

A Service of



Leibniz-Informationszentrum Wirtschaft Leibniz Information Centre

Sinsay-Villanueva, Leih Maruss V. et al.

Working Paper

Mapping excellence in teacher education: The role of centers of excellence in teacher quality

PIDS Discussion Paper Series, No. 2025-03

Provided in Cooperation with:

Philippine Institute for Development Studies (PIDS), Philippines

Suggested Citation: Sinsay-Villanueva, Leih Maruss V. et al. (2025): Mapping excellence in teacher education: The role of centers of excellence in teacher quality, PIDS Discussion Paper Series, No. 2025-03, Philippine Institute for Development Studies (PIDS), Quezon City

This Version is available at: https://hdl.handle.net/10419/315184

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.











Mapping Excellence in Teacher Education: The Role of Centers of Excellence in Teacher Quality

Leih Maruss V. Sinsay-Villanueva, Glenda Darlene V. Garcia, Valerie L. Lim, Ivan Harris Tanyag, Jenard D. Berroya, Aniceto C. Orbeta Jr., and John Paolo R. Rivera

The PIDS Discussion Paper Series constitutes studies that are preliminary and subject to further revisions. They are being circulated in a limited number of copies only for purposes of soliciting comments and suggestions for further refinements. The studies under the Series are unedited and unreviewed. The views and opinions expressed are those of the author(s) and do not necessarily reflect those of the Institute. The Institute allows citation and quotation of the paper as long as proper attribution is made.

This study is carried out with support from the Second Congressional Commission on Education (EDCOM II).

CONTACT US:

RESEARCH INFORMATION DEPARTMENT **Philippine Institute for Development Studies**

18th Floor, Three Cyberpod Centris - North Tower EDSA corner Quezon Avenue, Quezon City, Philippines











(+632) 8877-4000

Mapping Excellence in Teacher Education: The Role of Centers of Excellence in Teacher Quality

Leih Maruss V. Sinsay-Villanueva Glenda Darlene V. Garcia Valerie L. Lim Ivan Harris Tanyag Jenard D. Berroya Aniceto C. Orbeta Jr. John Paolo R. Rivera

Philippine Institute for Development Studies
Second Congressional Commission on Education (EDCOM II)

March 2025

Abstract:

As part of the reforms introduced following the first Congressional Commission on Education (EDCOM) in 1994, the Teacher Education Council (TEC) was tasked with identifying and establishing Centers of Excellence (COEs) in teacher education in the Philippines, before it was relegated to the Commission on Higher Education (CHED) in 2007. The primary goal of this initiative was to enhance the quality of both pre-service and in-service teacher education through the evaluation of specific parameters outlined by the TEC. Previous studies have highlighted that parameters such as teacher qualifications are significant contributors to student performance in basic education. This study examines the role of COEs/CODs in maintaining the quality of teacher education more than two decades after this arrangement was first introduced. Specifically, it investigates the benefits and challenges associated with these designations, the measures these centers have taken to fulfill their responsibilities, and their potential role in supporting underperforming teacher education institutions (TEIs) and regions. A mixed methods approach was employed in this study, combining desk research, key informant interviews, and focus group discussions. Using triangulation, several research themes emerged regarding the nature and dynamics of COEs/CODs. One major finding suggests disparities in the regional distribution of these centers, attributed to the stringent compliance requirements. While some intended benefits of these centers remain unclear, they have nonetheless inspired non-COE/COD institutions in their respective regions. The study concludes with a series of actionable recommendations aimed at guiding policymakers in effectively implementing, maintaining, and sustaining these centers nationwide.

Keywords: teacher education, teacher quality, mapping, centers of excellence, centers of development

Table of Contents

| 1. | Introduction | 1 |
|----|--|-------------------|
| | 1.1. Problem statement and research objectives | 2 |
| | 1.2. Significance of the study | 2 |
| 2. | 1.3. Limitations of the study Literature review | 3 3 |
| | 2.1. COEs in teacher education across education systems | 3 |
| | 2.2. Philippine-based studies on COEs in teacher education | 5 |
| | 2.3. Policy development on COEs and CODs in Philippine teacher education | 9 |
| 3. | 2.4. Research gap | . 12 13 |
| | 3.1. Framework and methodology | . 13 |
| 4. | 3.2. Research design | . 15 18 |
| | 4.1. Mapping of COEs and CODs shows disparities in regional distribution with notable concentration in NCR | |
| | 4.2. CODs and COEs perform better in LET passing rates than other TEIs | . 26 |
| | 4.3. COEs and CODs have better faculty qualifications | . 30 |
| | 4.4. Enrollment rates remain high for TEIs without designation as COEs and CODs | . 31 |
| | 4.5. The COE and COD rewards and incentives need to be revisited to motivate more TEIs to apply | . 35 |
| | 4.6. CHED framework and process for COE selection emphasize compliance over imparand outcomes | |
| | 4.7. COEs serve as model schools in their region for teacher education | . 38 |
| 5. | 4.8. Initiatives of COEs are not tied to their seals Conclusions and policy recommendations | . 39 41 |
| | 5.1. Key findings | . 41 |
| 6. | 5.2. Policy recommendations | 15 |

List of Tables

| Table 1. Literature matrix for the study on COEs and CODs in teacher education | 6 |
|---|------------|
| Table 2. Sampling procedure summary | 15 |
| Table 3. Sampling distribution by TEI Performance Level | 16 |
| Table 4. Number of TEIs, COEs, and CODs, by region as of 2023 | 23 |
| Table 5. Descriptive summary of COEs and CODs, as of 2023 | 24 |
| Table 6. Distribution of COEs and CODs, by Island Group as of 2023 | 25 |
| Table 7. Distribution and enrollment of TEIs, COEs and CODs, by region as of 2023 | 25 |
| Table 8. Results of robust OLS regression (elementary) | 27 |
| Table 9. Results of robust OLS regression (secondary) | 28 |
| Table 10. Average passing rates for COEs/CODs by group and program level, from 2016 2019 | 28 |
| Table 11. Distribution of faculty with graduate degrees by designation and institution type from SY 2015-16 to SY 2016-17 | 31 |
| Table 12. Proportion of teacher education enrollment in COEs/CODs to total TEI enrollee AY 2020-2021 | 32 |
| Table 13. Proportion of teacher education graduation in COEs/CODs to total TEI graduat AY 2020-2021 | tes, 33 |
| Table 14. Proportion of pre-service enrollees and graduates in COEs, CODs, and non- designated TEIs relative to total TEI enrollment and graduation, from SY 2017- | |
| 2018 to SY 2020-2021 | 34 |
| Table 15. Key findings | 41 |
| List of Figures | |
| Figure 1. Flowchart of CHED selection for the COEs | 10 |
| Figure 2. TQM concept in higher education | 13 |
| Figure 3. Input-output mapping | 14 |
| Figure 4. Map of the distribution of COEs and CODs in the Philippines | 19 |
| Figure 5. Regional distribution of COEs in the Philippines | 20 |
| Figure 6. Regional distribution of CODs in the Philippines | 21 |
| Figure 7. Regional distribution of COEs and CODs among all TEIs in the Philippines | 22 |
| Figure 8. Average passing rate of COEs/CODs and all non-designated TEIs in the | |
| Elementary Level (from the PRC LET Results for 2016-2019), from 2016 to 2019 Figure 9. Average passing rate of COEs/CODs and all non-designated TEIs in the | 9 29 |
| Secondary Level (from the PRC LET Results for 2016-2019), from 2016 to 2019 | 30 |
| Figure 10. The growth of COEs and CODs based on all the CHED issuances on guidelinand identified COEs and CODs for Teacher Education Programs, by date of | |
| issuance | 37 |

List of Appendices

| | he growth of COEs and CODs based on all the CHED issuances on guidelin | es |
|----------------|--|----|
| а | and identified COEs and CODs for Teacher Education Programs, by date of | |
| is | ssuance | 51 |
| | .o. o. o o o o o o o o o o o o o o o o | 52 |
| Appendix C. D | Distribution of TEIs in the Baccalaureate or Pre-Service Teacher Education | |
| Р | Programs Under the Education and Science Training Discipline Group, SY | |
| 2 | 020-21 | 54 |
| Appendix D. A | verage LET passing rates of COEs from 2016 to 2018, by program level | 56 |
| | | 57 |
| Appendix F. Di | istribution of faculty by educational attainment, designation, and HEI type, | |
| fr | rom AY 2015-16 to AY 2016-17 | 59 |

List of Acronyms

AACCUP Accrediting Agency of Chartered Colleges and Universities in the

Philippines, Inc.

AdDU Ateneo de Davao University ALS Alternative Learning System

ASEAN Association of Southeast Asian Nations

AY Academic Year

BAN-PT National Accreditation Agency for Higher Education (Indonesia)

BARMM Bangsamoro Autonomous Region of Muslim Mindanao

BEEd Bachelor of Elementary Education

BLEPT Board Licensure Examination for Professional Teachers

BSEd Bachelor of Secondary Education

BukSU Bukidnon State University

CALABARZON Cavite, Laguna, Batangas, Rizal, and Quezon

CAR Cordillera Administrative Region

CETE Centre for Excellence in Teacher Education (India)

CETL Centers of Excellence in Teacher Learning (United Kingdom)
CETT Centers for Excellence in Teacher Training (United States)

CHED Commission on Higher Education
CLSU Central Luzon State University
CMO CHED Memorandum Order
COD Center for Development
COE College of Education
COE Center for Excellence

COPC Certificate of Program Compliance
CPE Certificate for Professional Education
CQI Continuous Quality Improvement

DepEd Department of Education
DLSU De La Salle University

DPE Diploma for Professional Education

EPRDC Educational Policy Research and Development Center

FGD Focus Group Discussions

GE LET General Education Program

GPA Grad Point Average

HEFCE Higher Education Funding Council for England (United Kingdom)

HEI Higher Education Institutions

HPS High Performing Schools (Malaysia) IADB Inter-American Development Bank

IQAC Institutional Quality Assurance Cell (Bangladesh)

IQA Internal Quality Assurance
KII Key Informant Interviews
KTT Knowledge Transfer Theory

LET Licensure Examination for Teachers

LIDER Lasallian Institute for Development and Education Research

LPTK Lembaga Pendidikan Tenaga Kependidikan

LUC Local Universities and Colleges

MIMAROPA Occidental Mindoro, Oriental Mindoro, Marinduque, Romblon, and

Palawar

MMSU Don Mariano Marcos State University
MOYES Ministry of Education, Youth and Sport

MSU-IIT Mindanao State University-Iligan Institute of Technology

NCR National Capital Region

NIE National Institute of Education (Singapore and Cambodia)

NSTP National Service Training Program (Philippines)

OBE Outcome Based Education

OECD Organisation for Economic Co-operation and Development
OIQAG CHED Office of Institutional Quality Assurance and Governance
PACUCOA Philippine Association of Colleges and Universities Commission on

Accreditation

PBEd Philippine Business for Education PNU Philippine Normal University

PRC Professional Regulations Commission
QGIS Quantum Geographic Information System

RA Republic Act

RCTQ Research Center for Teacher Quality

R&D Research and Development

SOCCSKSARGEN South Cotabato, Cotabato, and Sultan Kudarat, Sarangani, and

General Santos City

SUC State Universities and Colleges

SY School Year

TE Teacher Education

TEC Teacher Education Council
TEI Teacher Education Institutions
TEP Teacher Education Programs
TQM Total Quality Management
UP University of the Philippines

USAID United States Agency for International Development

UGC University Grants Commission (Bangladesh)

USC University of San Carlos
UST University of Santo Tomas
WVSU West Visayas State University

Mapping Excellence in Teacher Education: The Role of Centers of Excellence in Teacher Quality

Leih Maruss V. Sinsay-Villanueva¹, Glenda Darlene V. Garcia², Valerie L. Lim³, Ivan Harris Tanyag⁴, Jenard D. Berroya⁵, Aniceto C. Orbeta Jr.⁶, John Paolo R. Rivera⁷

1. Introduction

Enhancing the quality of the teaching workforce is a prominent policy goal globally, aimed at effectively nurturing students' competencies and maximizing their potential (Organisation for Economic Co-operation and Development [OECD] 2015). Diverse strategies, including accountability measures and efforts to elevate the attractiveness of the profession stress the importance of refining initial teacher education (TE) and professional development (OECD 2015; 2013). It is essential to scrutinize the quality attributes of teacher education systems to assist countries in realizing this objective.

According to OECD (2005, p. 2), teacher quality is "the single most important school variable influencing student achievement". Teacher qualification is considered a major contributor to basic education student performance (Orbeta and Paqueo 2022). The Education and Training Policy Division of the OECD (2005) found that even if myriad factors contribute to poor learner outcomes, literature agrees on the central role played by the teacher in these dynamics. Afkar et al. (2023) highlighted the crucial role of teachers in improving student learning outcomes and reiterated the need for investments in teacher training, support, and professional development. Data from Vietnamese students supported that when teachers are equipped with in-depth, relevant, and practical training, they are more likely to deliver effective instruction, engage students, and facilitate meaningful learning experiences which leads to improved learner outcomes.

Establishing Centers of Excellence (COE) and Centers of Development (CODs)⁸ in teacher education is a leap toward upholding quality. Through establishing COEs, standards and best practices are set for pedagogy, processes, and outcomes. In the Philippines, the COEs are mandated to fulfill certain responsibilities to uphold their title. However, despite these assigned

¹ Supervising Research Specialist, Philippine Institute for Development Studies. Email: lsinsay@pids.gov.ph

² Senior Project Technical Specialist, Philippine Institute for Development Studies. Email: ggarcia@pids.gov.ph

 ³ Project Technical Specialist, Philippine Institute for Development Studies. Email: wlim@pids.gov.ph
 ⁴ Project Technical Specialist, Philippine Institute for Development Studies. Email: itanyag@pids.gov.ph

⁵ Project Technical Specialist, Philippine Institute for Development Studies. Email: jberroya@pids.gov.ph

⁶ President, Philippine Institute for Development Studies. Email: aorbeta@pids.gov.ph

⁷ Senior Research Fellow, Philippine Institute for Development Studies. Email: <u>irivera@pids.gov.ph</u>

⁸ First introduced in August 1994 with the enactment of Republic Act (RA) 7784, officially titled "An Act to Strengthen Teacher Education in the Philippines by Establishing Centers of Excellence, Creating a Teacher Education Council for the Purpose, Appropriating Funds Therefor, and for Other Purposes", the Teacher Education Council (TEC) is tasked with identifying and designating Centers of Excellence (COEs) among qualified public and private higher educational institutions. To earn this designation, schools must meet a series of criteria established by the TEC. In 2007, the Commission on Higher Education (CHED) issued additional guidelines that formally define a COE. This distinction is awarded only to institutions that have consistently ranked among the top ten schools in the Board Licensure Examination for Professional Teachers (BLEPT) for three consecutive years and achieved at least 70% compliance with CHED's prescribed minimum requirements. These requirements are categorized into four parameters: instructional quality, research and publication, extension and linkages, and institutional quality. Additional details about these parameters can be accessed on CHED's website at https://ched.gov.ph/wp-content/uploads/2017/10/CMO-No.26-s2007.pdf. Center of Development on the other hand is a designation given to any higher education institution (HEI) in the country that has demonstrated potential in teaching, research, and community service. All HEIs fall to this category are provided with funding and technical assistance to meet their obligations as stipulated by law. Once an HEI demonstrated outstanding performance and leadership in specific academic programs identified by the Commission on Higher Education (CHED), they are designated with a COE distinction.

roles, there exists a notable imbalance in the distribution of COEs and CODs. across the country. There is limited research on the performance of COEs and CODs of their roles and the outcomes that result from the fulfillment of their mandates, including how their existence and their population may be associated with teacher quality in their respective regions. Even with CODs and COEs, the underperformance of teacher education institutions (TEIs) persists in some regions. Hence, it is valuable to explore what COEs and CODs have been doing to assist other TEIs, especially those that are underperforming. Lacking as well is an evaluation of the effectiveness of the evaluation and designation system.

1.1. Problem statement and research objectives

As such, we pose the overarching research question: How can the establishment of COEs and CODs better address issues in teaching and learning quality? Adapting the Total Quality Management (TQM) and Knowledge Transfer Theory (KTT) principles within the teacher education context, we also inquire on how can continuous improvement and effective dissemination of knowledge among TEIs can be achieved? The results and recommendations were drawn after reviewing the mandates and selection process of COEs and CODs, exploring experiences of faculty and students of COEs and CODs, and identifying existing collaborations between COEs, CODs, and other TEIs in their region.

Considering the global efforts to improve teacher education quality, we also seek to address these supplementary questions:

- 1. Where are the COEs and CODs in the Philippines?
- 2. What are the benefits that come with their seals?
- 3. What actions are the COEs and CODs taking to fulfill the responsibilities tied to their seals?
- 4. What is the role of COEs/COEs for underperforming TEIs/regions?

Guided by the abovementioned questions, we set the following specific objectives:

- 1. To review the benefits and mandates that come with COD and COE seals;
- 2. To assess the uneven distribution of COEs and CODs in TEIs across the Philippines;
- 3. To investigate the fulfillment of the COE and COD mandates especially within their regions

1.2. Significance of the study

Economic demands have always put pressure on education, with the latter being viewed as a sub-system of the former. Educational systems subscribe to the values of consumer society primarily evidenced by the identification of performance indicators (Morley 2001). The shift to a knowledge economy has been prevalent not just in the social, economic, political, industrial, and military fields, but also in educational fields. Knowledge accomplishments and quality indicators have replaced production factors. Reforms in the education sector over the last few years are aimed at introducing responsibility, efficiency, and competition. Educational institutions began showcasing quality and performance indicators to establish a competitive advantage (Drucker 1999; Peng et al. 2021; Sahney et al. 2004; Weis 2021). Guided by quality and knowledge management principles, we examined the role of COEs and CODs in promoting teaching and learning quality.

Our study makes two significant contributions to teacher education literature: first by visualizing the distribution of COEs and CODs in the Philippines through a comprehensive

mapping, and second by reviewing the mandates, benefits, and responsibilities behind the COE and COD guided by principles of KTT and TQM, providing policy recommendation focused on innovation, collaboration, and continuous improvement through knowledge sharing among TEIs (Morley 2001; Sahney et al. 2004).

1.3. Limitations of the study

Much of our study relied on a descriptive mixed methods approach to provide a comprehensive analysis on the role and impact of COEs and CODs in teacher education in the Philippines. For instance, the use of statistical tools such as *t*-tests and *f*-tests, while instrumental in identifying the differences in various performance metrics like Licensure Examination for Teachers (LET) passing rates and enrollment trends among others, faces limitations in fully capturing the level of fulfillment of COE/COD mandates, particularly within their respective regions. For one, there are nuanced and context-specific factors that may influence the actual implementation of COE/COD roles which are hard to quantify, such as institutional culture, administrative priorities, and program sustainability.

There is also the possibility of overgeneralization of results in the study, as these tests rely heavily on aggregate data, which can mask intra-institutional differences in how mandates are interpreted and implemented by these institutions. For example, a COE may excel in one of the performance metrics but fall short in another. Metrics such as LET passing rates and enrollment numbers, which serve as the primary indicator for COE/COD designation, may be influenced by external factors as well. The datasets and policies used in analysis are also limited to certain timeframes, and as such results and recommendations may vary from current changed contexts.

2. Literature review

Our literature review is divided into three parts. The first discusses the findings of scholarly literature on existing COEs and CODs in international TEIs. The second provides a discussion of Philippine-based scholarly findings on COEs and CODs. The third underscores the historical development of policies that led to the current policy underpinning the selection of COEs and CODs and the corresponding status mandates as a model TEI based on memorandum and republic acts.

2.1. COEs in teacher education across education systems

In other countries, the concept of COEs/CODs are implemented in various ways to cater to the emerging needs and opportunities in the education sector. For example, the United States through its Agency for International Development (USAID) established several Centers of Excellence for Teacher Training (CETT) in various locations across the Caribbean and Latin American region to better improve the delivery of basic education in these areas (Armstrong and Campos 2002). In a study conducted by the Inter-American Development Bank (IADB) on the status of CETTs, the teacher-participants of the program have expressed their discontent over the existing teacher training framework. For one, it failed to address the literacy and numeracy deficiencies of the teachers. Moreover, not all teachers can use English when delivering their pre-service and in-service training (Griffith 2009). This occurred despite having elements of inclusion in the CETT by integrating local languages in the curriculum to cater non-Spanish speaking teachers (Zardini and Zardini 2011).

A series of reports published by USAID cite CETT's impact on teacher development and student learning outcomes. The program was able to provide in-service training to more than 35,095 teachers and administrators in 21 countries. Some of the program's components such as follow-up support, teacher circles, and classroom observation significantly improved teaching practices in literacy skills like reading comprehension, phonics, fluency, and vocabulary development based on anecdotal evidence (Skelton and Navarro 2011, p. 15-17). All teachers were equipped with culturally relevant teaching materials and diagnostic tools to better enhance their literacy instruction (Hunt et al. 2011, 19-21). As a result of CETT's intervention, new degree programs and curricula have been developed in some areas in the region. Parents, on the other hand, have become more engaged in their children's education especially in literacy activities (Hunt et al. 2011, p. 15-17; Montenegro 2011).

A similar initiative was launched by the United Kingdom through the Higher Education Funding Council for England (HEFCE) in 2005 to establish Centres for Excellence in Teaching and Learning (CETL). The program was designed to enhance the quality of teaching and learning in HEIs across the country. They are also aimed to encourage innovation and disseminate effective pedagogical strategies across the sector by recognizing and rewarding universities that demonstrated effective teaching practices (Saunders et al. 2008). This initiative supported the creation of 74 CETLs in the United Kingdom (HEFCE 2005). These centers include the University of Leeds and the Queen Mary University of London. The British Council in Dhaka, together with the University Grants Commission (UGC) and the Institutional Quality Assurance Cell (IQAC), has also established nine CETLs in Bangladesh in a bid to train both public and private university teachers using the newly created Outcome Based Education (OBE) system (Jasim 2021; Shin et al. 2022).

Several studies have been published on the immediate short- and long-term effects of the CETL. Saunders et al. (2010, p. 10) pointed out that over 83% of CETLs have engaged in pedagogic research, which offers opportunities for its teaching staff to further develop and refine their teaching methodologies. These findings matched the assessment of Gosling and Hannan (2007) of CETLs in the United Kingdom, where the initiative contributed to the alignment of concepts with instructional strategies on the ground. While this was the case, the dissemination and measurable impacts on student learning outside CETL settings remained limited. Little and William (2011, p. 7) argued that there is limited direct evidence connecting CETLs to substantial systemic improvements in student outcomes across institutions. However, Armsby (2011) highlighted how CETLs successfully integrated work-related learning into the curriculum, making it possible to establish collaboration between the academia and industry, while aligning graduate skills with employer expectations.

Association of Southeast Asian Nations (ASEAN) Member States have also implemented initiatives like the COE/COD framework in the Philippines. Indonesia, for example, has established the Lembaga Pendidikan Tenaga Kependidikan (LPTK) as a central mechanism for enhancing the quality of teacher training (Rokhman et al. 2017; Maryatun and Supamo 2023). These institutions include both state universities and private educational institutions that specialize in developing competent educators for the country's primary, secondary, and vocational schools. All these institutions undergo rigorous evaluation by the National Accreditation Agency for Higher Education (BAN-PT), which assesses their teaching quality, research output, and community impact, among others (Afriadi et al. 2023). According to Dirgantoro and Soesanto (2023), LPTK's focus on project-based learning enabled its teachers to better address the diverse student needs, talents, and interests. It has also enhanced self-

confidence and problem-solving skills among students. These student-centered approaches have improved engagement, reduced stress, and facilitated deeper learning outcomes.

Singapore, on the other hand, has only one TEI that is authorized by its government to provide teacher education and training (Loh and Hu 2019). The same is true for Cambodia's National Institute of Education (NIE) as well, in which the Ministry of Education, Youth and Sport (MOYES) has expressed its goal to "rehabilitate [the] NIE into a center of excellence" (MOYES 2021, p. 54). Larsen (2020) however took note that there is a limited empirical evaluation that directly compares the effectiveness of single COEs to multiple COE systems. She used the experiences of Sweden and Japan in arguing that COEs do not necessarily evaluate how different configurations (i.e., single or multiple) influence scientific excellence, teacher development, or learning outcomes.

2.2. Philippine-based studies on COEs in teacher education

COEs and CODs are poised as leaders in curriculum development, faculty development, research, and community engagement. A key indicator of their success is the performance of their graduates in the LET. Local studies on the existing COEs and CODs mainly focus on the evaluation of their LET performance, suggesting that high performance in LET equates to producing competent and quality teachers as part of their mandate set by CHED (Bonior 2018). However, several studies showed that some of the COEs and CODs do not maintain their performance and even fall below the national passing rate.

Baylan (2018) examined the LET performance of 10 Philippine TEIs with COE and COD designations. Results revealed that out of the 10 TEIs, only the Philippine Normal University and West Visayas State University consistently exceeded the national passing rate for both elementary and secondary LET level from 2008 to 2017. It revealed that majority of TEIs with COE and COD seals do not consistently maintain the national passing standard rate of 60%.

Similarly, the study of Ladia and Nool (2012) analyzed data on the LET performance of 31 COEs and 9 CODs in September 2010 LET elementary level and showed that in 8 of the 31 COEs and 4 of 9 CODs, only less than half of their first time takers passed the LET elementary level. On the other hand, some of the COEs and CODs including De La Salle University (DLSU) (93.3%), University of Santo Tomas (UST) (90.8%), Ateneo de Davao University (AdDU) (85.7%), Philippine Normal University (PNU) (83.1%), Colegio De Dagupan (80%), and Xavier University (79.8%) had the highest overall passing percentages. Among these, only PNU, a state university, has produced the most elementary teachers, solidifying its position as the nation's leading teacher education institution. Notably, the top three performing COEs are in the National Capital Region (NCR⁹) (Ladia and Nool 2012).

While the abovementioned two studies determined that majority of the COEs and CODs fall short based on their LET performances, there are still more TEIs with COEs or CODs seals successfully maintaining their status. Some COEs such as the College of Teacher Education of the University of Northern Philippines not only maintains LET passing rates but also fulfills their mandates of providing linkages to their community through research publications both local and international, seminars and workshops, and curriculum and instruction development. For nearly a decade, it has served as a national training hub, organizing seminars and workshops at the national, regional, and local levels. These events benefit not only the college's

⁹ The economic hub of the Philippines; also known as Metro Manila – a metropolis of urban development and historical landmarks.

faculty and students but also educators from the Department of Education (DepEd) (Relon 2017). Overall, it provided a strong faculty, high licensure exam passing rates, and a robust academic environment, characterized by well-designed programs, strong faculty-student relationships, and local and international partnerships; however, limited resources and faculty workload constraints hinder full engagement in extension and research activities (Relon 2017).

The overall performance of COEs and CODs remains higher than other TEIs in the country (Ladia et al. 2012). This is evident in the study conducted by Ladia and Nool (2012) that analyzed the LET performance of State Universities and Colleges (SUCs) and other TEIs in Region III. Results showed that the Central Luzon State University (CLSU), being the only COE in the region, ranked first among the SUCs and TEIs in the region (Ladia and Nool 2012). The disparity in the LET performance of COEs/CODs and other TEIs suggests that low performing TEIs should learn and adapt the strategies and policies of COEs and CODs to improve their LET performance.

Table 1 organizes existing literature on COEs and CODs both in the Philippines and international. While limited in number, previous studies have examined the performance of COEs/CODs in producing competent teachers, as well as their LET examination passing rates, institutional framework, and the effectiveness of CHED accreditation in enhancing their program quality, among others. Key findings highlighted the significant variability in performance among designated COEs and CODs in the Philippines, with some TEIs struggling to meet the national benchmark¹⁰ set by the CHED despite their status.

Table 1. Literature matrix for the study on COEs and CODs in teacher education

A Local literature studies on COEs and CODs in teacher education

| Author | Title | Topic | Research Questions | Methodology | Results and Discussion / Conclusions |
|------------------------|--|--|--|---|--|
| Ladia et al. (2012) | Centers of Excellence and Centers of Development for Teacher Education: Their Contribution to the Elementary Teacher Force | Selection /evaluation of COE/COD based on their LET Performance | Which COEs and CODs have produced competent teachers? | Descriptive statistics and comparative analysis (t-test) | 56% of COE first timers and 53.7% of COD first timers passed the LET. Eight COEs and four CODs had less than 50% of passing rates in LET. Recommendations to CHED for reviewing COE/COD status for low-performing institutions. |
| Kalaw (2017) | Trends of De La Salle Lipa Education Graduates' Performance in the LET | Selection /evaluation of COE/COD based on their LET Performance | What is the trend of De La Salle Lipa graduates' LET performanc e from 2011 to 2015, and how does it align closely with their respective profiles? | Descriptive statistics and comparative analysis (t-test) | LET passers from De La Salle Lipa consistently performed above national averages. Elementary Education passers achieved around 80-100% passing rates, while Secondary Education passers consistently surpassed 90% passing rate. Some of the factors contributed to this |

¹⁰ Benchmarking in teacher education involves evaluating educational practices, standards, and outcomes by comparing best practices of leading institutions to improve teacher training programs. This is usually done through school visits or conferences.

-

| | | | | | trend include their grade point average (GPA) and English proficiency. No significant differences were found based on the field of specialization. |
|-----------------------------|--|--|---|--|---|
| Ladia and Nool (2012) | Analysis of the Performance in the Licensure Examination for Teachers of State Universities and Colleges in Region III | LET performance trends and factors affecting passing rates in COEs/CODs in Central Luzon | What is the LET performanc e of SUCs in Region III from 2009 to 2012? How do first time takers and repeaters perform in the LET? | Quantitative analysis of LET performance data for university and college examinees. | SUCs achieved a 49.1% passing rate for first timers, with colleges outperforming universities (53.7% vs. 48.0%). Repeaters consistently underperformed, with a 25.1% passing rate. Some of the topperforming schools in Region III are Central Luzon State University (75.9%), Aurora State College of Technology (69.6%), and Tarlac College of Agriculture (64.8%) among first time takers. Repeaters dragged down overall performance, contributing to reductions in institutional passing rates ranging from 7-27.9%. |
| Baylan (2018) | Trend Performance in Board Licensure Examination for Professional Teachers in Selected Philippine Teacher Education Institutions | Analysis of Board Licensure Examination for Professional Teachers (BLEPT) (LET) performance trends and quality of teacher education programs | What are the performanc e trends in BLEPT (LET) among selected TEIs in the country? How do institutional and program accreditations correlate with their performanc e? | Desk research on primary and secondary data on BLEPT (LET) performance, including the institutional profiles and accreditations of 10 TEIs in the Philippines from 2008 to 2017. | Only 30% of the TEIs analyzed have consistently met the national passing standard of 60%. Most TEIs have either shown fluctuating or declining performance trends, which raises concerns about their program quality and the accreditation effectiveness of CHED. |
| Relon (2017) | The College of Teacher Education as Center of Development: Its Experiences and Challenges | Experiences, best practices, and challenges of a TEI achieving a COD status. | How did the TEI respond to the challenges it faced as a COD? What are some of the best | Triangulation of various qualitative research approaches (i.e. documentary analysis, FGDs, and KIIs). | Almost 50% of its teaching staff hold doctorate degree, with others pursuing advanced degrees. Some of the effective policies and practices adopted by the TEI include regular |

| | | | practices it has employed, and what are their outcomes? | | curriculum enhancement, LET review sessions, and partnerships with domestic and international higher educational institutions (HEIs). • The challenges that the college has faced include budgetary constraints, limited sustainability in extension activities, and limited research outputs. |
|--|--|--|--|---|--|
| Baylan (2019) | A Critical Examination of the Institutional Vision in Philippine Teacher Education Institutions | Analysis of the institutional vision statements of selected TEIs in the Philippines | What characterize s the institutional vision of a TEI? What are some of the commonalities in their vision statements? | Textual and contextual analysis of institutional vision statements from 10 TEIs, which were accessed through their respective websites. | Some of the common themes emerged in the analysis are institutional prominence (33.33%), function (26.67%), competitiveness (20%), and outcomes (20%). It highlighted the dual goal of TEIs that is to foster national development while aligning with ASEAN and global standards. |
| Fontejon- Bonior and de la Rama (2018) | Determinants of LET performance of BEEd, BSEd, and Certificate for Professional Education (CPE) graduates of a center of excellence in teacher education | Analysis on the ELT performance of BEEd and BSEd graduation of Siliman University | What is the level of academic performan ce of the 2012 and 2013 BSEd graduates in various areas? What is the level of performan ce of the 2012 and 2013 BSEd graduates in the September 2012 and 2013 LET in various areas? | Combination of document analysis and quantitative methods (t-test, Pearson correlation) | Weak link between the mean grade on the GE program and LET GE section as well as the specialization in LET and the PE courses taught in the university Need for reevaluation of the CPE program as students pay for the 18-units professional education course yet, low passing score |

Source: Tabulated by the authors

| Author | Title | Topic | | search estions | Methodology | Results and Discussion / Conclusions |
|-------------------------------------|--|--|---|---|---|---|
| Skelton and Navarro (2011) | WHITE PAPER SERIES - Centers for Excellence in Teacher Training (CETT) Program | Program review on the effectiveness and impact of Center for Excellence in | • | How did each of the CETTs conceptualiz e and implement its regional | Program review, qualitative research | A coherent and regional vision is important outlining the program's core principles while adapting local contexts. Strong leadership, collaborative partnership, |

| | | Teacher | program | | and institutional stability |
|----------|----------------|---------------|---------------|----------|--|
| | | Training | design and | | are essential for successful |
| | | . 0 | managemen | | regional program |
| | | | t? | | implementation. |
| | | | What were | | F |
| | | | the | | |
| | | | drawbacks | | |
| | | | and the | | |
| | | | benefits of | | |
| | | | working | | |
| | | | regionally | | |
| | | | rather than | | |
| | | | on a | | |
| | | | country-by- | | |
| | | | country | | |
| | | | basis? | | |
| | | | What were | | |
| | | | the major | | |
| | | | challenges | | |
| | | | of regional | | |
| | | | cooperation | | |
| | | | (across and | | |
| | | | within the | | |
| | | | three CETTs) | | |
| | | | and how | | |
| | | | were they | | |
| | | | overcome? | | |
| Eriksen | Teacher | Evaluation of | What are | Post hoc | Responding to the |
| and Lund | Education as | COE based on | some of the | analysis | challenges and potential |
| (2016) | Transformation | their | challenges | • | reconfiguration of teacher |
| , , | : Some Lessons | performances | and | | education is doable through |
| | Learned from a | and practices | potentials in | | transformative agencies |
| | Center for | · | reconfigurin | | that identifies the priorities |
| | Excellence in | | g teacher | | and level of ambition. |
| | Education. | | education? | | Transformation is a step-by- |
| | | | What | | step process and could take |
| | | | resources | | a long time |
| | | | and | | 5 5 5 |
| | | | infrastructur | | |
| | | | es may be | | |
| | | | developed | | |
| | | | and how? | | |

Source: Tabulated by the authors

2.3. Policy development on COEs and CODs in Philippine teacher education

The signing of the Higher Education Act in 1994 gave power to the Commission on Higher Education (CHED)¹¹ to identify, manage, and develop COEs and CODs in the Philippines. One of the first initiatives that led to the creation of COEs/CODs in a subject matter took place in December 1999, when CHED released its *Guidelines for the Implementation of the Centers of Excellence/Centers of Development Project for Science and Mathematics*. This comes after a series of consultations with directors from various HEIs across the country towards strengthening the mathematics and science sectors in higher education. The subject matter covered under the COE/COD framework of CHED was later expanded by the turn of the

11

¹¹ The Commission on Higher Education was established in 1994, as one of the educational administrative government agencies attached to the Office of the President in the Philippines. CHED is responsible for managing and regulating tertiary and post-graduate programs including public and private higher education institutions, state universities, and colleges.

millennium, which includes teacher education, whose framework was adopted by the commission in 2007.

Following the general policies and standards on COEs in CHED Memorandum Order (CMO) No. 55 (2006), the CMO No. 26, series of 2007 stated the implementing criteria and guidelines in the selection, development, and support of COEs and CODs for TEIs. In the selection, four phases are involved: (1) application phase; (2) initial paper evaluation; (3) ocular inspection and identification; and (4) identification. Figure 1 illustrates COE selection.

The criterion for selection includes the following:

- 1. Instructional quality (45%), based on administration, faculty resources, curriculum, laboratories, library, information technology capability, student support system, performance in LET, graduate profile, and graduate tracer study;
- 2. Research and publication (30%), based on the number of research studies and publications;
- 3. Extension and linkages (20%); and
- 4. Institutional qualification (5%).

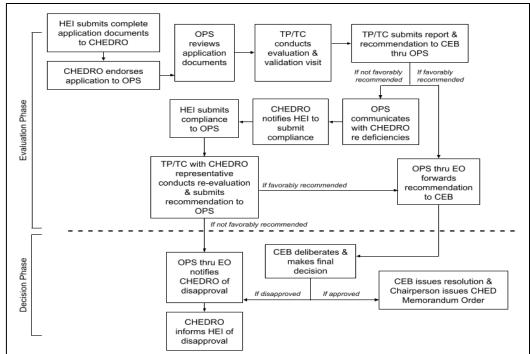


Figure 1. Flowchart of CHED selection for the COEs

Source: Handbook on CHED Regional Office Operations (2013)

To be identified as COE, a TEI must obtain at least 70 points while to become a COD, a TEI needs 60 points. These are all later modified in a 2015 CMO. Roles and responsibilities of COEs and CODs are also indicated in this CMO; however, these will be later modified with the passing of the Excellence in Teacher Education Act.

After eight years, the criteria and scoring guide, as well as the minimum number of points to meet are revised through CMO No. 16, s. 2015. While the four major criteria are retained together their corresponding weights, the comprising parameters for each criterion and their scores are amended. Instructional quality in the previous CMO was composed of 10 parameters; however, the updated guidelines reduced these to three, with focus only on quality of graduate

performance based on LET results, graduate profile, and curriculum instruction. Among these, LET performance has the biggest weight at 15%. Previously, this was only given 4% weight.

In 2022, the Excellence in Teacher Education Act (Republic Act No [RA]. 11713) advocated for the reformation of the Teacher Education Council (TEC) and took charge on matters concerning COEs and CODs. Its primary objective is to achieve consistency in teacher education programs, spanning from pre-service to in-service. Moreover, it assigns the TEC to establish and enforce fundamental requirements for teacher education programs. It is responsible for ensuring a robust and transparent connection between the outcomes of teacher education programs and the professional standards for teachers and school leaders, incorporating research findings and international best practices. The TEC is mandated to develop a roadmap for teacher education for submission to the CHED for integration into the national higher education roadmap.

The national higher education roadmap serves as a guide for designing relevant, responsive, innovative, creative, and collaborative programs. Furthermore, as previously mentioned, the TEC is entrusted with designating, identifying, establishing, or developing Teacher Education—COE across all regions in the country. These COEs, whether public or private HEIs, have demonstrated a consistent record of excellence in teacher education and have produced high-caliber graduates. They are defined by CHED as cited by Bayudan-Dacuycuy et al. (2023) as a "department in an HEI that continuously demonstrates excellent performance in instruction, research and publication, extension and linkages and institutional qualifications" (p.2). Aside from the COEs, there are also CODs for Teacher Education which are characterized as HEIs with demonstrated potential of becoming COEs in the future.

In the attempt to update selection and awarding criteria, the TEC shall assess each TEI application based on the following criteria as mandated by RA 11713, Section 5:

- 1. Highly educated, professionally qualified and experienced faculty dedicated to the philosophy, mission, vision and goals of the institution and of education;
- 2. Adequate library, research and study facilities;
- 3. Competent administrative and support staff;
- 4. Well-selected students as reflected in the institution's admission policies and standards;
- 5. Well-planned and relevant instructional programs;
- 6. Adequate student development program;
- 7. Adequate student services;
- 8. Relevant extension services and outreach programs;
- 9. Average percentage of LET passers for the last 3 years; and,
- 10. Percentages of graduates who become teachers.

The evaluation is based on quantitative data, such as academic performance indicators, and qualitative assessments, including site visits and interviews with faculty and administrators. Other criteria may be established and operationalized by TEC including but not limited to innovativeness and other similar measures of excellence as per RA 11713.

The TEIs that demonstrate excellence across these criteria are designated as COEs in Teacher Education. This designation signifies their exemplary performance and commitment to advancing the quality of teacher education in the Philippines. COEs receive various benefits and support from CHED, including funding opportunities, technical assistance, and opportunities for collaboration with other COEs and educational institutions.

Following modifications in the roles and responsibilities of COEs and CODs based on RA 11713, the selected institutions will be primarily expected to:

- 1. lead in offering relevant pre-service and in-service teacher programs;
- 2. conduct collaborative research for improving teacher education;
- 3. provide curricular and instructional resources;
- 4. connect different disciplines in the region as the central node;
- 5. provide professional assistance in establishing quality assurance among TEIs;
- 6. pursue cooperation among TEIs to improve program quality;
- 7. serve as exemplars in the conduct of research activities; and
- 8. participate in a national research agenda for teacher education.

Specific to teacher education, there are about 36 COEs and 38 CODs in the Philippines as of 2023.

2.4. Research gap

Only a few research has been conducted internationally and locally on COEs and CODs. Nonetheless, existing studies in international literature largely focus on evaluating the performance of CETTs, including opportunities and challenges. The two studies reviewed here identify two points that need to be considered when conducting studies in the Philippines on institutions expected to practice excellence and continuously improve quality: First, the differences in experiences due to regional variation; second, the in-depth analysis to identify certain practices that can be linked to their performance. The former implies that as findings may not be universally applicable, it is essential to understand how context influences performance. On the other hand, the latter shows that different components need to be looked at to obtain a complete picture and make appropriate analysis with corresponding suggestions.

In local literature, the few studies on COEs and CODs have different focuses which result in a lack of empirical evidence to understand the success of having COEs and CODs to improve teacher education. Local studies either reviewed several COEs at a time or were individual undertakings to assess their own program performances. In both instances, studies mainly looked at the LET performance of their graduates from programs as their indicator for quality; only one study did look at institutional experience. In addition, the independent evaluations were done to record their graduates' performance and attempt to link the results to qualities or components of their academic programs – the curriculum, in particular. This should then lead them to making the necessary changes to improve their programs. Given these, while the studies raised the issue of repeaters' low performance in the LET among COEs and CODs, they do not explain systemic causes of the fluctuating performance in some TEIs. Still conclusions were made stating that there are COEs and CODs that do not meet their mandate to produce competent teachers based on the LET results. While literature recognizes the limitations of using LET as the measure for quality, there is also a lack of studies on other forms of quality measures to understand a TEI's impact on their graduates' classroom performance and their respective students' learning outcomes.

Given these, we bridge the gap by determining the prevalence of COEs and CODs in the country and analyzing how the distribution may be associated with TEI quality in their respective regions. Furthermore, it seeks to understand how COEs and CODs in the Philippines fulfill their mandates and ultimately contribute to improving teacher quality in the Philippines.

3. Methodology

3.1. Framework and methodology

Policies and frameworks are in place to uphold teacher education quality. Among these policies, we highlight the following: RA 11713, COE and COD selection, and Quality Assurance and Monitoring and Evaluation Frameworks—specifically directed toward the improvement and standardization of teacher education programs leading to improved teaching quality and learner outcomes.

An adaptation of the KTT and TQM model served as a roadmap for the study. Guided by TQM, the study examines how teacher education quality can be maintained and improved. The TQM philosophy integrates all organizational functions to focus on meeting stakeholder needs and organizational objectives. In this model, organizations are seen as a collection of processes aimed at continuous improvement through knowledge and experiences of workers (see Figure 2). Historically, the TQM was developed to improve manufacturing processes post-war in the United States, but its application evolved as applicable in service and public sector and education (Drucker 1999; Hoque et al. 2017; Aminbeidokhti 2014).

TQM's core is satisfying consumer needs, which has been adapted by educational institutions with stakeholders identified being students, parents, and society in general. Adapting TQM in education recalibrates strategies to include improvement of morale, reduction of costs, and increase in efficiency and responsiveness to consumer needs. Educational institutions' application of TQM has focused mainly on three tasks: meeting stakeholder needs and demands, increasing efforts for continuous improvement, and integrating organizational resources towards quality improvement (Morley 2001; Weis 2021).

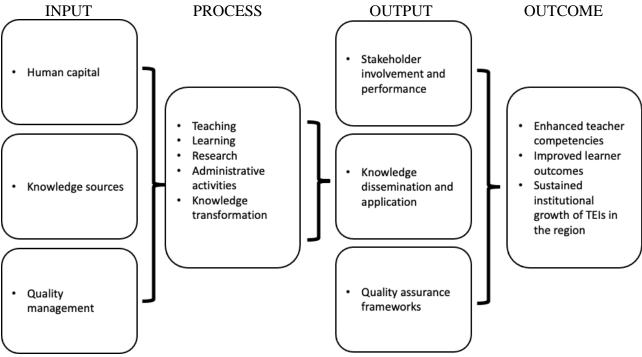
Human Tangible Resources outcomes **Processes** Teaching Learning Physical Research Value Outputs Inputs Resources Administrative addition activities Knowledge transformation Financial Intangible Resources outcomes

Figure 2. TQM concept in higher education

Source: Conceptualizing total quality management in higher education (Sahney et al. 2004)

KTT emphasizes effective sharing and application of knowledge between individuals, teams, and organizations while TQM focuses on continuous improvement, stakeholder involvement, and systematic quality assurance (Drucker 1999; Morley 2001; Hoque et al. 2017). Combining both theories, we come up with an input-output mapping for improving teacher education quality through promotion of knowledge transfer and sharing and continuous improvement among TEIs. We focus on processes involving the role of COEs and CODs in the TE landscape.

Figure 3. Input-output mapping



Source: Constructed by the authors

Input refers to resources an organization needs to carry out tasks and functions. Three input factors are present, as shown in Figure 3: human capital, knowledge sources, and process sources. Human capital includes teachers, school administrators, quality assurance teams, and policymakers. Knowledge sources include subject matter expertise, pedagogical knowledge, teaching and learning materials, and research facilities. Quality management includes monitoring and evaluation processes, stakeholder feedback, benchmarking, ang graduate tracing. For process, which are actions taken by an organization transforming inputs to outputs, we adapted the TQM for Higher Education (Sahney ey al 2004). Output factors include stakeholder involvement and performance, knowledge application and dissemination, and quality assurance frameworks. These are results from the input and process factors, while outcomes are the broader and longer-term impacts realized through sustained efforts. Intended outcomes include enhanced teacher competencies, improved learner outcomes, and sustained institutional growth. Performance indicators include teacher content mastery, teacher performance evaluations, student assessment scores, graduate employability, and institutional quality assessment scores (Hatry 2006; Morley 2001; Sahney et al. 2004; Weis 2021).

Adapting the TQM and KTT, the study investigates the role of COEs and CODs to serve as the central node for networking specific disciplines in teacher education in their region (RA 7784). The capacity of COEs and CODs for knowledge and quality transfer will be investigated guided by the above model and anchored on the research questions and objectives.

3.2. Research design

We adhered to a descriptive mixed-methods design, combining document reviews and qualitative data collection through key informant interviews (KII) and focus group discussions (FGD). This approach allows for a comprehensive exploration of the role of COEs and CODs by integrating quantitative content analysis from desk reviews and secondary data with indepth qualitative insights from stakeholders.

3.2.1. Desk reviews

The process starts with a comprehensive identification of institutions recognized as COE and COD in Teacher Education. These institutions, acknowledged by CHED for their outstanding contributions, stand as pillars of educational innovation and excellence. For the desk reviews, an analysis of existing information to establish background knowledge and identify research gaps, majority of the references used are the available publications and issuances by government agencies or various authoritative and sectoral stakeholders (including private research firms) affiliated with higher education, specifically, teacher education programs. Most of which were accessed electronically, either through web-based bibliographic databases (e.g., ScienceDirect, JSTOR) or direct websites. Most of the desk review materials were also provided by CHED and Professional Regulations Commission (PRC) and were used to situate the COEs and CODs, and to establish supporting literature including CHED issuances on COE and COD selection.

3.2.2. Mapping

The illustrations mapping COEs and CODs were created from a database of TEI coordinates plotted using Quantum Geographic Information System (QGIS). The list and profile of COEs and CODs are complete and available on the CHED website. As of writing, the official list of recognized TEIs is not available for geotagging and would require identification out of the total number of participating HEIs in the BLEPT. Statistics for the TEIs used in the mapping are based on the most recent confirmed number of TEIs (CHED-OIQAG 2024). For markers on the map, only COEs and CODs have been marked across the maps, and the number of TEIs was interpolated into a graduated mapping of its regional distribution.

3.2.3. Qualitative data gathering

A series of key informant interviews (KIIs) and focus group discussions (FGDs) were conducted to gather feedback and narratives from respondents following the sampling procedures in Table 2 and the sampling distribution in Table 3.

Table 2. Sampling procedure summary

| Step | Details |
|-----------------|---|
| Define Clusters | Institutions categorized based on: |
| | 1) major geographic location (Luzon, Visayas, Mindanao, NCR, BARMM) |
| | 2) institution type (Private, Public/SUC) |
| | 3) LET performance (Top-, Average-, Low-Performing) |
| Select TEIs | Target of 22 TEIs and 176 respondents, number of TEIs each cluster— |
| | 6 Luzon, 2 NCR, 6 Visayas, 2 BARMM, 6 Mindanao; |
| | 10 Private, 10 SUC, 2 CHED-Supervised; and |
| | 8 Top Performing, 6 Average Performing, 8 Low Performing |

| Identify Respondents | Types of participants from each Teacher Education program, | | | | |
|----------------------|--|--|--|--|--|
| identity Respondents | | | | | |
| | approximately 6 to 8 respondents: | | | | |
| | (1) college dean | | | | |
| | (1) staff for IQA | | | | |
| | (3) BEEd or elementary department chair, faculty, student | | | | |
| | (3) BSEd or secondary department chair, faculty, student | | | | |
| Invite Participants | Email invitations of meeting links sent after obtaining consent for KIIs and | | | | |
| | FGDs | | | | |
| Conduct KIIs | Total of 8 FGDs with TE agencies, and 56 KIIs from 9 TEIs—— | | | | |
| | Luzon - Top Performing SUC | | | | |
| | NCR - Top Performing Private | | | | |
| | NCR - Top Performing SUC | | | | |
| | Visayas - Top Performing Private | | | | |
| | Visayas - Average Performing Private | | | | |
| | Visayas - Low Performing SUC | | | | |
| | Mindanao - Top Performing Private | | | | |
| | Mindanao - Top Performing SUC | | | | |
| | Mindanao - Average Performing Private | | | | |

Source: Tabulated by the authors

Table 3. Sampling distribution by TEI Performance Level

| Institution Category | Definition | Number of TEIs Sampled | Number of Respondents per TEI | Total Respondents |
|-------------------------|--|------------------------------|---|----------------------|
| Top Performing | COEs; 80% and up LET | | | |
| | passing rate, consistent over the last 3 periods | 6 | 2 to 0 /Door | 41 |
| Average Performing | CODs; 65% and up (but | | 2 to 8 (Dean, department | |
| | <80%) LET passing rate, inconsistent over the last 3 periods | 2 | chairs, faculty, students, IQA staff) | 13 |
| Low Performing | No designation; ≤15% LET passing rate over the last 3 periods | 1 | Stall) | 2 |
| TOTAL | | 9 | | 56 |

Source: Tabulated by the authors

Two interview questionnaires were created for the intended KII and FGD participants: representatives from TEIs, COEs, and CODs, representatives from CHED, and representatives from accrediting agencies. For CHED, TEC, and accreditation agencies, questions revolved around the following: 1. definition of teacher education quality; 2. indicators used in quality assurance; 3. mandates of COEs and CODs; 4. monitoring of TEI quality; and interventions for underperforming TEIs. For TEI representatives from COEs and CODs, the following themes guided the creation of the questions: 1. quality assurance systems in place; 2. actions to sustain quality; 3. interpretation and observance of CHED CMO; and 4. fulfillment of mandates.

Fifty-six (56) KIIs and eight (8) FGDs were completed. Respondents included representatives from one CHED office involved with selection and monitoring of COEs and CODs across all kinds of programs, the TEC, and TEI deans or designated representatives of selected COEs and CODs from Luzon, Visayas, and Mindanao.

In selecting COEs and CODs for the study, the following process was observed. TEIs were grouped into the following categories guided by the LET performance data (2010-2022):

- 1. *Top Performing* (designated COE and average of 80% and above LET passing rate consistent in the last 3 periods),
- 2. Average Performing (designated COD and an average of below 80% but above 60% LET passing rate inconsistently in the last 3 periods),
- 3. *Low Performing* (no designation and an average of 15% and below LET passing rate in the last 3 periods).

Meanwhile, the rest of the organizations were chosen based on their relevance to the study. Below are the inclusion criteria for selecting representatives from the different institutions:

- 1. TEC representative must have been a member for at least 1 year
- 2. CHED representative involved in TE QA/accreditation must have been involved in TE QA/accreditation for at least five years

Respondents from TEIs were categorized into the following:

- 1. College Dean or Program/Department chair of elementary and secondary programs (1 for each program/department; must be at least 1 year in term; must have been a TE faculty for 5 years)
- 2. Faculty from elementary and secondary programs (1 for each program/department; must be tenured; with experience in teaching university classes and mentoring practicum teachers)
- 3. Students (1 for each program/department; Graduating student with some field experience or is currently doing practicum teaching)

Invitations were sent to sample respondents upon receiving consent to conduct the interview and permission to record the session, KIIs and FGDs proceeded lasting around one hour each. Each session was done by a lead interviewer and a scribe.

Desk reviews and qualitative data were synthesized corresponding to research questions. To extract insights, themes, and patterns from the KIIs and FGDs, they were transcribed and coded manually into organized sheets. The themes were identified through recurrent responses relevant to informing research questions. Coding was followed by thematic analysis, with repeating responses and keywords highlighted, specifically those responding to the study's objectives. The qualitative data coded and analyzed were triangulated and synthesized with existing secondary data and desk reviews. A report is then drawn from this with main themes identified in triangulation used as outline for the results narrative, discussed further with synthesis and direct quotes from respondents.

3.2.4. Quantitative data gathering

Most of the secondary data were obtained from CHED and Professional Regulations Commission (PRC) and were used to situate the COEs and CODs, and to establish supporting literature including CHED issuances on COE and COD selection, HEI list, TEI enrollment and graduation data of TEIs, LET passing rates of HEIs participating in LET, and HEI faculty

profiles. These secondary datasets were processed and statistically analyzed using Stata to generate summary statistics, probability tests, and various figures. Much of the data processing involved descriptive analysis using Stata, to explicate the current disposition of COEs and CODs. Analyzing the LET Performance of TEIs requires varied levels of comparison. Since the two centers are distinct categories of academic institutions, there is a discussion comparing their mean rates using probability tests such as the T-Test and Variance Ratio Test (*F*-Test) to verify that the dataset or sample was robust for further inferential analysis. These selected probability tests were suitable given that the COE and COD group average passing rates are a small sample size.

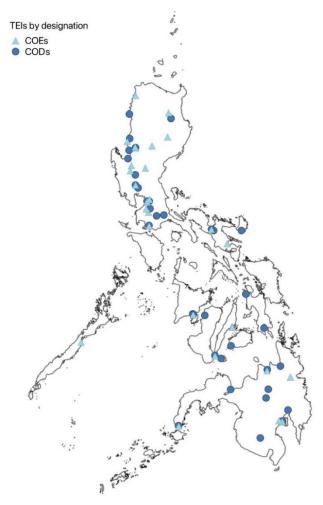
For the analysis of quantitative data, secondary datasets were processed and statistically analyzed using Stata to generate summary statistics, probability tests, and graphs. Much of the data processing involved descriptive analysis using Stata, to explicate the current disposition of COEs and CODs. Additionally, probability tests such as the *t*-test and *F*-test were used to verify that the dataset or sample was robust for further inferential analysis.

4. Results and discussion

4.1. Mapping of COEs and CODs shows disparities in regional distribution with notable concentration in NCR

For the mapping of COEs and CODs, the designated TEIs were first geotagged, then each location were marked on a dotted map across the Philippines Islands. The distribution on the map shows that the designated TEIS are passably scattered among the three major islands, Luzon, Visayas, and Mindanao, as seen in Figure 4.

Figure 4. Map of the distribution of COEs and CODs in the Philippines



Source: Author constructed based on the CHED HEI List 2023

Additionally, here are density maps using a graduated distribution of COEs and CODs, each designation group is regionally distributed in Figures 5 and 6.

COEs by Region

0

1-3
4-6
7-10

Cordillera Administrative Region (OAR)
Region II (Cagayan Valley)
Region I (Ilocos Region)

Region IV-A (Cafabarzon)

Region IV-A (Cafabarzon)

Region VI (Western Isayas)

Region VII (Central Visayas)

Region XIII (Caraga)

Figure 5. Regional distribution of COEs in the Philippines

Source: Author constructed based on the CHED HEI List 2023

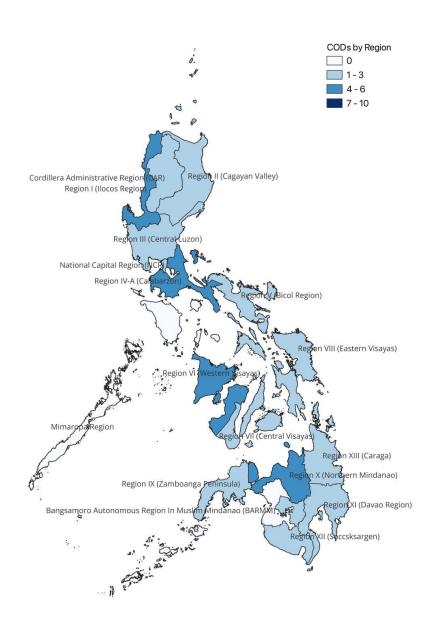
Figure 5 shows that the country has almost complete coverage of COEs. There are at least one (1) to three (3) COEs in Luzon, with a high concentration in NCR. Meanwhile in Visayas, there is a higher concentration for Central Visayas over Western Visayas and no COEs in Eastern Visayas. Lastly, there is minimum coverage for the regions in Mindanao, except for South Cotabato, Cotabato, and Sultan Kudarat, Sarangani, and General Santos City (SOCCSKSARGEN¹²) and the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM)¹³ that currently do not have any COEs in teacher education.

_

¹² SOCCSKSARGEN, comprised of the provinces of South Cotabato, Cotabato, Sultan Kudarat, Sarangani, and General Santos City, is known for agriculture, tuna fishing, and nature-based attractions.

¹³ BARMM, formerly ARMM until 2019, is the only autonomous region situated in southern Mindanao with a rich cultural diversity home to many ethnic groups. The religion has a predominantly Islamic heritage of Sunni Islam, and small minority of Shia Muslims.

Figure 6. Regional distribution of CODs in the Philippines



Source: Author constructed based on the CHED HEI List 2023

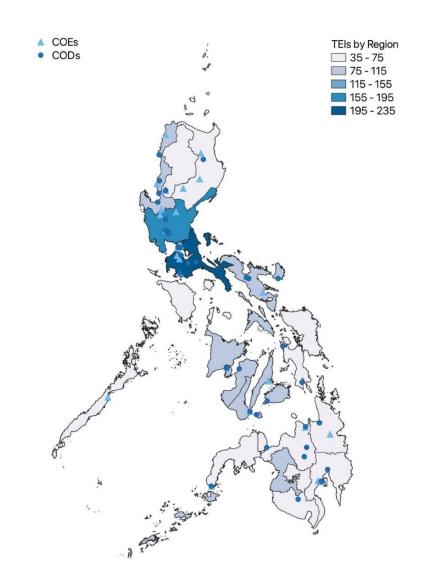
On the other hand, CODs are evenly distributed across the country, between 1-3 and 4-6 CODs in most regions. CODs in Luzon are sporadically distributed, but none in Region IV-B (MIMAROPA¹⁴). In Visayas, Western Visayas has more CODs than Central Visayas and Eastern Visayas. While regions in Mindanao have higher CODs than COEs in total, Northern Mindanao holds a higher count of CODs in teacher education; and still, none for BARMM.

-

¹⁴ Also known as Region IV-B, it is composed of five provinces, Mindoro, Marinduque, Romblon, and Palawan, in southwestern Luzon known for its natural beauty.

Figure 7 is a graduated density map of the regional distribution of TEIs. The coordinates of COEs and CODs were plotted on the same map to show the distribution of designated TEIs relative to the concentration of TEIs in each region.

Figure 7. Regional distribution of COEs and CODs among all TEIs in the Philippines



Source: Author constructed based on the CHED HEI List 2023

Figure 7 also shows that there are denser regions in Luzon than in Visayas and Mindanao, with the highest concentration of TEIs in Region IV-A (CALABARZON¹⁵). Other regions in Luzon are within the ranges 75-115 and 115-195 TEIs, or the average levels of distribution. Moreover, TEIs are sparse in the regions of Visayas and Mindanao.

Furthermore, a breakdown of the COEs and CODs in contrast to the regional distribution of all TEIs can be found in Table 4 below:

¹⁵ Comprised of the provinces of Cavite, Laguna, Batangas, Rizal, and Quezon, it is the most populated region in the Philippines as of 2020, located adjacent south of NCR. It is known for its agriculture and tourism and considered as an industrial powerhouse with 31 world-class industrial estates and economic zones.

Table 4. Number of TEIs, COEs, and CODs, by region as of 2023

| Region | HEIs | Total TEIs | Proportion of TEIs to HEIs (in%) | TEIs designated COE | TEIs designated COD |
|--------------------------|-------|---------------|--|---------------------------|---------------------------|
| PHILIPPINES | 2,465 | 1,553 | 63.00 | 36 | 38 |
| Luzon | 1460 | 881 | 60.34 | 25 | 18 |
| NCR | 322 | 142 | 44.10 | 7 | 2 |
| CAR | 56 | 35 | 62.50 | 3 | 1 |
| I – Ilocos Region | 115 | 78 | 67.83 | 3 | 4 |
| II – Cagayan Valley | 72 | 57 | 79.17 | 3 | 1 |
| III – Central Luzon | 258 | 167 | 64.73 | 3 | 3 |
| IVA – CALABARZON | 366 | 223 | 60.93 | 3 | 4 |
| IVB – MIMAROPA | 94 | 66 | 70.21 | 1 | - |
| V – Bicol Region | 177 | 113 | 63.84 | 2 | 3 |
| Visayas | 428 | 260 | 60.75 | 5 | 9 |
| VI – Western Visayas | 159 | 90 | 56.60 | 1 | 4 |
| VII – Central Visayas | 181 | 108 | 59.67 | 4 | 3 |
| VIII – Eastern Visayas | 88 | 62 | 70.45 | - | 2 |
| Mindanao | 577 | 412 | 71.40 | 6 | 11 |
| IX – Zamboanga Peninsula | 94 | 70 | 74.47 | 1 | 2 |
| X – Northern Mindanao | 109 | 66 | 60.55 | 2 | 4 |
| XI – Davao Region | 105 | 73 | 69.52 | 2 | 3 |
| XII – SOCCSKSARGEN | 102 | 74 | 72.55 | - | 1 |
| BARMM | 111 | 83 | 74.77 | - | - |
| Caraga | 56 | 46 | 82.14 | 1 | 1 |

Source: Tabulated by the authors using data from CHED (2023)

From Table 4, Luzon hosts most of the COEs with 25 designated institutions and seven COEs in the NCR cluster. Meanwhile, the Cordillera Administrative Region (CAR)¹⁶, Ilocos Region¹⁷, Cagayan Valley¹⁸, Central Luzon¹⁹, and CALABARZON each have three centers, showcasing a relatively equitable distribution across these regions. Luzon also hosts the most CODs, with a total of 18 designated TEIs, with both the Ilocos Region and CALABARZON contributing to majority of the distribution (4 CODs each). Central Luzon follows closely with three CODs, and NCR, Cagayan Valley, and the Bicol Region²⁰ each host two to three CODs. However, it is notable that MIMAROPA currently does not have any CODs.

-

¹⁶ Comprised of the provinces of Abra, Apayao, Benguet, Ifugao, Kalinga, and Mountain Province, it is the only landlocked region in the Philippines; a mountainous area located in the northern part of Luzon. These highlands are home to many attractions like the Banaue Rice Terraces indigenous communities such as the Igorot, Kalingan, Ifugaos, and more.

¹⁷ Includes the provinces of Ilocos Norte, Ilocos Sur, La Union, and Pangasinan, is known for their historic churches and beaches like Pagudpud and San Juan.

¹⁸ Housing the provinces of Batanes, Cagayan, Isabela, Nueva Vizcaya, and Quirino, and a vast agricultural hub famous for its rice and corn production, and the scenic Callao Caves.

¹⁹ Central Luzon encompasses Aurora, Bataan, Bulacan, Nueva Ecija, Pampanga, Tarlac, and Zambales. It is also known as the "Rice Granary of the Philippines," with notable attractions like Subic Bay, Mount Pinatubo, and the Pampanga culinary scene

[&]quot;Rice Granary of the Philippines," with notable attractions like Subic Bay, Mount Pinatubo, and the Pampanga culinary scene.

20 The region of Bicol is composed of Albay, Camarines Norte, Camarines Sur, Catanduanes, Masbate, and Sorsogon. Renowned for the majestic Mayon Volcano and its spicy cuisine, particularly Bicol Express.

Visayas has only five COEs and four situated in Central Visayas²¹, one in Western Visayas²², and none in Eastern Visayas²³. There are also 9 CODs distributed across the region and Western Visayas leads with four centers, followed by Central Visayas and Eastern Visayas with three and two centers, respectively. In Mindanao, there are six COEs and 11 CODs. Zamboanga Peninsula²⁴ and Caraga ²⁵each have one COE, whereas Northern Mindanao²⁶ and Davao Region²⁷ each have one COEs. These regions also have more CODs than COEs, except for Caraga which has equally one of each designation. Notably, SOCCSKSARGEN has no COEs and only has one COD, while BARMM has neither and no designated TEIs historically.

Moreover, characterizing COEs and CODs in Table 5, there are 14 COEs and nine CODs that are private sectarian institutions, and seven COEs and nine CODs that are private non-sectarian. Then representing the SUCs are 15 COEs and 20 CODs. Further breaking down the SUCs, it can be observed that SUC main campuses hold nine COEs and 16 CODs, whereas SUC satellite campuses have six COEs and four CODs. These data highlight the importance of SUCs, especially their main campuses, in driving the development and recognition of high-quality teacher education programs.

Table 5. Descriptive summary of COEs and CODs, as of 2023

| | COE | COD |
|-----------------------|--------------------|--------------------|
| Number of Schools | 36 | 38 |
| Average Age | 85 | 98 |
| by Island Group (in%) | | |
| NCR* | 7 (19.44%) | 2 (5.26%) |
| Luzon | 25 (69.44%) | 18 (47.37%) |
| Visayas | 5 (13.89) | 9 (23.68%) |
| Mindanao | 6 (16.67%) | 11 (28.95%) |
| by Program | | |
| Elementary | 36 | 38 |
| Secondary | 36 | 38 |
| by Institution Type | | |
| Total Private HEI | 21 | 18 |
| Private Sectarian | 14 | 9 |
| Private Non-Sectarian | 7 | 9 |
| Total SUC | 15 | 20 |
| SUC Main | 9 | 16 |
| SUC Satellite | 6 | 4 |

Average Age = number of years since TEIs establishment as of 2024

Note: *NCR is treated as a separate cluster as it bears a significant number of TEIs in the country.

Source: Authors' computation of the CHED HEI List

²¹ Includes Bohol, Cebu, Negros Oriental, and Siquijor. This region is known for the Chocolate Hills in Bohol and Magellan's Cross and the Ati-Atihan festival in Cebu.

and the Ati-Atihan festival in Cebu.

22 Covers Aklan, Antique, Capiz, Guimaras, Iloilo, and Negros Occidental, with famous attractions such as Boracay and Guimaras' mango plantations.

²³ Eastern Visayas comprises Biliran, Eastern Samar, Leyte, Northern Samar, Samar, and Southern Leyte, home to the San Juanico Bridge and Kalanggaman Island.

²⁴ Includes Zamboanga del Norte, Zamboanga del Sur, Zamboanga Sibugay, and Zamboanga City, known for the colorful vintas of Zamboanga and rich seafood cuisine.

²⁵ Known for surfing destinations in Siargao and lush forests. The region encompasses the provinces of Agusan del Norte, Agusan del Sur, Dinagat Islands, Surigao del Norte, and Surigao del Sur,

²⁶ A region of eco-tourism treasures, featuring Del Monte pineapple plantations, and Camiguin Island's hot springs and waterfalls. It covers Bukidnon, Camiguin, Lanao del Norte, Misamis Occidental, and Misamis Oriental.

²⁷ Home to the exotic durian fruit, Davao Region comprises Davao del Norte, Davao de Oro, Davao del Sur, Davao Occidental, and Davao Oriental, known for Mount Apo and Samal Island.

From Table 6, COEs and CODs make up only 2.32% and 2.45% of TEIs. Ideally, these institutions are expected to be nodes for quality teacher programs in their area of coverage as role models or leaders that aid through activities like benchmarking (CMO 26, s. 2007). Some TEIs are at a geographical disadvantage for benchmarking since COEs and CODs are scarce in some areas. For example, there are no COEs in the regions of Eastern Visayas and SOCCSKARGEN, no CODs in MIMAROPA, and neither COEs nor CODs in BARMM.

Table 6. Distribution of COEs and CODs, by Island Group as of 2023

| Region | Total TEIs | COE | Proportion to TEIs (%) | COD | Proportion to TEIs (%) |
|-------------|------------|-----|------------------------|-----|------------------------|
| PHILIPPINES | 1,553 | 36 | 2.32 | 38 | 2.45 |
| Luzon | 881 | 25 | 2.84 | 18 | 2.04 |
| Visayas | 260 | 5 | 1.92 | 9 | 3.46 |
| Mindanao | 412 | 6 | 1.46 | 11 | 2.67 |

Source: Authors' computation from the CHED HEI List (2023)

While there is only one COE in MIMAROPA to benchmark for the rest of the 65 TEIs in the region, it holds one of the least enrollees at 23,682, relative to the number of its TEIs when compared to the Cagayan Valley, which holds a higher number of enrollments at 26,457 with 57 TEIs, 3 of which are COEs and one COD. In Visayas, Eastern Visayas has the least number of enrollees, 44,299 students in 2023, but not significantly falling below its island group counterparts. Other regions in Visayas enrolled respectively, 44,756 and 54,006 teacher students, in Western Visayas and Central Visayas. Western Visayas have 90 TEIs and the Eastern Visayas only 62 TEIs. Furthermore, Eastern Visayas also has the fourth largest enrollment in CODs (0.76%) among the Visayan regions. More importantly, SOCCSKSARGEN and BARMM have the most TEIs in the Mindanao cluster, yet have less enrollees compared to the other regions in the area. BARMM also has the smallest enrollment relative to its number of schools, with 30,018 teacher students in 83 TEIs and no COEs or CODs to benchmark for the region, as seen in Table 7.

Table 7. Distribution and enrollment of TEIs, COEs and CODs, by region as of 2023

| Region | Total | | | COE | | | COD | | |
|-------------|------------------|---------|--------|------------------|--------|------|------|----------------|------|
| _ | TEIs Enrollees % | | % | TEIs Enrollees % | | % | TEIs | TEIs Enrollees | |
| PHILIPPINES | 1,553 | 700,615 | 100.00 | 36 | 44,393 | 6.34 | 38 | 46,426 | 6.63 |
| LUZON | 881 | 359,094 | 51.25 | 25 | 30,893 | 4.41 | 18 | 21,530 | 3.07 |
| NCR | 142 | 59,846 | 8.54 | 7 | 9,985 | 1.43 | 2 | 789 | 0.11 |
| CAR | 35 | 12,752 | 1.82 | 3 | 3,325 | 0.47 | 1 | 333 | 0.05 |
| 1 | 78 | 38,659 | 5.52 | 3 | 4,860 | 0.69 | 4 | 3,902 | 0.56 |
| II | 57 | 26,457 | 3.78 | 3 | 2,675 | 0.38 | 1 | 1,119 | 0.16 |
| III | 167 | 62,578 | 8.93 | 3 | 2,963 | 0.42 | 3 | 6,138 | 0.88 |
| IV-A | 223 | 65,715 | 9.38 | 3 | 1,645 | 0.23 | 4 | 6,349 | 0.91 |
| MIMAROPA | 66 | 23,682 | 3.38 | 1 | 1,026 | 0.15 | - | - | - |
| V | 113 | 69,405 | 9.91 | 2 | 4,414 | 0.63 | 3 | 2,900 | 0.41 |
| VISAYAS | 260 | 143,061 | 20.42 | 5 | 7,519 | 1.07 | 9 | 10,753 | 1.53 |
| VI | 90 | 44,756 | 6.39 | 1 | 2,645 | 0.38 | 4 | 2,968 | 0.42 |
| VII | 108 | 54,006 | 7.71 | 4 | 4,874 | 0.70 | 3 | 2,455 | 0.35 |
| VIII | 62 | 44,299 | 6.32 | - | - | - | 2 | 5,330 | 0.76 |
| MINDANAO | 412 | 198,407 | 28.32 | 6 | 5,981 | 0.85 | 11 | 14,143 | 2.02 |
| IX | 70 | 37,165 | 5.30 | 1 | 208 | 0.03 | 2 | 5,398 | 0.77 |

| X | 66 | 35,738 | 5.10 | 2 | 2,245 | 0.32 | 4 | 4,987 | 0.71 |
|---------|----|--------|------|---|-------|------|---|-------|------|
| XI | 73 | 38,355 | 5.47 | 2 | 2,874 | 0.41 | 3 | 2,870 | 0.41 |
| XII | 74 | 37,115 | 5.30 | - | - | - | 1 | 523 | 0.07 |
| BARMM | 83 | 30,018 | 4.28 | - | - | - | - | - | - |
| CARAGA | 46 | 20,016 | 2.86 | 1 | 654 | 0.09 | 1 | 365 | 0.05 |
| Unknown | - | 53 | 0.01 | | | | | | |

Source: Authors' computation of the CHED HEI Enrollees and Graduates

4.2. CODs and COEs perform better in LET passing rates than other TEIs

The Philippine Business for Education (PBEd) raised concerns regarding Philippine COEs performance in the LET. Key issues found by PBEd (2023) include quality assurance systems, alignment of curriculum to LET, faculty development, and research and innovation. However, data still show that relative to other TEIs, CODs and COEs still perform better in LET.

Test scores of COEs are expected to be different from CODs. As part of the selection process for COEs and CODs, the initial screening for these designations are: (1) a Level II accreditation; (2) at least an EGEP rating of "Very Good"; and (3) included in the top 10 (for COEs) and ranks 11 to 20 (for CODs) in all categories of higher performing TEIs. The distinction between the two groups is ranking among high performing TEIs and the additional minimum required average passing rate. To qualify for COE/COD designation, the two groups need to meet the average passing rate of 65% and above for CODs and a rating of 75% and up for COEs for a period of three consecutive years (or 6 exams) (CMO 26, s. 2007).

We conducted an empirical analysis to probe on the differences in LET results. We use the BLEPT 2010–2022–a longitudinal dataset of the LET performance of HEIs, categorized into two education programs: elementary and secondary. It contains the annual average passing rate of HEIs from 2010 to 2022 (except for 2020²⁸). Each year has three groups of scores: first time takers, repeaters, and the sum of both or "total passing". Lastly, a 12-year average of the LET passers for each group has been computed. Based on the designation criteria, COEs are institutions with higher rate requirements (75%) over CODs (65%).

We implemented a regression analysis with the 12-year average passing rate of first-time takers (i.e., as the percentage of students passing the test over the period of 12 years) as the dependent variable and a dummy variable (1 if yes; 0 otherwise) indicating whether the HEI is COE, COD, or simply a TEI (i.e., non-COE/COD designated HEIs) as independent variables. Two sets of regressions were estimated—one for elementary level and the other for secondary level. Due to the presence of heteroscedasticity, robust OLS regression was implemented. Regression results are summarized in Table 8 and Table 9 for elementary and secondary levels, respectively.

From Table 8 and Table 9, note that Equation 1 includes both predictors, COE and COD, with HEIs that are neither COE nor COD as the base category to compare the effects of being a designated HEI over non-designated HEIs. Equation 2 includes COE designation as predictor with non-COE designation as base category, while Equation 3 includes COD designation as predictor with non-COD designation as base category. Estimating using Equation 2 and Equation 3 was done because including both COE and COD as predictors results to severe multicollinearity since the two groups are correlated. That is, some COEs may overlap with

-

 $^{^{\}rm 28}$ LET 2020 was cancelled by PRC due to COVID19.

CODs in some institutional characteristics. In addition, referring to the criteria of the two designations, the items to qualify for the two designations are similar.

From Equation 2 in Table 8, results show that at the elementary level, COEs have a significant average of 34.05 points higher passing rates compared to CODs. Meanwhile, CODs have an estimated passing rate of the intercept 48.87 percent. However, its coefficient of determination (R^2) indicates that only about 5.27 percent of the variance in the passing rate is explained by whether an institution is a COE or COD. That is, we can construe that COEs appear to have substantially higher test passing rates compared to CODs.

From Equation 3 in Table 8, results show that at the elementary level, being a COD is associated with a statistically significant increase of 23.45 percent points in the passing rates compared to a non-COD whose average passing rate is only at 49.07 percent points. Referring to the R^2 , only 2.71 percent of the variance in the passing rate is explained by COD status.

On the basis of the R^2 of both Equation 2 and Equation 3 in Table 8 suggests that other factors may influence passing rates. Results of models do not establish causality, but only association between COE and COD status and higher passing rates. However, it can be construed that COEs outperform CODs and non-COEs in LET passing rates at the elementary level.

Table 8. Results of robust OLS regression (elementary)

| Equation | 1 | | 2 | | 3 | | |
|------------------|-----------|---------|-----------|---------|-----------|----------|--|
| Y_i | ft_passin | g_12yrs | ft_passin | g_12yrs | ft_passin | ng_12yrs | |
| COE | 34.688 | ** | 34.045 | ** | | | |
| | (1.551) | | (1.549) | | | | |
| COD | 24.300 | ** | | | 23.452 | ** | |
| | (2.110) | | | | (2.110) | | |
| Intercept | 48.226 | ** | 48.870 | ** | 49.074 | ** | |
| | (0.591) | | (0.587) | | (0.595) | | |
| Number of | 1,470 | | 1,470 | | 1,470 | | |
| observations | 1,470 | | 1,470 | | 1,470 | | |
| ** p<0.01, * p<0 | .05 | | | | | | |

Source: Estimated by the authors

From Equation 2 in Table 9, results show that at the secondary level, COEs have a significant average of 29.19 points higher passing rates compared to CODs, with CODs having an estimated passing rate of 51.17 percentage points only. Although its R^2 of 0.0233 indicates that only about 2.33 percent of the variance in the passing rate is explained by whether an institution is a COE or COD, holding other factors constant, it can be seen that COEs appear to have substantially higher test passing rates compared to CODs in the secondary level as well.

From Equation 3 in Table 9, results show that at the secondary level, being a COD is associated with a statistically significant increase of 16.20 percent points in the passing rates; and if an institution is not a COD, average passing rate is only at 51.36. However, only 0.76 percent of the variance in the passing rate is explained by COD status.

On the basis of the R^2 of both Equation 2 and Equation 3 in Table 9 suggests that other factors may influence passing rates. Results do not establish causality, but only association between COE and COD status and higher passing rates. However, it can be construed that COEs outperform CODs and non-COEs in LET passing rates at the secondary level.

Table 9. Results of robust OLS regression (secondary)

| Equation | 1 | 1 2 | | 2 | | 3 |
|-------------------|-----------|-----------------------------|---------|---------|-----------|----------|
| Y_i | ft_passin | assing_12yrs ft_passing_12v | | g_12yrs | ft_passin | ng_12yrs |
| COE | 29.469 | ** | 29.190 | ** | | |
| | (1.756) | | (1.754) | | | |
| COD | 16.661 | ** | | | 16.192 | ** |
| | (2.202) | | | | (2.202) | |
| Intercept | 50.892 | ** | 51.171 | ** | 51.361 | ** |
| | (0.501) | | (0.496) | | (0.500) | |
| Number of | 2 200 | | 2 200 | | 2 200 | |
| observations | 2,300 | | 2,300 | | 2,300 | |
| ** p<.01, * p<.05 | 5 | | | | | |

Source: Estimated by the authors

Comparing results of Equation 2 and Equation 3 from Table 8 and Table 9, it is apparent that Equation 2 (with COE as predictor) has the superior performance since it explains more variation in the LET passing rates. On the basis of R^2 , holding other factors constant, the COE status accounts for a greater share of the passing rate variation. Moreover, the COE coefficients (34.05 and 29.19) are larger than CODs (23.45 and 16.20) suggesting that being a COE has a stronger positive impact on passing rates than being a COD or non-COE. Since both equations are statistically significant, the COE provides a better fit. Therefore, it can be construed that in both elementary and secondary program levels, COEs consistently outperformed CODs and non-COEs in terms of explaining LET passing rates.

Table 10 shows the average passing rates of COEs and CODs from the last validity period. There is no available documentation if exceptions were made with some COEs and CODs that were not able to meet the minimum required average passing rate to retain their respective designations, since some TEIs really fell below the six exam periods (i.e., three years) in the 2016-2018 validity period.

Table 10. Average passing rates for COEs/CODs by group and program level, from 2016 to 2019

| | 2016 | 2017 | 2018 | 3-Year Period (2016-2018) | 2019 |
|-------------|-------|-------|-------|---------------------------|-------|
| COEs & CODs | | | | | |
| Elementary | 78.28 | 73.22 | 66.24 | 72.58 | 77.81 |
| Secondary | 72.73 | 76.28 | 78.02 | 75.68 | 73.33 |
| COEs | | | | | |
| Elementary | 83.31 | 81.89 | 72.28 | 79.16 | 82.63 |
| Secondary | 80.03 | 82.23 | 83.06 | 81.86 | 78.56 |
| CODs | | | | | |
| Elementary | 73.24 | 64.55 | 60.19 | 65.99 | 72.98 |
| Secondary | 65.44 | 70.32 | 72.97 | 69.58 | 68.10 |

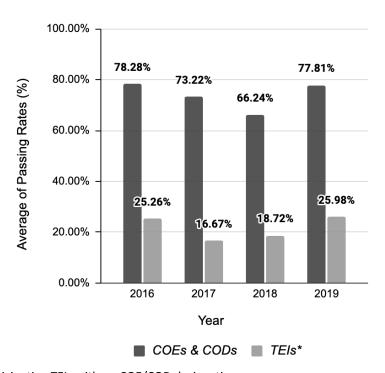
Source: Authors' computation of the PRC LET Results 2010-2022

Appendix D reports that in COEs, for both elementary and secondary levels, the lowest combined average passing rate is at 59.10% with 12 COEs renewed without meeting the minimum requirement and only 24 qualified based on the criteria. Meanwhile, a more concerning gap between the criteria and actual scores can be observed in CODs (see Appendix E) with the lowest combined passing rate of 18.79%, 15 CODs renewed below the required

passing rate and 23 qualified retentions. But overall, Table 10 shows an average trend of both designations, and the numbers show that the combined average for all COEs meet the required passing rates for elementary and secondary levels (79.16% and 81.86%) —which is also the case for the combined average for all CODs in both levels (65.99% and 69.58%, accordingly). Comparing the scores between the periods 2018 and 2019, there is a noticeable drop in both COEs and CODs for secondary level, and the opposite movement for the elementary level where both groups had significant increases.

Figure 8 shows the data of LET passing rates in elementary from 2016 to 2019 for COEs and CODs including the overall passing rates of all TEIs. The averages of both COEs and CODs were grouped together by every LET period, in comparison to the total average of all LET participating TEIs with no COE/COD designation. A fluctuation in terms of the data presented from each domain can be observed. COEs maintained relatively high passing rates throughout the period, starting at 78.28% in 2016, dipping slightly to 73.22% in 2017, experiencing a more significant drop to 70.27% in 2018, and then rebounding to 80.34% in 2019. CODs on the other hand, experienced a more pronounced decline from 73.24% in 2016 to 66.24% in 2018, followed by a recovery to 77.81% in 2019.

Figure 8. Average passing rate of COEs/CODs and all non-designated TEIs in the Elementary Level (from the PRC LET Results for 2016-2019), from 2016 to 2019



Note: *All LET participating TEIs with no COE/COD designations.

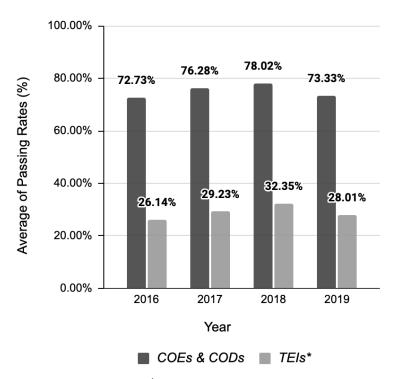
Source: Authors' computation

Figure 9 compares the performances of secondary teacher education graduates from TEIs with COE and COD seals and the overall passing rates of all TEIs. COEs and CODs still maintain consistently high passing rates even with minor fluctuations. The group garnered a passing rate of 72.73% in 2016 and rose to 76.28% in 2017. The passing rate peaked at 78.02.% in 2018 but had a sudden small decline down to 73.33% in 2019. Despite the small drops in numbers

in 2019, COEs and CODs still achieved a general increasing trend with consistent high passing rates relative to all other TEIs.

Figure 9 also shows this significant disparity between the performance of COEs and CODs and the overall performance of all TEIs. Comparing the overall passing rates for all non-designated TEIs, numbers show an improvement from 26.14% in 2016 to 32.35% in 2018, before having a small drop down to 28.01% in 2019. Despite the improvement in 2016 to 2018, the overall passing rates of TEIs remained significantly lower than those of COEs and CODs. This indicates that while COEs and CODs give higher performances, the general TEI landscape still faces challenges with the lower passing rates.

Figure 9. Average passing rate of COEs/CODs and all non-designated TEIs in the Secondary Level (from the PRC LET Results for 2016-2019), from 2016 to 2019



Note: *All LET participating TEIs with no COE/COD designations.

Source: Authors' computation

4.3. COEs and CODs have better faculty qualifications

Education reforms aim to professionalize teacher education by extending its duration, advancing it to graduate-level programs, and regulating it through licensure, certification, and promotion processes aligned with established standards (Darling-Hammond 2000). Our qualitative data also supports this, as COE representatives claim that by upholding the quality of their faculty, they can promote a culture of excellence and inspiring their students to excel. Professional development measures among faculty are also incentivized through recognitions or research grants in some COEs. Student respondents from COEs also asserted the influence of faculty quality on their performance, citing pedagogy and course activities as highly influential to how they grow as professional teachers themselves.

Table 11 reflects the number of faculty with graduate degrees for COEs, CODs, and other TEIs. COEs and CODs have a higher percentage of faculty with graduate degrees compared to TEIs without designation. This data also supports the FGD and KII findings from COE and COD representatives echoing faculty qualification being a pillar of upholding quality and of maintaining their titles. When asked about how they maintain quality and performance, all COEs consistently include faculty qualifications as one of priority areas. In numerous countries, enhancing teacher qualifications linked to student learning has become a key focus of education reforms.

Table 11. Distribution of faculty with graduate degrees by designation and institution type, from SY 2015-16 to SY 2016-17

| | SY 2015-16 | | SY 2016-17 | |
|---|------------|---------|------------|---------|
| | SUC | non-SUC | SUC | non-SUC |
| TOTAL TEI FACULTY WITH GRADUATE DEGREES | 24,646 | 49,677 | 24,722 | 48,522 |
| (in %) | 38.44 | 43.10 | 38.85 | 42.54 |
| COE & COD faculty with graduate degrees | 4,436 | 7,962 | 4,435 | 7,745 |
| (in %) | 42.05 | 49.23 | 42.37 | 48.47 |
| Non-designated TEI* faculty with graduate degrees | 20,210 | 41,715 | 20,287 | 40,777 |
| (in %) | 37.73 | 42.10 | 38.16 | 41.57 |

Non-designated = not a COE/COD

Note: Percent values are relative to other faculty groups by educational attainment (see Appendix F).

Source: Authors' computation of CHED HEI Faculty

4.4. Enrollment rates remain high for TEIs without designation as COEs and CODs

To further discuss disparities in enrollment and graduation levels, the demographic profile of teacher education student enrollees and graduates of all programs under the Education Science and Teacher Training for the academic year (AY) 2020-21, are tabulated by designation in Tables 12 and 13. Statistically, the two programs, Bachelor of Elementary Education (BEEd) and Bachelor of Secondary Education (BSEd), hold the most enrollees compared to other programs in the discipline group (see also Appendix C) at 26.14% and 37.33%, respectively. Consistently, the secondary education program has more enrollees in the academic year across all types of TEI designation and non-designation.

In terms of the demographic distribution among the students, females dominate the enrollment at 73.23% over the male enrollees of 26.77% in the program. The results reflect a phenomenon in the Philippines as also found in Orbeta et al. (2018), where more female students continue their education, and more male students drop out early to enter the labor market due to circumstances.

Meanwhile, there are more enrollees in public TEIs than in private TEIs, 402,543 and 298,072 respectively. Based on the breakdown in Table 11, most teacher education students enrolled in public TEIs are from both types of SUCs (main and satellite) with a combined proportion of 23.77 and 21.85% (or a total of 45.62%) in the overall number of enrollees in public TEIs.

It should also be noted that there the distribution difference between SUC Main and Satellite COEs and CODs in Table 12 is because there are more SUC Main schools with designated teacher education programs than there are designated centers in SUC Satellites.

Table 12. Proportion of teacher education enrollment in COEs/CODs to total TEI enrollees, AY 2020-2021

| Category | All TEIs | | COEs | | CODs | |
|-----------------------|----------|--------|--------|--------|--------|--------|
| cutchol 4 | Number | % | Number | % | Number | % |
| ENROLLEES | 700,615 | 100.00 | 44,393 | 100.00 | 46,426 | 100.00 |
| Female | 513,050 | 73.23 | 31,018 | 69.87 | 33,517 | 72.19 |
| Male | 187,565 | 26.77 | 13,375 | 30.13 | 12,909 | 27.81 |
| by PSCED | | | | | | |
| BEEd | 183,133 | 26.14 | 4,587 | 10.33 | 6,441 | 13.87 |
| Based | 261,510 | 37.33 | 11,034 | 24.86 | 17,089 | 36.81 |
| Others* | 255,972 | 36.54 | 28,772 | 64.81 | 22,896 | 49.32 |
| by HEI Type | | | | | | |
| Private | 298,072 | 42.54 | 14,766 | 33.26 | 9,225 | 19.87 |
| Private Sectarian | 57,912 | 8.27 | 9,181 | 20.68 | 4,544 | 9.79 |
| Private Non-Sectarian | 240,160 | 34.28 | 5,585 | 12.58 | 4,681 | 10.08 |
| Public | 402,543 | 57.46 | 29,627 | 66.74 | 37,201 | 80.13 |
| LUC | 80,553 | 11.50 | - | - | - | - |
| SUC Main | 166,536 | 23.77 | 22,011 | 49.58 | 31,589 | 68.04 |
| SUC Satellite | 153,074 | 21.85 | 7,616 | 17.16 | 5,612 | 12.09 |
| Others** | 1,479 | 0.21 | - | - | - | - |
| Not Specified*** | 901 | 0.13 | - | - | - | - |
| by Program Level | | | | | | |
| Baccalaureate | 564,262 | 80.54 | 27,786 | 62.59 | 34,506 | 74.32 |
| Master's | 108,575 | 15.50 | 10,909 | 24.57 | 8,451 | 18.20 |
| Doctorate | 19,236 | 2.75 | 3,676 | 8.28 | 2,600 | 5.60 |
| Pre-baccalaureate | 1,842 | 0.26 | 226 | 0.51 | 555 | 1.20 |
| Post Baccalaureate | 6,700 | 0.96 | 1,796 | 4.05 | 314 | 0.68 |

PSCED = Philippine Standard Classification of Education; BEEd = Bachelor of Elementary Education; BSEd = Bachelor of Secondary Education; LUC = Local Universities and Colleges; SUC = State Universities and Colleges Notes: * Other programs that are under the Education Science and Teacher Training.

Source: Authors' computation of the CHED HEI Enrollees and Graduates

Despite most enrollees in private non-sectarian schools at 240,160 enrollees compared to private sectarian schools at 57,912 enrollees, there are more students enrolled in private sectarian COEs (20.68%) than private non-sectarian COEs (12.58%) simply because there are more COEs in sectarian (14 COEs) than the non-sectarian (7 COEs) private TEIs as shown in Table 3.

Lastly, enrollment numbers narrow towards higher program levels in the overall distribution of TEIs with an inconsistent enrollment in post-baccalaureate programs for students who aim to complete graduate level coursework without being formally enrolled or admitted in a graduate program. There is also a spike in the enrollment for post-baccalaureate programs in COEs with 1,796 (4.05%) students enrolled for AY 2020-21.

During the same academic period, there were a few different highlights in the graduation numbers of TEIs as shown in Table 13. First, we note the consistent distribution of graduates in BEEd (26.72%) and BSEd (28.02%) programs. This is also the same for the distribution of

^{**} Includes CHED Supervised Institutions, Other Government Schools, and Special HEIs.

^{***} Institution types are not available.

male (28.42%) to female (71.58%) graduates. It should also be noted that the graduation numbers apply to the senior students of the programs and do not apply to the enrolled students as of the same academic year, so the numbers focus on the performance of the TEIs within the identified academic period and not the actual performance of the same batch of students in completing the program.

Table 13. Proportion of teacher education graduation in COEs/CODs to total TEI graduates, AY 2020-2021

| Category | TEIs | | COEs | | CODs | |
|-----------------------|--------|--------|--------|--------|--------|--------|
| , | Number | % | Number | % | Number | % |
| GRADUATES | 68,769 | 100.00 | 2,776 | 100.00 | 3,762 | 100.00 |
| Female | 49,226 | 71.58 | 1,971 | 71.00 | 2,544 | 67.62 |
| Male | 19,543 | 28.42 | 805 | 29.00 | 1,218 | 32.38 |
| by PSCED | | | | | | |
| BEEd | 18,376 | 26.72 | 338 | 12.18 | 436 | 11.59 |
| Based | 19,270 | 28.02 | 411 | 14.81 | 738 | 19.62 |
| Others* | 31,123 | 45.26 | 2,027 | 73.02 | 2,588 | 68.79 |
| by HEI Type | | | | | | |
| Private | 32,911 | 47.86 | 1,795 | 64.66 | 805 | 21.40 |
| Private Sectarian | 6,486 | 9.43 | 1,303 | 46.94 | 344 | 9.14 |
| Private Non-Sectarian | 26,425 | 38.43 | 492 | 17.72 | 461 | 12.25 |
| Public | 35,858 | 52.14 | 981 | 35.34 | 2,957 | 78.60 |
| LUC | 5,677 | 8.26 | - | - | - | - |
| SUC Main | 13,423 | 19.52 | 836 | 30.12 | 2,440 | 64.86 |
| SUC Satellite | 16,752 | 24.36 | 145 | 5.22 | 517 | 13.74 |
| Others** | 6 | 0.01 | - | - | - | - |
| by Program Level | | | | | | |
| Baccalaureate | 44,983 | 65.41 | 978 | 35.23 | 1,334 | 35.46 |
| Master's | 19,127 | 27.81 | 1,306 | 47.05 | 1,710 | 45.45 |
| Doctorate | 2,669 | 3.88 | 221 | 7.96 | 316 | 8.40 |
| Pre-baccalaureate | 562 | 0.82 | 142 | 5.12 | 253 | 6.73 |
| Post Baccalaureate | 1,428 | 2.08 | 129 | 4.65 | 149 | 3.96 |

PSCED = Philippine Standard Classification of Education; BEEd = Bachelor of Elementary Education; BSEd = Bachelor of Secondary Education; LUC = Local Universities and Colleges; SUC = State Universities and Colleges Notes: * Other programs that are under the Education Science and Teacher Training.

Source: Authors' computation of the CHED HEI Enrollees and Graduates

The same trends for private and public TEIs are also shown in the graduation levels. Going by type of HEI, there are: 32,911 total graduates from private TEIs, 6,486 (9.43%) of which are in private sectarian and 26,425 (38.43%) are in private non-sectarian; 35,852 total graduates from public TEIs, 5,677 (8.26%) are from local universities and colleges (LUCs), 13,423 (19.52%) are from SUC main schools, 16,752 (24.36%) from SUC satellite schools, and 6 (0.01%) from other types of HEIs. Additionally, the narrowing of the enrollment in higher program levels is the same in graduation levels except for less graduates in post-baccalaureate in COEs. This could be explained by assessing the enrollment of the graduates relative to their respective year of entry.

^{**} Includes CHED Supervised Institutions, Other Government Schools, and Special HEIs.

Table 14 shows the distribution of enrollment and graduation numbers for COEs and CODs relative to the total enrollees and graduates of all TEIs over four school years (SY) from 2017 to 2021.

Table 14. Proportion of pre-service enrollees and graduates in COEs, CODs, and non-designated TEIs relative to total TEI enrollment and graduation, from SY 2017-2018 to SY 2020-2021

| | 2017-18 | 2018-19 | 2019-20 | 2020-21 | Δ% |
|-----------------------------------|---------|---------|---------|---------|--------|
| TOTAL TEIS | | | | | |
| Number enrollees | 430,393 | 435,222 | 451,001 | 499,119 | 16.0 |
| Number of graduates | 117,305 | 123,821 | 63,053 | 41,353 | (64.7) |
| (by designation) | | | | | |
| COEs | | | | | |
| Number of enrollees | 26,152 | 27,592 | 24,473 | 27,648 | 5.7 |
| Number of graduates | 9,265 | 8,980 | 3,662 | 940 | (89.9) |
| % of enrollees from COEs to total | 6.1 | 6.3 | 5.4 | 5.5 | |
| % of graduates from COEs to total | 7.9 | 7.3 | 5.8 | 2.3 | |
| CODs | | | | | |
| Number of enrollees | 28,772 | 29,740 | 30,562 | 45,889 | 59.5 |
| Number of graduates | 10,424 | 10,769 | 3,692 | 1,444 | (86.1) |
| % of enrollees in CODs to total | 6.7 | 6.8 | 6.8 | 9.2 | |
| % of graduates in CODs to total | 8.9 | 8.7 | 5.9 | 3.5 | |
| (by group) | | | | | |
| COEs & CODs | | | | | |
| Number of enrollees | 54,924 | 57,332 | 55,035 | 73,537 | 33.9 |
| Number of graduates | 19,689 | 19,749 | 7,354 | 2,384 | (87.9) |
| % of enrollees in COEs & CODs | 12.8 | 13.2 | 12.2 | 14.7 | |
| % of graduates in COEs & CODs | 16.8 | 15.9 | 11.7 | 5.8 | |
| Non-designated TEIs* | | | | | |
| Number of enrollees | 375,469 | 377,890 | 395,966 | 425,582 | 13.3 |
| Number of graduates | 97,616 | 104,072 | 55,699 | 38,969 | (60.1) |
| % of enrollees in non-designated | | | | | |
| TEIs | 87.2 | 86.8 | 87.8 | 85.3 | |
| % of graduates in non-designated | | | | | |
| TEIs | 83.2 | 84.1 | 88.3 | 94.2 | |

Notes: Non-designated = not a COE/COD; Δ % = rate of change between SY 2017-18 and SY 2020-21

Source: Authors' computation of the CHED HEI Enrollees and Graduates

Focusing on pre-service teacher education students, enrollment numbers from COEs and CODs show an increasing trend relative to the overall enrollees in TEIs. Total enrollees in all teacher education programs maintained a steady increase, growing from 40,393 in 2017-2018 to 499,119 in 2020-2021, a growth rate of 16%. However, graduation experienced a sharp decline dropping from 117,305 in 2017-2018 to 41,353 in 2021-2021, representing a decrease of 64.7%.

Though COEs had a small fluctuation in enrollments in 2019-2020 (24,473), they have evidently recovered in 2020-2021, capping at 27,648 total enrollees. Meanwhile, enrollment in CODs consistently increased their numbers peaking at 45,889 in the same year. Despite these positive trends in the levels of enrollment, the percentage of total TEI enrollees from COEs has experienced a minor decline from 6.1% to 5.5%, while CODs have shown a steady growth from 6.7% to 9.2%. Comparing the numbers of COEs and CODs, it suggests that while there

is a decrease in the enrollment in COEs, CODs are becoming a more significant part of the overall TEI enrollment landscape. This overall steady percentage of enrollees in COEs and CODs compared to total TEI enrollees reflects the sustained interest in these top-tier TEIs.

However, graduation figures show a different shift from the trend of enrollment. Both COEs and CODs experienced a significant drop in the number of graduates from 2019-2020 to 2020-2021. COE graduates dropped from 9,265 in 2017-2018 to only 940 in 2020-2021, while CODs dropped from 10,424 to 1,444 over the same period. These declines are also reflected in the percentages of total TEI graduates, with COEs dropping from 7.9% to 2.3% and CODs from 8.9% to 3.5%.

Besides disparities in TEI enrollment and graduation numbers for COEs and CODs, the numbers in Table 14 were also grouped into designated and non-designated TEI, which are subtracted from the total TEIs, by separating the group from the combined statistics of COE and COD institutions. Collectively, COEs and CODs comprise 12.8% (54,924) of enrollees and 16.8% (19,689) of graduates in pre-service teacher education for all programs. Enrollment rates in designated TEIs showed a slight increase to 14.7% (73,537 students) by SY 2020-2021, alongside a steep decline in number of graduates from 16.8% to only 5.8% or 2,384 graduates.

Non-designated TEIs consistently dominate with around 85 to 87% of total enrollees annually, and an absolute enrollment that went up from 375,369 in 2017-18 to 425,582 students in 2020-2021. Even though graduation numbers fall across all groups, non-designated TEIs maintain the majority share of total graduates from 2017-2018 (83.2%) to 2020-2021 (94.2%) relatively, despite the absolute number of graduates seemingly decreasing from 97,616 to 38,969.

Overall, the number of TEI graduates has declined drastically, indicative of systemic problems likely exacerbated by external factors such as the COVID-19 pandemic. The significant decrease in graduates also underlines potential issues in student retention and completion rates in top tier TEIs that need to be addressed to improve overall educational outcomes. It can also be noted that contributions and influence of COEs and CODs can be limited by the low enrollment and graduate rates compared to non-designated TEIs.

4.5. The COE and COD rewards and incentives need to be revisited to motivate more TEIs to apply

Being designated as a COE or COD in the Philippines in the field of teacher education carries several benefits for the institution and its stakeholders. Among these are enhanced funding opportunities, access to networks and collaborations, and recognition and prestige (CMO No. 20, s. 2004). "I think it's close to 2,000,000 pesos when we were awarded a Centre of Excellence", said one of our FGD participants from a COE. With enhanced funding opportunities such as receiving million-peso award money, COEs and CODs may be eligible for increased funding and resources from government agencies, private organizations, and international partners. This additional support enables them to further develop and expand their teacher education programs, facilities, and research initiatives. However, interviews with COEs reveal unequal amounts of award money received, and some even reported not having received any at all upon being designated as COE.

As HEI leaders, COEs and CODs have opportunities to collaborate with other leading institutions, government agencies, industry partners, and international organizations. These partnerships facilitate knowledge exchange, research collaborations, student exchanges, and

professional development opportunities for faculty and staff. Finally, having the COE or COD seal comes with recognition and prestige that they demonstrate exceptional performance and leadership in teacher education. This recognition enhances the institution's reputation both nationally and internationally, attracting talented faculty, students, and collaborators. They can impact national education policies as they play a crucial role in shaping national education policies and initiatives related to teacher education. Their expertise and research contributions inform policy development, curriculum design, and strategies for improving the overall quality of education in the Philippines.

According to COE representatives, the process of applying for the title is tedious. The amount of paperwork and time required does not commensurate with the benefits they get. Some COE faculty also mentioned that the title is double edged, because they are expected to do so much for a mere title. Respondents also aired that incentives should be more enticing to encourage more TEIs to apply and therefore promote quality.

4.6. CHED framework and process for COE selection emphasize compliance over impact and outcomes

Most COEs in teacher education around the world are university-based institutions that serve as leaders in their respective countries' education sectors. Examples include the Centre for Excellence in Teacher Education (CETE) in Mumbai, India, the National Institute of Education (NIE) in Singapore, various Centers of Excellence in Teacher Education housed within universities in the United States, and Malaysia's High Performing Schools (HPS), Cluster schools, and Trust Schools. These COEs are renowned for their exemplary teacher training programs, innovative research initiatives, and significant contributions to the advancement of pedagogy and educational practice.

The concept of COEs and CODs overseen by CHED in the Philippines resembles the Center for Excellence in Teaching and Learning (CETL) initiative of the Higher Education Funding Council for England (HEFCE) as both prioritize excellence in education and seek to foster continuous improvement in teaching standards and student outcomes (HEFCE 2011; Department for Business, Innovation & Skills 2010).

In contrast to the *outcomes and impact* focus of international frameworks, the Philippines employs an evaluation framework emphasizing *compliance with standards and guidelines* set by CHED. Focused on criteria such as curriculum design, faculty qualifications, and quality assurance mechanisms, the Philippine framework aims to ensure adherence to CHED's standards for teacher education. Evaluation relies on data provided by TEIs, verified through document review, site visits, and interviews, to foster continuous improvement and excellence in teacher education in the country.

Based on the existing framework, the Philippines places a strong emphasis on adherence to standards set by CHED, focusing on criteria like curriculum design and faculty qualifications. In contrast, international frameworks, such as the CETL initiative in the United Kingdom, prioritize outcome assessment and impact evaluation. They assess various dimensions of performance, including teaching and learning practices, collaboration, sustainability, and cross-disciplinary impact, providing a more comprehensive assessment of effectiveness.

These policies were found to influence the growth of COEs and CODs. Based on a list of CHED issuances related to designation of teacher education programs, the study trails the

historical growth COEs and CODs through a desk review—specifically, by tracking changes in the list of officially recognized TEIs. Even though there are no summarized statistics for use presently, these issuances contain substantial information (e.g., validity of designation, school name and address) to trail historical changes as documented (see Appendix A). The number of COEs and CODs have been tabulated by year of issuance in Figure 10 to represent each group's historical growth.

The number COEs and CODs have grown significantly since the issuance of CMO No. 26, s. 2007, when the applications for HEIs were opened with the release of specific guidelines on identifying teacher education institutions for designation. And the first complete list of selected TEIs was included in the issuance of CMO No. 31, s. 2008, starting at 14 COEs and five CODs for the first three-year period from 2008 to 2011.

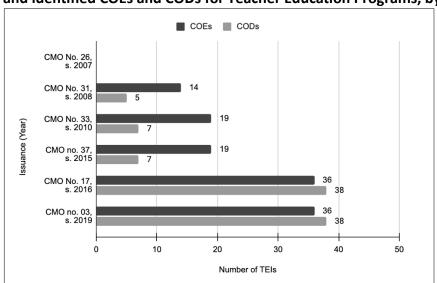


Figure 10. The growth of COEs and CODs based on all the CHED issuances on guidelines and identified COEs and CODs for Teacher Education Programs, by date of issuance

Source: CHED issuances.

The succeeding issuances no longer listed the TEIs with their respective designations but discussed the extension or validity of the schools' COE/COD status. Tracing the growth of COEs and CODs must be reviewed to note changes between CMOs as presented in Figure 10, considering the issuance dates and validity periods. For example, five COEs and two CODs were added to the list in CMO No. 33, s. 2010, following the initial set of TEIs for the next period of 2010–2013.

Although each issuance follows a fixed validity of three (3) years for each designation, issuances are not released in intervals. There were no accountable changes from 2013–2015 with the issuance of CMO No. 37, s. 2015 only indicating a further extension on the validity of the former designated TEIs. Shortly after, CMO No. 17, 2016 was posted with a pronounced increase in the list of schools to be recognized as COEs and CODs for the period of 2016–2018, which in the last issuance CMO No. 03, s. 2019, further extended and no longer indicating a validity period. This last CMO issuance does not explicitly discuss whether there are changes to be expected in the new guidelines for granting designations. The extension and promotion/demotion of designated TEIs are subject to sudden changes such as application guidelines, schedules, and approvals by CHED.

Some notes on the changes in COEs and CODs not reflected in the numerical sense include the promotion of some CODs to COEs and the demotion of COEs to CODs. Promotion of CODs to COEs occurs when they reach the minimum required score to be a COE in the next round of application for COEs to which they applied for, while demotion is observed when former COEs are graded lower than the desired COE score. Appendix B consists of the complete list of TEIs by designation, with some schools tagged according to their designations, promotions, and demotions by issuance of CMOs. Four COEs were moved to CODs and five CODs were promoted into COEs, between the CMOs from the years 2007 to 2019.

Another difference is the depth and breadth of evaluation criteria. This can be observed from the evaluation processes in the Philippine framework that rely heavily on data provided by TEIs, which may lack the depth and breadth seen in international standards. While criteria like curriculum design and faculty qualifications are important, they may not fully capture factors contributing to excellence, such as innovation in pedagogy, research contributions, and impact on student learning outcomes, which are emphasized in international frameworks.

4.7. COEs serve as model schools in their region for teacher education

On the benefits of being a COE and having a COE in a particular region, COEs are expected to set best standards and practices for pedagogy, curriculum design, instructional methods, and assessment techniques. Hence, they contribute to the overall improvement of teacher education programs. As leaders in teacher education, they are mandated to serve as role models and leaders in teacher education programs. This involves showing excellence in teaching, research, and community engagement, and providing mentorship and guidance to other institutions (Section 6, RA 11713).

In terms of research and development (R&D), COEs must sustain and enhance their research capabilities (e.g., in teacher education). This includes conducting basic and applied research activities to address emerging education trends and developments and contributing to pedagogical scholarship. Finally, they are expected to collaborate with other educational institutions, government agencies, and industry partners to promote innovation and excellence in teacher education. This may involve sharing resources, expertise, and best practices, and participating in outreach activities to support educators nationwide' professional development (Section 6, RA 11713).

COEs and CODs in the Philippines adopts structured programs designed to ensure high standards in the teacher education, some of them have laboratory schools where students acquire practical teaching skills and experience. Some of them also claim to foster a culture of excellence, making it a point that they exhibit the qualities and standards set with or without the titles. They also attribute their performance to their institution's values and history, which for them played a significant part in encouraging students to strive for excellence. Faculty development is also prominent, focusing on recruitment and continuously developing highly educated, professionally qualified, and experienced faculty members. Through regular training, workshops, and advanced studies, faculty members remain at the forefront of educational innovations.

COEs in teacher education actively organize a variety of programs and projects to elevate the quality of teacher preparation and professional development. In Luzon, the University of the Philippines (UP) Diliman and DLSU are notable COEs. UP Diliman focuses on training well-rounded educators with a program that integrates interdisciplinary subjects, research, and

community involvement, fostering critical thinking and leadership. Meanwhile, DLSU is known for its intensive research approach emphasizing innovations in teaching practices, faculty development, and student participation in research and community service. The UP College of Education and the Philippine Normal University (PNU) regularly organize workshops which are focused on specific pedagogical methods, curriculum development, and assessment tools. These short-term training sessions have empowered teachers to keep abreast of new instruction strategies.

In the Visayas, the University of San Carlos (USC) and West Visayas State University (WVSU) stand out. USC, being a COE, focuses on honing research skills and enhancing teaching methods through continuous curriculum review and faculty development, and actively partners with communities on educational projects. On the other hand, WVSU, recognized as COE, offers a well-rounded program balancing theory with practical training, including field experience and community-based projects with local schools.

In Mindanao, Mindanao State University-Iligan Institute of Technology (MSU-IIT) and AdDU are known COEs. MSU-IIT emphasizes innovative teaching methods and research, supporting faculty and student research projects, and promoting participation in international academic exchanges. AdDU, as a COD, focuses on holistic education, emphasizing ethics and morality in teaching, supporting faculty development, and engaging in community services.

Greater benefits accrue as COEs can also offer modular certificate programs in educational leadership, inclusive and distance education, and instructional technology, which in-service teachers can complete while continuing their teaching load. These integrate research-based best practices into practical classroom applications. Experienced teacher educators from COEs can also serve as mentors to faculty and researchers in CODs and other TEIs. This can include classroom observations, team-teaching arrangements, and joint lesson planning sessions aimed at enriching their respective pedagogical content knowledge. Part of this collaboration is their leadership towards research projects with partner TEIs, particularly in addressing local challenges such as literacy improvement, and culturally responsive teaching practices. These outreach efforts enhance the practical experience of aspiring teachers, while also uplifting local communities through education at the same time.

Likewise, COEs can help other TEIs prepare for their accreditation with private entities such as the Accrediting Agency of Chartered Colleges and Universities in the Philippines, Inc. (AACCUP) and Philippine Association of Colleges and Universities Commission on Accreditation (PACUCOA) to ensure that they meet or, in some meritorious cases, surpass national and regional standards. This involves sharing best practices in preparing self-survey reports, streamlining program outcomes, and refining assessment methodologies, among others. Beyond providing technical expertise, they can also assist TEIs in designing their own internal quality assurance system to better build a culture of accountability and sustained excellence in the long run.

4.8. Initiatives of COEs are not tied to their seals

Having mandates and responsibilities to fulfill, COEs engage in activities to sustain their titles. However, as reflected on the KIIs, most of the initiatives for quality improvement among COEs are not tied to their seals.

Faculties from PNU, UP College of Education (UP CoE), and UST College of Education (UST CoE) participate in local and international trainings, workshops, conferences for capacity building and knowledge upgrading.

Most COEs have offices within the HEI responsible for research activities, host conferences, research forums, and knowledge exchange sessions, and run their own journals. PNU runs its Research, Planning, and Quality Assurance office alongside the Educational Policy Research and Development Center (EPRDC) and the Research Center for Teacher Quality (RCTQ), in partnership with an Australian University and supported by the Australian government. EPRDC is mandated by RA 9647 (2009) to conduct studies concerning teacher education in the Philippines, including policy research. Meanwhile, RCTQ has been responsible for the development and validation of the Philippine Professional Standards for Teachers (PPST) and its supporting materials and the conduct of the Curriculum Quality Audit (CQA), among others. Besides its own research and publication office, UP CoE is in partnership with UP National Institute for Science and Mathematics Education Development for improving science and math teaching and learning and the UP Integrated School, a laboratory school where faculty and students may conduct their research projects. Other COEs such as UST CoE and the Mariano Marcos State University College of Education (MMSU CoE) conduct research capacitybuilding workshops for their faculty. The DLSU College of Education (DLSU CoE) has its Lasallian Institute for Development and Education Research (LIDER) to pursue multidisciplinary research with the aims of knowledge generation and nation building.

As role models in teacher education that are expected to help agencies and institutes, top-performing COEs have also provided expertise in various capacities. Faculty from TEIs such as PNU, UST, and MMSU have conducted capacity building workshops, hosted seminars, and invited classroom observations for best practices for in-service teachers. COEs may also be requested to assist in projects funded by international aid agencies such as the case of the SU faculty aiding the implementation of the alternative learning system (ALS). COEs have also been invited to assist in activities related to the planned implementation of DepEd's MATATAG curriculum.

While most of the COE respondents are aware of their mandate, fulfillment of responsibilities tied to their seals has not been stringently monitored. Activities such as community extension programs, curriculum development, research, National Service Training Programs (NSTP), and extension of faculty, are among the activities mentioned by COE representatives when asked about what they do to assist other TEIs. Specifically, sectarian COEs attribute most of the activities to their institution's values, and programs are guided by such values and not by the COE mandate. With this, programs conducted by COEs are often not targeted at the underperforming TEIs nor sustained.

Meanwhile, some representatives of COEs were not aware of the mandates and saw the abovementioned activities as part of the curriculum. Some faculty members expressed that COE responsibilities should be promoted, efforts should be targeted, and objectives should be aligned with the mandates as well as with the needs of TEIs within their region.

5. Conclusions and policy recommendations

5.1. Key findings

Our research questions and objectives were addressed following a descriptive mixed methods approach. In this study, we have mapped the locations of COEs and CODs in the Philippines. We have also probed on the benefits that come with being tagged as COE and COD while underscoring actions that COEs and CODs are taking to fulfill the responsibilities tied to their seals. We also touched on the role of COEs/COEs for underperforming TEIs/regions. Table 15 presents our mapping of research questions with key findings, and strategic initiatives.

Table 15. Key findings

| Research Question | Key Finding | Recommendations |
|--|--|--|
| | There are disparities in regional distribution of COEs and CODs | |
| Where are the COEs and CODs in the Philippines? | Enrollment shares are maintained but graduation shares in COEs/CODs declined substantially in recent years; LET performance of COEs and CODs outperform other TEIs | Quality Tertiary Education Act Incentivize enrollment in COEs and CODs; understand and address the reasons for the drop in graduation shares in COEs/CODs. |
| Is the current CHED framework consistent with industry and international definitions of quality teacher education? | CHED framework for COE Selection emphasizes compliance, while international frameworks focus on impact and outcomes | Conduct regular Monitoring and Evaluation through CHED Regional Offices; emphasize indicators of outcomes and impact |
| What are the benefits that come with their seals? | Benefits of COEs and CODs aside from the title are not clear nor motivating | Incentivize the title and review the mandates of COEs/CODs |
| What actions are the COEs and CODs taking to fulfill the responsibilities tied to their seals? | COEs serve as model schools in their region for teacher education | Establish partnerships and mentoring programs between COEs, CODs, and underperforming TEIs with clearly defined roles and responsibilities |
| What is the role of COEs/CODs for Initiatives of COEs are not tied to underperforming their seals TEIs/regions? | | Reinforce fulfillment of COE/COD mandates to assist underperforming TEIs |

Source: Authors' tabulation

We have seen that the distribution of COEs and CODs signifies diversity and disparity in the country's teacher education landscape. While each region strives to uphold excellence in teacher education, disparities in resources, governance, and community needs affect performance. Certain regions are relatively performing well, with others consistently underperforming through years in study.

The distribution of COEs and CODs in the country implies several areas that need attention especially for the CHED and other teacher education governing bodies. We found **disparities** in regional distribution of COEs and CODs, barriers to quality improvement for underrepresented regions, and lack of targeted interventions to improve inclusivity in policies and implementation.

The disparities in the regional distribution of COEs and CODs in teacher education across the Philippines echoed inequalities in access to quality educational resources. Among the main concerns of underperforming schools were scarcity in funding and opportunities for professional development. Luzon, particularly the NCR, stands out housing numerous COEs and CODs, and while regions in Visayas and Mindanao demonstrate varying levels of distribution, it shows fewer COEs, and CODs compared to Luzon. We also found that faculty, students, and aspiring educators in Visayas and Mindanao face more challenges and do not share the same access to educational resources and opportunities as their counterparts in Luzon.

The underrepresentation of regions such as MIMAROPA, SOCCSKSARGEN, and BARMM with fewer or no COEs and CODs indicates a need for assistance in these regions to improve quality. Partnerships between COEs, CODs, and underperforming schools are not firmly established. While COEs and CODs mentioned initiatives for assistance and collaboration to benefit underperforming TEIs, efforts are not sustained and monitored failing to reach development objectives.

Some underperforming schools cited infrastructure concerns as a major limitation for them to achieve improvements needed for accreditation. Particularly, poor connectivity, unpaved school roads, unstable electricity, and lack of library space and resources were recurrent challenges encountered by underperforming schools hindering improvement quality. Respondents cited the need for targeted interventions in regional and institutional levels especially in SOCCSKSARGEN and BARMM, where underperformance in LET is observed.

Additionally, there are gaps in policy and implementation cited by respondents from Visayas and Mindanao. This involves lack of collaboration between government agencies and community stakeholders to contextualize implementation of policies and programs in the regions.

From our findings, COEs' initiatives promote knowledge-sharing and teacher education quality within their region. Despite gaps in the planning, monitoring, and selection processes, COEs have the potential to create far-reaching improvements within their host regions. While we also found that COE initiatives are not tied to their seals, TEI respondents echoed the benefits of said initiatives. It can raise the standard of teaching and research in TEIs where the COEs operate. COEs can also create and sustain an environment conducive towards innovation and critical thinking by attracting top experts and offering advanced research facilities. Altbach and Salmi (2011) noted that an HEI's reputation and capacity for R&D can be strengthened through the establishment of specialized innovation hubs, which can attract grants, funding, and international partnerships. Hattie and Marsh (1996) emphasized that high-quality teaching and cutting-edge research are complementary, promoting overall institutional excellence. From a knowledge transfer perspective (Argote and Ingram 2000), COEs serve as conduits for transmitting both tacit and explicit knowledge between faculty, students, and external stakeholders. As tacit knowledge (i.e., experience-based skills or insights) is shared and refined within the COE, it diffuses outward to the rest of the teaching institution and to the local

community eventually. This is evidenced by the initiatives of COEs reaching out to other TEIs conducting knowledge-sharing activities (Bacus and Tagalog 2023).

It is also vital to note that COEs often prioritize R&D in emerging and interdisciplinary fields that can directly address the needs of the local community. With their specialized focus in their respective fields of designation, COEs are uniquely positioned to promote research and external linkages within their regions. Partnerships can also serve as feedback loops, where both industry and community partners share their respective on-the-ground knowledge which can further refine the teaching and research focus of COEs, especially in far-flung regions of the country. In return, they can transfer academic expertise to the community by training smaller TEIs and modelling best practices. This two-way knowledge flow shows the dynamic nature of the knowledge transfer process, where both implicit and explicit knowledge are exchanged.

5.2. Policy recommendations

5.2.1. Incentivize the title and review the mandates of COEs/CODs.

As echoed by respondents from COEs, the title should be designed to motivate more TEIs to apply. One COE representative mentioned that BLEPT can be optional for COEs given a stringent process, which will entirely change the landscape of teacher education. The process of being a COE is already rigid, that incentivizing it further to be exempt from statutory requirements may help elevate quality. The application process should also be streamlined to encourage more TEIs to apply. If most TEIs apply for selection, this contributes to quality assurance and ensures they are aligned towards the same standards. Lessons can be learned from international models, providing incentives for teachers from COEs, scholarships for students, and specific programs to further promote quality of learning.

5.2.2. Reinforce fulfillment of COE mandates to assist underperforming TEIs.

While initiatives are made by COEs to assist underperforming schools, efforts are not targeted and sustained. COEs can assist underperforming TEIs through curriculum development programs, professional development for faculty, student training, resource sharing, community engagement, but these initiatives for most of them are tied to school values and service programs rather than the COE mandate. According to the receiving end of underperforming TEIs, while these efforts are helpful, these do not necessarily address where they are deficient in accreditation. The COEs and CODs in teacher education in the Philippines play a crucial role in supporting low-performing TEIs to improve their quality and outcomes. As leaders in their region, they should serve as mentors and capacity builders for low-performing teacher education institutes, providing guidance, support, and expertise to improve their quality and outcomes. Among the key areas they can play major roles are capacity building and mentorship, quality assurance and accreditation, and research and innovation.

5.2.3. Establish mentoring programs between COEs, CODs, and underperforming TEIs.

Partnerships and mentorships must be formalized, assigning COEs to mentor CODs guiding them to achieve the COE title. COEs and CODs must also work together to reach out to other TEIs in their region, with regularly scheduled knowledge sharing and capacity building activities. Evaluation reports from CHED or accreditation agencies reflecting areas for improvement can be discussed by underperforming TEIs together with COEs so that

interventions to be designed will be specifically addressing the deficiencies. This can be sustained until the next accreditation round and licensure performance reflect improvements.

5.2.4. Invoke the provision of RA 10931.

Though the state provides access to tertiary education through this law, access should lead to quality programs, including those offered by teacher education institutions. Hence, the funds provided by the state would be well-spent if used to support teacher education programs that have the seal of quality through the issuance of the Certificate of Program Compliance (COPC). The factors contributing to the decline in enrollment and graduation rates of TEIs may be explored further, and assistance and incentives must be provided to promote teacher education uptake. There are underperforming TEIs who cite students taking education courses as it is accessible and affordable. This needs to be addressed because if the aim is to attract the best teachers, the incentives should be aligned.

5.2.5. Incentivize enrollment in teacher education in COEs and CODs.

Aspiring teachers should be encouraged to enroll in COEs and CODs. Barriers to enrollment should be addressed by incentivizing through scholarships and stipends. Relocation allowances can also be provided to students from far-flung areas who wish to become teachers. Enrollment rates show fluctuating trends, with more enrollees in CODs than COEs. Incentives must be provided to encourage a higher uptake in COEs.

5.2.6. Reinforce gradual closures of underperforming TEPs.

Monitoring of TEI performance must be reinforced, to give proper incentives to performing schools and due assistance to underperforming schools. A close follow-up with underperforming schools must be implemented, to guide them through prescribed improvements. CHED may act upon non-performing teacher education institutions by ordering gradual closures or phasing out teacher education programs that prove to be consistently underperforming in the last 3 to 5 years based on the results from PRC.

5.2.7. Conduct regular monitoring and evaluation through CHED Regional Offices.

Reinforcement of laws should be firm to uphold standards of quality. Thus, regional offices of CHED should conduct regular monitoring and evaluation to ensure that all performing teacher education institutions stay performing by seeing to it that academic institutions have set a more straightforward path of continuous quality improvement (CQI) framework.

5.2.8. Revisit the Diploma for Professional Education (DPE) and CPE Programs.

DPE/CPE programs can be a potential pitfall in achieving quality education, considering the minimal units required for those coming from non-teacher education programs who wish to shift their careers toward teaching. Safeguarding the quality of teacher education should not be limited to those within the teacher education program but also to those taking alternative pathways to becoming a teacher.

5.2.9. Publicize TEI performance list to inform enrollees' choice.

There is available data on the performance of TEIs on licensure exams. Aside from the monitoring mechanisms in place, it may help to publicize the performance of schools to inform

students and parents aiming to redirect them to CODs and COEs. In this report, 12-year performance of TEIs were considered in sample selection, the same data can be used to inform the public of the performance of TEIs.

5.2.10. Understand and address the reasons for the drop in graduation shares in COEs/CODs.

Even if graduates in TEIs have declined overall in recent years, there appears to be a sharper decline in the proportion of graduates in COEs/CODs. The reason behind this decline needs to be understood and addressed to arrest the decline in the production of better performing education graduates.

5.2.11. Areas for future policy research

For further studies on the role of COEs and CODs, case studies may be conducted documenting best practices and initiatives with measurable results. For example, activities between COEs and non-designated TEIs may be observed, exploring perspectives of the TEI on the role of the COE in their institution's quality improvement. Performance indicators prior, during, and after initiatives and interventions may be used as basis for monitoring efficiency in fulfilling COE mandates. Non-designated TEIs may also be surveyed on how they believe COEs and CODs can assist them in improving their performance.

6. References

- Afriadi, B., B. Tola, and D. Triana. 2023. Evaluation of the implementation of teacher professional education in Indonesia. *International Education Trend Issues* 1(1):1–9.
- Altbach, P.G. and J. Salmi (eds.). 2011. *The road to academic excellence: The making of world-class research universities.* The World Bank.
- Alugar, R.B. and E.C. Itaas. 2021. Exploring the implementation of curriculum quality audit in a Philippine state university. *International Journal of Curriculum and Instruction* 13(2):1620–1639.
- Aminbeidokhti, A. and L. Jamshidi, and S.A. Mohammadi Hoseini. 2014. The effect of the total quality management on organizational innovation in higher education mediated by organizational learning. *Studies in Higher Education* 41:1–14.
- Argote, L. and P. Ingram. 2000. Knowledge transfer: A basis for competitive advantage in firms. *Organizational Behavior and Human Decision Processes* 82(1):150–169.
- Armsby, P. 2011. The impact of the Centres for Excellence in Teaching and Learning on the development of work-related learning in the UK. *Higher Education, Skills and Work-Based Learning* 1(3).
- Armstrong, L.A. and J.D. Campos. 2002. Centers of excellence for teacher training: A summit of the Americas initiative. https://pdf.usaid.gov/pdf_docs/Pnacx198.pdf (accessed on December 3, 2024).
- Ateneo de Davao University (AdDU). 2023. School of Education. https://www.addu.edu.ph/undergraduate-programs/ (accessed on March 7, 2024).
- Ateneo de Manila University (ADMU). 2023. Gokongwei Brothers School of Education and Learning Design (GBSEALD). https://www.ateneo.edu/gbseald/academics (accessed on March 7, 2024).
- Bacus, R.C. R.M.P. Tagalog. 2023. Articulation and implementation of professional standards for teachers in teacher education institutions. *Journal of Research, Policy & Practice of Teachers and Teacher Education* 13(2):111–121.

- Baylan, S. 2018. Trend of performance in board licensure examination for professional teachers in selected Philippine teacher education institutions: Policy recommendation. *International Journal for Innovative Research in Multidisciplinary Field* 4(10):334–340.
- Baylan, S. 2019. A Critical Examination of the Institutional Vision in Philippine Teacher Education Institutions. ISSN 2455-0620, May 2019. *International Journal for Innovative Research in Multidisciplinary Field* 5(5).
- Bayudan-Dacuycuy, C. G., A. C. Orbeta Jr., and M. K. P. Ortiz. 2023. *The quest for quality and equity in the Philippine higher education: Where to from here?* (Policy Notes No. 2023-2). Quezon City: Philippine Institute for Development Studies. https://edcom2.gov.ph/media/2023/06/Pids-Policy-Note-2023-12-Higher-Education.pdf
- Biggs, J. 2001. The reflective institution: Assuring and enhancing the quality of teaching and learning. Higher Education 41(3):221–238.
- Borlaug, S.B. 2016. Moral hazard and adverse selection in research funding: Centers of Excellence in Norway and Sweden. Science and Public Policy 43(3):352–62.
- CHED. 2014. Handbook on Typology, Outcomes-based Education, and Institutional Sustainability Assessment. Quezon City, Philippines: Commission on Higher Education.
- CHED Memorandum Order No. 46 Series of 2012. Policy-Standard to Enhance Quality Assurance (QA) in Philippine Higher Education Through an Outcomes-Based and Typology QA. Quezon City, Philippines: Commission on Higher Education.
- ———. 2017. Memorandum Order No. 74 Series of 2017. Policies, Standards, and Guidelines for Bachelor of Elementary Education. Quezon City, Philippines: Commission on Higher Education.
- ———. 2017. Memorandum Order No. 75 Series of 2017. Policies, Standards, and Guidelines for Bachelor of Secondary Education. Quezon City, Philippines: Commission on Higher Education.
- ———. 2022. Memorandum Order No. 17 Series of 2022. Policy on Quality and Quality Assurance for Philippine Higher Education Institutions. Quezon City, Philippines: Commission on Higher Education.
- CHED-OIQAG. 2024. Proposed amendment to section 25 of CMOs no. 74 80 and 82 series of 2017. CHED National Directorate Meeting [presentation]. Quezon City, Philippines: Commission on Higher Education-Office of Institutional Quality Assurance and Governance.
- Chesterfield, R. and A. Abreu-Combs. 2011. Centers for Excellence in Teacher Training: A Two-Year Impact Study (2008-2009). U.S. Agency for International Development. https://pdf.usaid.gov/pdf_docs/Pdacs248.pdf (accessed on April 16, 2024)
- Conchada, M.I. and M.M. Tiongco. 2015. A review of the accreditation system for Philippine higher education institutions. PIDS Discussion Paper No. 2015-30. Makati City, Philippines: Philippine Institute for Development Studies.
- Darling-Hammond, L. 2000. Teacher quality and student achievement: A review of state policy evidence. *Education Policy Analysis Archives* 8(1).
- ———. 2006. Powerful teacher education: Lessons from exemplary programs. Jossey-Bass.
- De La Salle University (DLSU). 2023. Lasallian Institute for Development and Educational Research. https://www.dlsu.edu.ph/research/research-centers/lider/ (accessed on March 7, 2024).
- DepEd Order No. 42. 2017. National Adoption and Implementation of the Philippines Professional Standards for Teachers. Pasig City, Philippines: Department of Education.

- Dirgantoro, K.P.S., R.H. Soesanto, and Y.Yanti. 2023. A preliminary study on the formulation of indicators and definitions of mathematical bitterness related to teacher treatment. *Jurnal Elemen* 9(1):84–97.
- Drucker, P.F. 1999. Knowledge-worker productivity: The biggest challenge. *Calif. Manag. Rev.* 41:79–94. doi: 10.2307/41165987.
- Ell, F., M. Haigh, M. Cochran-Smith, L. Grudnoff, L. Ludlow, and M.F. Hill. 2017. Mapping a complex system: What influences teacher learning during initial teacher education? *Asia-Pacific Journal of Teacher Education* 45(4):327–345.
- Fontejon-Bonior, G.A. and P. de la Rama. 2018. Determinants of LET performance of BEEd, BSEd, and CPE graduates of a center of excellence in teacher education. *The Educator* 7:18–39.
- Generalao, I.N., G. Ducanes, K.M. Yee, and C.C. David. 2022. Teacher education in the Philippines: Are we meeting the demand for quality? *Philippine Journal for Public Policy: Interdisciplinary Development Perspectives* 2022:1–65.
- Gosling, D. and A. Hannan. 2007. Responses to a policy initiative: The case of Centres for Excellence in Teaching and Learning. *Studies in Higher Education* 32(5):633–646.
- Griffith, S.A. The accomplishments of the caribbean center of excellence for teacher training project. Literacy and Numeracy in the Caribbean. In *Literacy and Numeracy in the Caribbean: Report of the Caribbean Subregional Meeting*. Washington D.C.: Inter-American Development Bank [IADB].
- Grossman, P., K. Hammerness, and M. McDonald. 2009. Redefining teaching, re-imagining teacher education. *Teachers and Teaching* 15(2):273–289.
- Hammerness, K. and K. Klette. 2015. Indicators of quality in teacher education: Looking at features of teacher education from an international perspective. In Promoting and sustaining a quality teacher workforce. Emerald Group Publishing Limited.
- Harvey, L. and D. Green. 1993. Defining quality. Assessment & Evaluation in Higher Education 18(1):9–34.
- Hatry, H. 2006. Performance Measurement: Getting Results. Urban Institute. Washington USA.
- Hattie, J. and H.W. Marsh. 1996. The relationship between research and teaching: A meta-analysis. *Review of Educational Research* 66(4):507–542.
- Hellström, T. 2011. Homing in on excellence: Dimensions of appraisal in center of excellence program evaluations. *Evaluation* 17(2):117–31.
- ——. 2012. Epistemic capacity in research environments: A framework for process evaluation. *Prometheus* 30(4):395–409.
- Higher Education Funding Council for England [HEFCE]. 2005. Centres for Excellence in Teaching and Learning. https://dera.ioe.ac.uk/id/eprint/11487/1/05_17.pdf (accessed December 3, 2024).
- Hoque, A.K.M., Md.S. Hossain, and M. Zaman. 2017. Total Quality Management in Educational Institutions. 10.1007/978-981-10-3290-5_11.
- Hunt, B., M. Tvaruzkova, R. Levi, and F. Millan. 2011. Centers for excellence in teacher training (CETT) program: Paper four: Paradigm shift final report. USAID. https://pdf.usaid.gov/pdf_docs/pnady575.pdf (accessed December 4, 2024).
- Jasim, M.M. 2021, December 03. Universities to adopt outcome-based education system. *The Business Standard*. https://www.tbsnews.net/bangladesh/education/universities-adopt-outcome-based-education-system-215209 (accessed December 03, 2024).
- Kalaw, M.T.B. 2017. Trend of De La Salle Lipa education graduates' performance in the licensure examination for teachers. *International Journal of Evaluation and Research in Education* 6(2):138–149.

- Ladia, M.A.P., R. Facun, R. Garcia, and N. Nool. 2012. Centers of excellence and centers of development for teacher education: their contribution to the elementary teacher force. In 2012 International Conference on Education and Management Innovation 4:2016.
- Ladia, M.A.P. and N.R. Nool. 2012. Analysis of the performance in the licensure examination for teachers of state universities and colleges in region III. Paper presented at the *Inhouse Review of Completed Researches*, Tarlac State University, Tarlac City.
- Langfeldt, L., M. Benner, G. Sivertsen, E.H. Kristiansen, D.W. Aksnes, S.B. Borlaug, H.F. Hansen, E. Kallerud, and A. Pelkonen. 2015. Excellence and growth dynamics: A comparative study of the Matthew effect. *Science and Public Policy* 42(5):661–75.
- Larsen, K. 2020. Managing the complexity of centres of excellence: Accommodating diversity in institutional logics. *Tertiary Education and Management* 26:295–310.
- Little, B., and L. William. 2011. Conceptions of excellence in teaching and learning and implications for future policy and practice. In *Questioning Excellence in Higher Education*, 117–137. Brill.
- Loh, J. and G. Hu. 2019. Teacher education in Singapore. In *Oxford Research Encyclopedia of Education*. Oxford University Press.
- Low, E.L., C. Hui, P.G. Taylor, and P.T. Ng. 2012. Towards evidence-based initial teacher education in Singapore: A review of current literature. *Australian Journal of Teacher Education (Online)* 37(5):65–77.
- Maryatun, M. and S. Supamo. 2023. Evaluation of program implementation teacher professional education in online offices for elementary school teachers. *Jurnal Studi Guru dan Pembelajaran* 6(3):293–303.
- Mindanao State University-Iligan Institute of Technology (MSU-IIT). 2023. College of Teacher Education. https://www.msuiit.edu.ph/academics/colleges/ced/programs/index.php (accessed on March 7, 2024).
- Montenegro, L. 2011. Realities and perspectives arising from professional development to improve the teaching of reading and writing: The CETT project in the Dominican Republic. In *International Handbook of Leadership for Learning*, 817–828. Dordrecht: Springer Netherlands.
- Morley, L. 2001. Producing new workers: quality, equality and employability in higher education. Qual. High. Educ. 7, 131–138. doi: 10.1080/13538320120060024
- Ng, P.T. 2017. Learning from Singapore: The power of paradox. New York, NY: Routledge.

 ————. 2008. A comparative study of Singapore's school excellence model with Hong Kong's school-based management. *International Journal of Educational Management* 22(6):488–505.
- ———. 2003. The Singapore school and the school excellence model. *Educational Research for Policy and Practice* 2:27–39.
- OECD. 2005. Teachers matter: Attracting, developing and retaining effective teachers. Education and Training Policy. Paris, France: Organisation for Economic Co-operation and Development Publishing.
- ———. 2013. Synergies for better learning: An international perspective on evaluation and assessment. OECD Reviews of Evaluation and Assessment in Education, OECD Publishing.
- ——. 2015. Education policy outlook 2015: Making reforms happen. OECD Publishing. https://doi.org/10.1787/9789264225442-en (accessed on April 16, 2024).
- Orbeta, A.C., M.B. Lagarto, M.K.P. Ortiz, D.A.P. Ortiz, and M.V. Potestad. 2018. Senior high school and the labor market: Perspectives of grade 12 students and human resource officers. PIDS Discussion Paper Series No. 2018-49. Quezon City, Philippines: Philippines Institute for Development Studies.

- Paqueo, V., A. Orbeta, and J. Albert. 2012. A critical look at the education sector: achievements, challenges and reform ideas" Chapter 3 in 2011 Economic Policy Monitor: Education for Development.
- Philippine Business for Education [PBEd]. 2023. Are we properly preparing our future teachers? An analysis of the BLEPT performance of Teacher Education Institutions in the Philippines: 2010-2022. Makati City, Philippines: PBEd.
- Peng, M.Y., Y. Feng, X. Zhao, and W. Chong. 2021. Use of knowledge transfer theory to improve learning outcomes of cognitive and non-cognitive skills of university students: Evidence from Taiwan. *Frontiers in Psychology* 12:583722. https://doi.org/10.3389/fpsyg.2021.583722.
- Philippine Normal University (PNU). 2023. The National Center for Teacher Education. https://www.pnu.edu.ph/ (accessed on March 7, 2024).
- Relon, L.P. 2017. The college of teacher education as center of development: Its experiences and challenges. *UNP Research Journal* Vol. XXVI(ISSN 0119-3058).
- Republic Act 7722. 1994. Higher Education Act of 1994. Metro Manila, Philippines: Congress of the Philippines.
- Republic Act 11713. 2022. An act further strengthening teacher education in the Philippines by enhancing the teacher education council, establishing a scholarship program for students in the teacher education program, institutionalizing the national educators academy of the Philippines, and appropriating funds therefor, amending for the purpose republic act no. 7784, entitled "an act to strengthen teacher education in the Philippines by establishing centers of excellence, creating a teacher education council for the purpose, appropriating funds therefor, and for other purposes". Metro Manila, Philippines: Congress of the Philippines.
- Roberto, J. and D.V. Madrigal. 2019. Teacher Quality in the Light of the Philippine Professional Standards for Teachers. *Philippine Social Science Journal* 1(67). 10.52006/main.v1i1.13.
- Rokhman, F., F. Ahmadi, and R.D. Kusumaningtyas. 2017. The strategic role of teacher training institutes (LPTK) in building professional teachers. In *9th International Conference for Science Educators and Teachers (ICSET 2017)*:23–32. Atlantis Press.
- Ruiz, A.J. and C. Junio-Sabio. 2012. Quality assurance in higher education in the Philippines. *Asian Journal of Distance Education* 10(2):63–70.
- Saunders, M., J. Machell, S. Williams, D. Allaway, A. Spencer, P. Ashwin, and A. McKee. 2008. 2005–2010 centres of excellence in teaching and learning programs: Formative evaluation report to HEFCE. Edited by HEFCE. http://www.hefce.ac.uk/media/hefce/content/pubs/indirreports/2008/missing/2005-2010%20CETL%20programme%20formative%20evaluation.pdf (accessed December 3, 2024).
- Sahney, S., D.K. Banwet, and S. Karunes. 2004. Conceptualizing total quality management in higher education. *The TQM Magazine* 16(2):145-159. https://doi.org/10.1108/09544780410523044.
- Schiller, D. and P. Brimble. 2009. Capacity Building for university-industry linkages in developing countries: The case of Thai Higher Education Development Project. *Science, Technology & Society* 14(1):59–92.
- Schmitt, C.E., O. Lauber, A. Gomez, Y.M. Tabuena, and A. Tabuena. 2023. The impact of the excellence in teacher education act on the cultivation of a research-oriented culture: A brief review report of the republic act no. 7784 in the Philippines. *Academic and Practical Research, International Journal* 2:95–102. 10.5281/zenodo.8036603.

- Shin, M., J. Tulivuori, and L.M. Kreibich. 2022. Ways to support a strong teaching workforce in education and training. *Development Asia*. https://development.asia/summary/ways-support-strong-teaching-workforce-education-and-training (accessed December 3, 2024).
- Skelton, A. and R. Navarro. 2011. Centers for excellence in teacher training (CETT) program: Paper one: Regional nature final report. USAID. https://uwispace.sta.uwi.edu/server/api/core/bitstreams/1657d0d5-80ae-48b4-a4e3-60f3188e8ed1/content.
- University of San Carlos (USC). 2023. School of Education. https://usc.edu.ph/academics/schools/school-of-education (accessed on March 7, 2024).
- University of the Philippines Diliman (UPD). 2023. College of Education. https://educ.upd.edu.ph/ (accessed on March 7, 2024).
- Weis, L. 2021. Theoretical approaches to quality management in education. School of Business, Ljubljana, Slovenia
- West Visayas State University (WVSU). 2023. College of Education. https://wvsu.edu.ph/academics/units/college-of-education/ (accessed on March 7, 2024).
- Zardini, P.J. and I.E. Zardini. 2011. Centers for excellence in teacher training (CETT) program: Paper three: Sustainability final report. Washington D.C.: USAID. https://uwispace.sta.uwi.edu/server/api/core/bitstreams/b8993673-0ef0-4e22-b3ad-7e8e11f0aea7/content#page=9 (accessed on December 4, 2024).

Appendices

Appendix A. The growth of COEs and CODs based on all the CHED issuances on guidelines and identified COEs and CODs for Teacher Education Programs, by date of issuance

| Date of | Issuance | Description | | f HEIs ated as | Period of |
|-----------------|------------------------|---|------|-------------------|--|
| Issuance | No. | • | COEs | CODs | - Validity |
| Apr 30, 2007 | CMO No. 26, s. 2007 | Criteria and Implementing Guidelines for the Identification Support and Development of Centers of Excellence (COEs) and Centers of Development (CODs) for Teacher Education Programs | n/a | n/a | n/a |
| Jul 1, 2008 | CMO No. 31, s. 2008 | Centers of Excellence (COEs) and Centers of Development (CODs) for Teacher Education | 14 | 5 | 2008-2011 |
| Oct 14, 2010 | CMO No. 33, s. 2010 | Centers of Excellence (COEs) and Centers of Development (CODs) for Teacher Education | 19 | 7 | 2010-2013 |
| Dec 23, 2015 | CMO no. 37, s. 2015 | Extension of the Validity Period of Designated Centers of Excellence (COEs) and Centers of Development (CODs) for Teacher Education and Selected Engineering Programs from January 1, 2016, to March 31, 2016 | 19 | 7 | January 1, 2016- March 31, 2016 |
| Mar 31, 2016 | CMO No. 17, s. 2016 | Designated Centers of Excellence (COEs) and Centers of Development (CODs) for Teacher Education Program | 36 | 38 | April 1, 2016- December 31, 2018 |
| Apr 15, 2019 | CMO no. 03, s. 2019 | Extension of the Validity Period of Designated Centers of Excellence (COEs) and Centers of Development (CODs) for Various Disciplines | 36 | 38 | not specified |

Source: CHED Issuances

Appendix B. List of COEs and CODs demoted/promoted, by issuance

| Category | List of TEIs (Year of Initial Promotion) | Issuance |
|-----------------|--|-------------|
| : From None to | Adamson University | CMO No. |
| COD (29) | Batangas State University | 17, s. 2016 |
| | Bukidnon State University | |
| | Catanduanes State University | |
| | Central Mindanao University | |
| | Central Philippine University | |
| | Don Honorio Ventura Technological State University | |
| | Don Mariano Marcos Memorial State University-North | |
| | Don Mariano Marcos Memorial State University-South | |
| | Holy Name University | |
| | Iloilo Science and Technology University | |
| | Isabela State University-Cabagan | |
| | Laguna State Polytechnic University-San Pablo City | |
| | Misamis University | |
| | Negros Oriental State University | |
| | Siquijor State College | |
| | Southern Leyte State University-Tomas Oppus | |
| | Southern Luzon State University | |
| | Tarlac State University | |
| | University of Asia and the Pacific | |
| | University of Baguio | |
| | University of Mindanao-Tagum | |
| | University of Northern Philippines | |
| | University of Perpetual Help System-Biñan | |
| | University of San Agustin | |
| | University of St. La Salle | |
| | University of the Immaculate Conception | |
| | Western Mindanao State University | |
| | Zamboanga City State Polytechnic College | |
| I: From None to | Adventist University of the Philippines | CMO No. |
| OE (20) | Angeles University Foundation | 17, s. 2016 |
| | Ateneo De Zamboanga University | |
| | Benguet State University | |
| | Central Luzon State University | |
| | De La Salle University – Dasmariñas | |
| | Far Eastern University | |
| | Mindanao State University – Iligan Institute of | |
| | Technology | |
| | Miriam College | |
| | Palawan State University | |
| | Philippine Normal University – North Luzon Campus | |
| | Philippine Normal University – Mindanao Campus | |
| | Saint Louis College | |
| | Saint Louis University | |

| | Tarlac College of Agriculture | |
|------------------|--|-------------|
| | University of Batangas | |
| | University of Mindanao | |
| | University of San Jose – Recoletos | |
| | University of Southeastern Philippines | |
| | University of the Philippines – Diliman | |
| III: From COD to | Cebu Normal University (2008) | CMO No. |
| COE (4) | Pangasinan State University (2011) | 17, s. 2016 |
| | St. Paul University – Philippines (2008) | |
| | Xavier University (2008) | |
| IV: From COE to | Capitol University (2011) | CMO No. |
| COD (6) | Father Saturnino Urios University (2011) | 17, s. 2016 |
| | Leyte Normal University (2008) | |
| | Notre Dame of Marbel University (2008) | |
| | Unibersidad de Santa Isabel (2011) | |
| | University of Luzon (2011) | |
| V: Retained COD | Ateneo de Davao University (2008) | CMO No. |
| (3) | Central Bicol State University of Agriculture (2011) | 17, s. 2016 |
| | Holy Angel University (2008) | |
| VI: Retained COE | Ateneo de Naga University (2008) | CMO No. |
| (11) | Bicol University (2008) | 17, s. 2016 |
| | Centro Escolar University (2008) | |
| | De La Salle University (2008) | |
| | Mariano Marcos State University (2008) | |
| | Philippine Normal University (2008) | |
| | Silliman University (2008) | |
| | University of San Carlos (2008) | |
| | University of Santo Tomas (2008) | |
| | University of the Cordilleras (2011) | |
| | West Visayas State University (2008) | |
| | , , , , | |

Source: CHED Issuances

Appendix C. Distribution of TEIs in the Baccalaureate or Pre-Service Teacher Education Programs Under the Education and Science Training Discipline Group, SY 2020-21

| PSCED (Baccalaureate Level) | Number of TEIs | Share in Discipline Group (%) | |
|--|----------------|-------------------------------------|--|
| Education and Science Training | 4,468 | 66.99 | |
| Agricultural Education | 19 | 0.28 | |
| Agricultural Extension Education | 1 | 0.01 | |
| Applied Deaf Studies | 2 | 0.03 | |
| Arabic Education (teaching Arabic) | 2 | 0.03 | |
| Art Education | 58 | 0.87 | |
| Biology Education | 2 | 0.03 | |
| Business Education | 5 | 0.07 | |
| Chemistry Education | 1 | 0.01 | |
| Childhood Education | 3 | 0.04 | |
| Christian Education | 18 | 0.27 | |
| Commercial Education | 2 | 0.03 | |
| Communication Arts (Pilipino, English) | 28 | 0.42 | |
| Computer Education (teaching Computer Science) | 7 | 0.10 | |
| Curriculum and Instruction | 1 | 0.01 | |
| Development Education | 2 | 0.03 | |
| Early Childhood Education | 261 | 3.91 | |
| Education | 16 | 0.24 | |
| Educational Psychology | 2 | 0.03 | |
| Educational Technology | 101 | 1.51 | |
| Elementary Education | 1,390 | 20.84 | |
| English Education | 9 | 0.13 | |
| Extension Education | 2 | 0.03 | |
| Filipino Education | 9 | 0.13 | |
| Fisheries Education | 4 | 0.06 | |
| General Science Education | 1 | 0.01 | |
| Guidance and Counselling | 12 | 0.18 | |
| Health Education | 1 | 0.01 | |
| Home Economics Education | 3 | 0.04 | |
| Industrial Education | 45 | 0.67 | |
| Language Education/Language Teaching | 5 | 0.07 | |
| Mathematics Teaching | 11 | 0.16 | |
| Measurement and Evaluation | | | |
| Music Education | 8 | 0.12 | |
| Non-Formal Education | | | |
| Nursing Education | 1 | 0.01 | |
| Nutrition and Dietetics Teaching | 1 | 0.01 | |
| Other Education Science and Teacher Training | 202 | 3.03 | |
| Physical Education | 308 | 4.62 | |

| Physical Science Education | 1 | 0.01 |
|---|-------|-------|
| Physics Teaching | 1 | 0.01 |
| Reading Education | | |
| Religious Education (Character/Value Education) | 37 | 0.55 |
| Research and Evaluation | | |
| School Principalship | | |
| Science Education (teaching Science) | 5 | 0.07 |
| Secondary Education with no specialization | 1,387 | 20.79 |
| Social Science Education | 4 | 0.06 |
| Social Studies Education | 3 | 0.04 |
| Special Education | 127 | 1.90 |
| Sports Science (Sports Officiating/Coaching) | 35 | 0.52 |
| Teaching | 6 | 0.09 |
| Teaching Behavioral Science | | |
| Teaching Handicapped Children | | |
| Technician Teacher Education | 311 | 4.66 |
| Vocational/Technical Education | 8 | 0.12 |
| | | |

Source: Author's computation of the CHED HEI Enrollees and Graduates

Appendix D. Average LET passing rates of COEs from 2016 to 2018, by program level

| COE - Teacher Education Institutions (TEIs) | Elementary | Secondary | Combined |
|---|------------|-----------|----------|
| | | | |
| Adventist University of the Philippines | 86.25 | 80.38 | 83.31 |
| Angeles University Foundation | 85.56 | 87.53 | 86.54 |
| Ateneo de Naga University | 86.92 | 85.41 | 86.16 |
| Ateneo de Zamboanga University | 76.83 | 81.48 | 79.15 |
| Benguet State University | 69.13 | 78.47 | 73.80 |
| Bicol University | 82.99 | 57.49 | 70.24 |
| Cebu Normal University | 73.79 | 87.19 | 80.49 |
| Central Luzon State University | 64.30 | 73.50 | 68.90 |
| Centro Escolar University | 81.18 | 68.67 | 74.93 |
| De La Salle University | 97.98 | 97.34 | 97.66 |
| De La Salle University-Dasmariñas | 63.90 | 75.48 | 69.69 |
| Far Eastern University | 76.31 | 75.63 | 75.97 |
| Mariano Marcos State University Mindanao State University-Iligan Institute of | 87.16 | 90.40 | 88.78 |
| Technology | 95.77 | 81.61 | 88.69 |
| Miriam College | 88.13 | 94.44 | 91.29 |
| Palawan State University | 82.34 | 67.28 | 74.81 |
| Pangasinan State University - Bayambang Campus | 71.74 | 76.25 | 73.99 |
| Philippine Normal University | 92.90 | 94.12 | 93.51 |
| Philippine Normal University Mindanao | 67.99 | 90.11 | 79.05 |
| Philippine Normal University-North Luzon Campus | 73.28 | 96.14 | 84.71 |
| Saint Louis College | 65.81 | 86.45 | 76.13 |
| Saint Louis University | 86.67 | 89.82 | 88.24 |
| Saint Mary's University | 84.57 | 84.12 | 84.35 |
| Silliman University | 77.11 | 82.63 | 79.87 |
| St. Paul University Philippines | 59.09 | 70.73 | 64.91 |
| Tarlac College of Agriculture | - | 70.14 | 70.14 |
| University of Batangas | 63.49 | 69.10 | 66.29 |
| University of Mindanao | 84.56 | 78.87 | 81.72 |
| University of San Carlos | 71.43 | 85.88 | 78.65 |
| University of San Jose-Recoletos | 52.69 | 65.52 | 59.10 |
| University of Santo Tomas | 94.31 | 93.53 | 93.92 |
| University of Southeastern Philippines | 82.29 | 77.32 | 79.81 |
| University of the Cordilleras | 72.47 | 76.54 | 74.51 |
| University of the Philippines Diliman | 98.02 | 97.99 | 98.00 |
| West Visayas State University | 89.20 | 86.17 | 87.69 |

| Renewed but below the passing rate | 13 | 8 | 12 |
|------------------------------------|-------|-------|-------|
| Minimum 75% passing rate | 22 | 28 | 24 |
| Mean | 79.16 | 81.77 | 80.34 |
| Xavier University | 84.42 | 90.10 | 87.26 |

Source: Authors' computation of the PRC LET Results

Appendix E. Average LET passing rates of CODs from 2016 to 2018, by program level

| COD - Teacher Education Institutions (TEIs) | Elementary | Secondary | Combined |
|--|------------|-----------|----------|
| | | | |
| Adamson University | 73.81 | 72.44 | 73.13 |
| Ateneo de Davao University | 94.59 | 93.75 | 94.17 |
| Batangas State University | 65.62 | 71.03 | 68.32 |
| Bukidnon State University | 50.85 | 46.94 | 48.89 |
| Capitol University | 42.76 | 60.76 | 51.76 |
| Catanduanes State University | 75.79 | 60.75 | 68.27 |
| Central Bicol State University of Agriculture | 61.93 | 70.19 | 66.06 |
| Central Mindanao University | 67.84 | 74.62 | 71.23 |
| Central Philippine University | 68.22 | 80.45 | 74.34 |
| Don Honorio Ventura Technical State University | 37.81 | 52.19 | 45.00 |
| Don Mariano Marcos Memorial State University - North | 48.08 | 64.59 | 56.34 |
| Don Mariano Marcos Memorial State University - South | 52.33 | 77.12 | 64.73 |
| Father Saturnino Urios University | 78.34 | 78.51 | 78.43 |
| Holy Angel University | 72.51 | 78.70 | 75.61 |
| Holy Name University | 72.75 | 82.03 | 77.39 |
| Iloilo Science and Technology University | 77.18 | 59.01 | 68.10 |
| Isabela State University - Cabagan | 58.38 | 68.26 | 63.32 |
| Laguna State Polytechnic University-San Pablo City | 57.57 | 58.99 | 58.28 |
| Leyte Normal University | 64.57 | 85.31 | 74.94 |
| Misamis University | 77.24 | 73.61 | 75.43 |
| Negros Oriental State University | 61.46 | 64.57 | 63.01 |
| Notre Dame of Marbel University | 88.88 | 82.39 | 85.63 |
| Siquijor State College | 38.76 | 69.43 | 54.10 |
| Southern Leyte State University-Tomas Oppus | 46.71 | 61.72 | 54.22 |
| Southern Luzon State University | 80.41 | 78.84 | 79.63 |

| Renewed but below the passing rate | 18 | 14 | 15 |
|--|--------|--------|--------|
| Minimum 65% passing rate | 20 | 24 | 23 |
| Mean | 65.99 | 69.58 | 69.64 |
| Zamboanga City State Polytechnic College | 19.82 | 17.76 | 18.79 |
| Western Mindanao State University | 50.25 | 49.61 | 49.93 |
| University of St. La Salle | 76.55 | 87.79 | 82.17 |
| University of San Agustin | 63.96 | 75.93 | 69.95 |
| University of Perpetual Help-Biñan | 64.11 | 60.55 | 62.33 |
| University of Northern Philippines | 74.56 | 63.21 | 68.88 |
| University of Mindanao-Tagum | 91.15 | 69.17 | 80.16 |
| University of Luzon | 54.24 | 61.68 | 57.96 |
| University of Immaculate Conception | 67.42 | 68.05 | 67.73 |
| University of Baguio | 82.43 | 82.11 | 82.27 |
| University of Asia and the Pacific | 100.00 | 100.00 | 100.00 |
| Universidad De Santa Isabel | 85.93 | 74.93 | 80.43 |
| Tarlac State University-Lucinda | 62.91 | 66.93 | 64.92 |

Source: Authors' computation of the PRC LET Results

Appendix F. Distribution of faculty by educational attainment, designation, and HEI type, from AY 2015-16 to AY 2016-17

| | AY 2015-16 | | AY 2016-17 | |
|----------------------------|------------|---------|------------|---------|
| | SUC | non-SUC | SUC | non-SUC |
| TOTAL HEI FACULTY | 64,119 | 115,270 | 63,636 | 114,062 |
| Baccalaureate | 29,893 | 51,307 | 28,992 | 50,627 |
| Master's | 24,646 | 49,677 | 24,722 | 48,522 |
| Doctorate | 9,580 | 14,286 | 9,922 | 14,913 |
| COE faculty | 5,148 | 10,898 | 5,085 | 10,726 |
| Baccalaureate | 1,699 | 3,527 | 1,619 | 3,388 |
| Master's | 2,188 | 5,581 | 2,198 | 5,491 |
| Doctorate | 1,261 | 1,790 | 1,268 | 1,847 |
| COD faculty | 5,401 | 5,275 | 5,382 | 5,253 |
| Baccalaureate | 2,356 | 2,244 | 2,256 | 2,317 |
| Master's | 2,248 | 2,381 | 2,237 | 2,254 |
| Doctorate | 797 | 650 | 889 | 682 |
| Non-designated HEI faculty | 53,570 | 99,097 | 53,169 | 98,083 |
| Baccalaureate | 25,838 | 45,536 | 25,117 | 44,922 |
| Master's | 20,210 | 41,715 | 20,287 | 40,777 |
| Doctorate | 7,522 | 11,846 | 7,765 | 12,384 |

Source: Authors' computation of CHED HEI Faculty