support for research dissemination [42]. This funding limitation impedes proper sustenance and management of research activities. Another possible reason is that the diversity of opinions and insufficient commitment among partners are substantial obstacles. Faculty members have recognized these as important problems in their experiences with university-industry partnerships [27].

Regarding national research collaboration, DLSU, a private university, had the highest national collaboration in educational research. However, a contrasting study suggested a widespread lack of research collaboration between public and private HEIs in the Philippines. Both sectors confront research quality and training issues, highlighting the need for further collaboration to enhance these areas [28]. Another reason could be the strict selection of talent, which is more selective, attracting students who are exceptionally driven and well-equipped academically. Catholic university selection guarantees an elevated standard for student performance [43]. Moreover, the UP has been found to perform prominently in international collaboration. Although the UP is acknowledged as the only national university in the country, it has established prominence in the global knowledge economy. This designation facilitates international cooperation and joint research opportunities [44], [45].

Research shows that collaboration increases research performance, strengthens academic networks, and provides alternatives and solutions to problems globally [46]. In addition, the largest neoliberal international ranking tables, such as THE, which included international collaboration with a 2.5% component in their methodology [47], and QS ranking, included the International Research Network (IRN) index [47]. These neoliberal international league tables utilize Scopus (Elsevier) data to determine the HEIs ranks and educational research productivity. However, there is a caveat on international collaboration; according to Haley *et al.* [48], it is critical that collaboration be ‘good’ and sustainable since it is rooted in “positive relationship building, trust, a willingness to learn and mutual respect are central.”

3.5. Implications for policy and practice in higher education

This study examined Philippine research collaboration in the Philippine setting, particularly at the COE in teacher education institutions. Research collaboration has implications for internationalization in higher education. The phenomenon of internationalization compelled academicians, university faculty, research scholars, and policymakers to seek quantifiable indicators to shape the policies of HEIs [49], [50], whether it is an institutional or national research policy. Furthermore, this study utilized SciVal under Scopus to examine and visualize research collaboration in the Philippines. The following are policy recommendations to improve the educational research productivity of private and public HEIs in the Philippines.

3.5.1. Think globally, act locally

The glocalization approach combines globalization and localization [51], encouraging high-performing international and Philippine universities to collaborate and learning from numerous research innovations and indigenous cultural experiences. The term internationalization-at-home has been highlighted in initial documents related to internationalization in the Philippines [26]. Collaboration should not be limited to high-performance international academic institutions or universities in the Philippines. Collaboration must be trickled down to local universities and colleges to capacity and unleash their potential to contribute to knowledge creation.

3.5.2. Brain circulation strategy

The Philippines is undoubtedly experiencing a brain drain due to the country's neoliberal policy of sending Filipino scholars and talent overseas [52]. Brain circulation serves as a remedy for the brain drain phenomenon when governments send their nationals to study abroad, with the expectation that they will return and contribute to the country's progress [53]. Furthermore, in the context of higher education, the UP initiated a program called the "Balik" Ph.D. recruitment program in 2012. However, it was scaled down by 2023 because of financial constraints. In addition, since 1975, the department of science and technology (DOST) has implemented the "Balik" scientist program to encourage overseas Filipinos to contribute to the country's development. Furthermore, one suggestion is to adopt a comparable strategy with China (Mainland), implementing various initiatives such as the 100 talents plan and the Changjiang scholars plan [54] to incentivize Filipino researchers abroad to return and engage Filipino scholars abroad with Filipino domestic scholars as a form of brain circulation.

3.5.3. Establishing comparative and international education institutes

Since the Philippines entered the game of neoliberal internationalization, the Commission on Higher Education must have an institute with a mandate to study other countries' education systems and globalization based on the geographically diverse educational setting within the country, as the internationalization-at-home described. Comparative education is interested in educational debates and issues [55], such as the poor performance of the Philippines in Programme for International Student Assessment (PISA) and poor placement in international university rankings [1], [56], [57]. In addition, this institution could focus on improving the country's policies and practices to align with international trends such as the teaching and learning international survey (TALIS) and Southeast Asia primary learning metrics (SEA-PLM).

3.5.4. Equitable access to resources

A significant problem in internationalization is the need for more available resources, such as Scopus and Web of Science [5]. The sharing of resources allows small institutions to develop their research capabilities more effectively. Moreover, the Commission of Higher Education should have a platform as a repository for all research that uses government funding, thus making their research publicly available to all institutions. Thus, policies that enhance database access are supported by the notion that knowledge sharing boosts the efficiency of the research framework. One study indicated that research collaboration, facilitated by access to research databases, positively correlates with research productivity [58]. In addition, increased funding is essential for state universities and colleges to access necessary research resources. Another international practice headed by Beijing Normal University is the establishment of the "National Alliance of Libraries of Teachers (Normal) Colleges/Universities" for the purpose of knowledge sharing and access to educational resources. Thus, Philippine universities might consider establishing similar initiatives to strengthen other universities, particularly state universities located away from Imperial Manila.

4. CONCLUSION

This paper examines research collaboration in the Philippines, notably in the COE in teacher education, using SciVal analytics. This study showed that the Philippines ranks sixth in international collaboration among Southeast Asian countries, following Malaysia, Indonesia, Singapore, Thailand, and Vietnam. In addition, Philippine universities show strong engagement, particularly in academic-only collaborations, followed by collaboration between the government and medical sectors. In terms of current collaborators, the Asia-Pacific region leads in co-authored publications, whereas Europe is where the Philippines has the highest number of collaborations. Nationally, DLSU stands out with the highest national collaboration among the 21 COE in teacher education, while the UP leads international collaborations. The two institutions showed consistent contributions with a steady trend in local and international collaboration. Collaboration in educational research is paramount to achieving successful outcomes, promoting inclusivity, addressing challenges, and bridging the gap between theory and practice. This empowers stakeholders, enhances knowledge generation, and fosters positive changes in educational processes, ultimately leading to relevant and practical research outcomes. This study offers implications for practice and policy to enhance research collaboration. Future researchers could use prediction modeling to examine the impact of international research collaboration on international league table performance. This study provides additional insights for education research scholars interested in higher education to examine the context of national and international collaboration based on numerous challenges in education research in higher education. However, the findings of this study are not fully generalizable because of the limitations of relying solely on Scopus data. Nonetheless, this study provides essential details needed to improve the status of internationalization in the Philippines.

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AUTHOR CONTRIBUTIONS STATEMENT

This journal uses the Contributor Roles Taxonomy (CRediT) to recognize individual author contributions, reduce authorship disputes, and facilitate collaboration.

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C : **C**onceptualization

M : **M**ethodology

So : **S**oftware

Va : **V**alidation

Fo : **F**ormal analysis

I : **I**nvestigation

R : **R**esources

D : **D**ata Curation

O : **O**riting - **O**riginal Draft

E : **E**riting - **R**eview & **E**editing

Vi : **V**isualization

Su : **S**upervision

P : **P**roject administration

Fu : **F**unding acquisition

CONFLICT OF INTEREST STATEMENT

The authors declare no competing financial interests or personal conflict of interest.

ETHICAL APPROVAL

This study complies with the Declaration of Helsinki and received a Certificate of Exception from the Philippine Normal University Research Ethics Committee (REC Code: 2025-056). As it solely relies on publicly available bibliometric data, no human participants or sensitive information were involved.

DATA AVAILABILITY

The data that supports the findings of this study are available in SciVal, Scopus data.





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