



RESEARCH ARTICLE

Self-Assessment of Efficacy and Challenges Encountered by Out-Of-Field Senior High School Teachers in the Philippines

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ABSTRACT

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Education is a fundamental driver of social and economic progress, yet a global learning crisis persists despite continuous efforts to enhance educational quality. One critical issue contributing to this crisis is out-of-field teaching (OFT), which affects both developed and developing countries. This study explores the prevalence of OFT among Senior High School (SHS) teachers in the Northern Mindanao region of the Philippines, covering 41 SHS institutions. The SHS curriculum in the Philippines is part of the K-12 education reform aimed at enhancing the quality of education and improving learning outcomes by adding two additional years of specialized secondary education. Findings reveal that 54.78% of the 648 surveyed SHS teachers are engaged in OFT, highlighting a significant shortage of qualified educators, particularly in the General Academic Strand and the Humanities and Social Sciences Strand. Key challenges faced by these teachers include gaps in subject matter expertise, limited access to teaching resources, and insufficient opportunities for professional development. Addressing these challenges is crucial to improving teacher effectiveness. To cope with the challenges, OFT teachers in Northern Mindanao, Philippines rely on independent study, Learning Action Cell (LAC) sessions, peer-to-peer coaching, and mentor-mentee programs to address content knowledge gaps. They also tackle teaching resource issues by integrating ICT, improving classroom setups, utilizing internet connectivity, and acquiring modern equipment. Notably, despite being assigned to teach outside their fields of specialization, these educators under OFT exhibit a high level of professional self-esteem and competence.

INTRODUCTION

Education plays a critical role in achieving higher socioeconomic status, supporting employment, and reducing poverty by enabling individuals to maximize their potential. However, according to the UNICEF report in 2021, the world faced a learning crisis even before the pandemic, with many students not acquiring necessary skills despite being in school. This raises important questions about the factors affecting the quality of education, among which the role of the teacher is pivotal (World Bank, 2022).

In the Philippines, the government has implemented the K to 12 program, as stipulated in RA 10533, to enhance the quality of basic education and for all learners to have access to relevant education. This reform in the basic education system in the Philippines was implemented in year 2016. Despite this effort, a significant challenge has emerged: the lack of preparation and professional development for teachers (Ednave et al., 2018), leading to a prevalence of out-of-field teaching (OFT), where teachers handle subjects outside their degree specialization.

OFT is a global concern, with implications studied in various countries including the Philippines, Australia, Korea, Norway, the US, and South Africa (Du Plessis et al., 2014). There are a range of factors contributing to the prevalence of OFT. These include a lack of teachers in the system; a lack

of teachers who are qualified to teach specific subjects; unequal distribution of teachers qualified to teach a particular subject in certain geographic areas; and recruitment practices in schools (Ross & Hobbs, 2024). According to Shulman (1988) and Zhuo (2012), OFT instructors often lack adequate subject-matter training, leading to deficiencies in both subject matter mastery and pedagogical content knowledge. This issue adversely affects instruction quality, teacher growth and self-esteem, and student learning outcomes (Hobbs, 2012; Barlow, 2002; Mathews et al., 2006; Pillay et al., 2005). Furthermore, Biebricher (2024) states that OFT in language subjects impacts teacher identities including being subject matter experts and professional educators.

Unfortunately, more teachers will be expected to teach out-of-field on a regular basis and those already working under pressure could result in additional problems. OFT could potentially become a wider crisis for schools and students (Wyatt & Hobbs, 2024). In the Philippines, the shortage of qualified Senior High School (SHS) teachers has led to the reassignment of Junior High School teachers to SHS positions, where they often teach various tracks or strands (Bacus & Alda, 2022). While SHS teachers benefit from capacity-building workshops and pedagogical seminars, there is a gap in SHS-specific training, leaving some educators feeling inadequately prepared (Capulos & Sicat, 2020). This gap is particularly evident in subjects like Practical Research 1 and 2, where teachers often lack relevant practice teaching experience.

The practice of assigning non-education graduates to teach specialized courses in SHS, such as engineers teaching math and science, or CPAs teaching accounting and finance, also highlights a significant challenge regarding their teaching effectiveness (Bantugan & Ocon, 2020; Nuñez, 2021; Capulos & Sicat, 2020). Despite these challenges, OFT teachers demonstrate resilience and resourcefulness. Studies show that they exhibit impressive research competence and self-assurance in their teaching capabilities (Evarado & Abina, 2023; Castro et al., 2023; Caldis, 2022). Workshops, seminars, and Learning Action Cell (LAC) sessions have been found to enhance their competencies and instructional performance (Paderes, 2022; Verbo, ND; Cabral & Millandro, 2019). Moreover, the study of Ma (2024) revealed that teachers who possess open personalities and maintain a positive emotional and mental outlook can handle OFT competently without facing significant professional difficulties.

Moreover, a study by Aðalsteinsson et al., (2024) found that teachers in Iceland who were Icelandic majors were more competent in teaching Icelandic language compared to those whose majors were non-Icelandic such as sports and home studies. It was concluded that to be more competent in teaching Icelandic language, teachers must have at least a basic training in the said language. In a Philippine study by Manaig et al., (2023), findings revealed that there is a significant relationship between organizational commitment, professional self-esteem, and work engagement among faculty members in Universities and Colleges. Further, it was indicated that the most important predictors of work engagement were professional self-esteem, highest educational attainment, and position, which means that the respondents' highest educational attainment and position intensified the predicting capacity of professional self-esteem on work engagement. Accordingly, by placing emphasis on strategies that promote affective commitment, knowledge development, and job satisfaction among faculty members, institutions have the opportunity to increase levels of work engagement.

Meanwhile, the study of Sahay (2020) on multiple intelligence, teacher competency, and self-esteem of secondary school teachers in India suggested that there is a significant positive relationship between multiple intelligence and teacher competency, a significant positive relationship between multiple intelligence and self-esteem, and a significant positive relationship between teacher competency and self-esteem of secondary school teachers. This means that the better working environment of private school teachers promotes greater self-esteem & teacher competency. Also, teachers who are respected for their abilities, their multiple intelligence likely to have an increase in self-esteem further strengthening their competency. In another study, findings revealed that teacher competency does not necessarily influence engagement when teachers incorporate ICT in their teaching, present subject content, follow a logical framework, establish expectations, provide learners with scientific information on the subject matter, and foster critical thinking (Bamusibule et al., 2024).

On the other hand, in the study of Ceylan et al., (2023) on dental students, results indicated that digital literacy substantially supports students' professional competency. Findings also revealed that genuine interest in the field and bolstered self-confidence through digital literacy proves instrumental in students' academic success in dentistry. By incorporating and enhancing digital literacy within the curriculum, universities can drive further progress in the dental field. It is essential for dental institutions to integrate strategies into their educational framework that boost students' confidence and digital skills.

A crucial element for the effectiveness of OFT teachers is the support from school leaders. Leaders who prioritize human capital and understand the challenges faced by OFT teachers significantly contribute to their professional development and the overall learning environment (Du Plessis, Gillies, & Carroll, 2014). Furthermore, the study of Biebricher (2024) suggests that communities of practice support OFT and can become part of teacher identity. Additionally, a reduction in OFT workload, and access to formal subject-specific mentoring are mechanisms to promote teachers' capabilities in OFT.

The persistent shortage of qualified teachers, especially in specialized fields, exacerbates the issue of OFT, resulting in qualification mismatches and increased instances of OFT (David & Ducanes, 2018; Bajar et al., 2021; Pacana et al., 2019). The implementation of the K to 12 program has intensified these challenges, negatively impacting instruction and student learning outcomes. Wyatt & Hobbs (2024) expressed that the OFT phenomenon will always be part of the education environment, but how it is managed makes a difference to the quality of education for all students. Therefore, this study investigates the prevalence of OFT in the Northern Mindanao, Philippines, by identifying the profile of OFT teachers, and explores the challenges they encounter. Furthermore, it analyzes their coping mechanisms, assesses their level of professional esteem, and evaluates their competency. By addressing these key areas, the study provides valuable insights into the experiences of OFT teachers, informing policy development and professional support initiatives in the education sector. Additionally, the findings can guide the design of capacity-building programs to enhance teachers' knowledge and skills, ultimately contributing to improved student learning outcomes.

Research Questions

This study aims to explore the prevalence of OFT in one of the regions of the Philippines. Specifically, it aims to address the following questions:

- What is the prevalence of OFT in the Northern Mindanao region of the Philippines?
- What is the demographic profile of OFT teachers?
- What challenges do OFT teachers encounter in their profession?
- What coping mechanisms do OFT teachers employ to address the challenges they face?
- What is the level of professional esteem among teachers?
- What is the level of competency among OFT teachers?

DESIGN AND METHODS

Research Design and Instrumentation

This study employed a quantitative descriptive research design to accurately describe the data, specifically in presenting the demographic profile, behaviors, or opinions of the OFT teachers in Northern Mindanao which is one of the region in the Philippines. A survey questionnaire was developed to gather data, consisting of 5 sections: 1) consent, agreement to collect personal data, and profile questions 2) professional self-esteem scale of the respondents for the subject/s handled not within their field of specialization, 3) competency scale of the respondents for the subject/s handled not within their field of specialization, 4) challenges encountered in handling out-of-field subjects, and 5) coping mechanisms of the respondents. Questions in sections 4 and 5 were developed by the researchers based on insights from the pilot testing and were tested for validity, while questions in section 2 were adapted from Hong et al. (2002) and Mueller (2021), and questions in section 3 were adapted Venkatesh et al. (2003), Kwan and Bryan (2010), Hsieh et al. (2008) and Van der Zee et al. (2002). The data was summarized using the mean, frequency, and percentage. A weighted mean was utilized to analyze the Likert scale questions on their level of professional self-esteem, level of competence, challenges encountered, and coping mechanisms.

Procedures in Data Gathering

The questionnaire was subjected to pilot testing to assess its clarity and appropriateness for the intended participants, with the primary objective of ensuring that the collected responses accurately reflected the desired outcomes. Subsequently, in the final phase of data collection, the researchers collaborated with and secured approval from the Director of the Department of Education (DepEd) in Northern Mindanao to proceed with the study. During the data collection process, the researchers provided a comprehensive briefing to the participants regarding the study's objectives and distributed informed consent forms, thereby allowing participants the autonomy to decide whether to partake in the survey.

Sampling Design

The researchers derived the total number of SHSs in Northern Mindanao offering strands under the Academic track based on the available data on the website of the DepEd. The academic track is designed for students who are planning to proceed to tertiary education. This category offers a preview of certain courses that students can take up to the next level. There are basically four strands to choose such as General Academic Strand (GAS), Humanities and Social Sciences (HUMSS), Science, Technology, Engineering, and Mathematics (STEM), and Accountancy, Business and Management (ABM). Proportionate convenience sampling was used in identifying the number of schools covered in the study. Northern Mindanao also Known as Region X comprises five provinces namely Bukidnon, Camiguin, Lanao Del Norte, Misamis Occidental, and Misamis Oriental. The researchers collected data on the proportions of the total SHS with academic track per province of Northern Mindanao to ensure that the sample represents the population. Convenience sampling was utilized because schools are selected based on their accessibility. For selecting the respondents, complete enumeration was employed to include all the teachers present during the survey.

As shown in Table 1 is the sample size of schools per province in Northern Mindanao. The study covered 41 out of 69 identified SHSs offering strands under academic track. During the survey, only 648 out of 949 SHS teachers participated in the study, resulting in an overall response rate of 68.28%.

Table 1. Sample Size Distribution of SHS teachers in Northern Mindanao, Philippines

Provinces of Northern Mindanao	Total No. of SHS	Sampled SHS	Total No. of Teachers from Sampled SHS	Total No. of Respondents	Response Rate (%)
Bukidnon	22	13	250	163	65.2
Catarman	2	1	23	22	95.65
Lanao del Norte	9	6	180	126	70
Misamis Occidental	7	4	131	120	91.60
Misamis Oriental	29	17	365	217	59.45
TOTAL	69	41	949	648	68.28

RESULTS AND DISCUSSION

Table 2 presents the proportion of OFT teacher respondents relative to the total number of SHS teacher respondents in Northern Mindanao. The findings indicate that among the 648 teachers who participated in the survey, 54.78% were classified as OFT teachers, highlighting its prevalence in the region. At the provincial level, Misamis Oriental recorded the highest proportion of OFT teachers at 59.91%, followed by Camiguin (59.09%), Bukidnon (55.21%), Misamis Occidental (53.33%), and Lanao del Norte (46.03%). These results suggest that OFT is most prevalent in Misamis Oriental compared to other provinces in Northern Mindanao, Philippines. The widespread challenge of teacher shortage or mismatching of skills in the region may significantly impact the quality of education intended by the K to 12 program.

Table 2. Percentage of OFT Teacher Respondents to Total Senior High School Teacher Respondents in Northern Mindanao, Philippines

Provinces of Northern Mindanao	Total No. of Respondents	No. of OFT Teachers	No. of Within Field Teachers	% of OFT Teachers
Bukidnon	163	90	73	55.21
Camiguin	22	13	9	59.09
Lanao del Norte	126	58	68	46.03
Misamis Occidental	120	64	56	53.33
Misamis Oriental	217	130	87	59.91
Total	648	355	293	54.78

Table 3 presents the profile of OFT teachers in Northern Mindanao. Their age ranges from 21 to 60, with an average age of 35, which can be considered early middle-aged. The age range indicates that the incidence of OFT is evident in newly hired teachers and even in those of retirement age. Regarding sex, 69.86% of OFT SHS teacher respondents in the Region are females, and only 39.44% are males. This is consistent with World Bank statistics from 2020, which show that 70.68% of secondary school teachers in the Philippines are female. As articulated by Bongco and Abenes (2019), the educational system in the Philippines has been marked by a high proportion of female educators. Notably, most of the OFT SHS teacher respondents in Northern Mindanao have earned master's units, followed by baccalaureate degrees and master's degrees, constituting 36.90% and 17.46%, respectively. Hence, it can be inferred that a significant portion of OFT teachers in Northern Mindanao have pursued graduate-level education. Moreover, data in Table 3 shows that the 355 respondents of OFT teachers in Northern Mindanao teach across multiple fields outside of their specialization. More than 50% are handling subjects in GAS and HUMSS, while a little over 17% are handling subjects in STEM. Northern Mindanao is short of teachers to handle GAS and HUMSS subjects, assigning these subjects to teachers who specialize in other fields. Though there are still Out-of-Field teachers handling ABM and STEM subjects, they are seemingly not of serious concern in proportion. The effect of assigning teachers outside their specialization may lead to reduced quality of instruction for all strands of K to 12 due to the lack of expertise.

Table 3. Profile of OFT teachers in Northern Mindanao, Philippines

Category	Value
Age	
Mean	35
Min	21
Max	60
Sex (%)	
Male	39.44
Female	69.86
Highest Educational Attainment (%)	
College Graduate	36.90
Master's Unit	39.15
Master's Graduate	17.46
PhD Candidate	4.51
Ph.D. Graduate	0.56
Postgraduate	1.41
*Strand Classification of Out-of-field Subjects Handled (%)	
ABM	7.37
GAS	56.98
HUMSS	53.28
STEM	17.37

Total No. of Respondents = 355

* This is a multiple-response question; hence, data do not add up to 100%

Table 4 depicts the challenges encountered by OFT teachers in Northern Mindanao. The findings indicate that for content knowledge, the majority of the challenges they encountered pertain to the “need to spend more time studying the topic” and “the need to familiarize the subject matter before teaching.” Further, results show that they perceived “the need for much preparation” and “the lack of deeper experiences in teaching related to the out-of-field subject” to be less challenging than those on the list. This suggests that the OFT teachers in Northern Mindanao do not have difficulty learning about and engaging in subjects outside their field. Despite potential content knowledge gaps, OFT SHS teachers will find means to deliver their lectures and immerse themselves in the subject as necessary. On the other hand, the two professional development or training issues that drew the most attention were the lack of teacher enhancement training and research seminars. This might result from a lack of resources, such as funding for academic institutions or trainers, as training and seminars can be costly and time-consuming. Notably, 11.30% of OFT teachers in Northern Mindanao revealed that lack teaching experience is one of the challenges they faced. This can be linked to the issue of SHS teachers lacking practice teaching experience. Bantugan and Ocon (2020) revealed that the new SHS Program allowed non-education graduates to teach specialized courses. For instance, individuals with backgrounds such as engineering can now teach math and science courses, while accountants can delve into accounting and finance subjects. This extension of teaching roles to professionals outside the education field brings to light a potential challenge regarding their teaching experiences. If left unaddressed, this challenge could potentially hinder the optimal learning experience for students (Bantugan and Ocon, 2020; Nuñez, 2021; Capulos and Sicat, 2020)

Table 4. Challenges Encountered by Out of field Teachers in Northern Mindanao, Philippines

Challenges Encountered	Frequency	Percentage
Content Knowledge		
Needs to spend more time studying the topic	250	70.42
Subject matter needs to be familiarized before teaching	248	69.86
It needs much preparation	184	51.83
Lack of more profound experiences in teaching related to the out-of-field subject	130	36.62
Professional Development/Training		
Lack of teachers’ enhancement training	275	77.40
Lack of research seminars	177	49.72
No practice teaching experience	40	11.30
Teaching Resources		
Lack of available materials (printed and electronic) for the out-of-field subject taught	228	64.12
Lack of technical support (ICT materials, projector)	182	51.13
No available reference books or modules with problem sets and key answers	141	39.83

Total No. of Respondents = 355

In addition, as shown in Table 4, when it comes to teaching resources, the majority of the OFT teacher respondents in Northern Mindanao lamented the lack of printed and electronic materials for the subject matter being taught and the absence of technical support (i.e. ICT materials, projector). These challenges received a total percentage of 64.14 and 51.13 in Northern Mindanao, respectively. It must be noted that ICT is a must for all educators in the twenty-first century. According to Santos Castro (2021), various studies have demonstrated how technology supports student learning. Therefore, school administrators must focus on these insufficiencies to improve the morale and effectiveness of these OFT teachers. Lastly, the findings also indicate that compared to other teaching materials, there are substantially more reference books or modules with problem sets and critical solutions available for OFT teachers in Northern Mindanao. Based on the challenges identified, addressing them is crucial to improve teacher effectiveness and achieve the goals of the K to 12 program, which aims to elevate the quality of education in the Philippines.

The coping mechanisms used by OFT teachers to overcome difficulties they experienced when teaching subjects outside their areas of expertise are shown in Table 5. The results show that OFT teachers in Northern Mindanao frequently turn to independent study to solve their topic knowledge

challenges. This demonstrate that they rely on self-study to overcome topic knowledge difficulties. Given the difficulty they experienced with content knowledge, self-study may be their preferred strategy as it is the least expensive and time-consuming option. In addition, they turn to Learning Action Cell (LAC) Sessions, Peer-to-Peer coaching, and Mentor-mentee coaching to address topic knowledge deficiencies. Though these strategies can be cost-effective as they only need to get mentors and coaches internally, they demand significant time. The heavy workloads often faced by teachers might leave them little free time to engage in these kinds of activities.

Table 5. Coping Strategies of OFT Teachers by Challenges Encountered in Northern Mindanao, Philippines

Category	Overall Weighted Mean	Qualitative Interpretation
Content Knowledge		
Self-study on available modules and materials related to the out-of-field	4.46	Always
Peer-to-peer coaching, Mentor-mentee coaching, and Learning Action Cell (LAC Sessions)	4.05	Often
Professional Development Activities		
Research Congress	3.41	Often
Teaching enhancements training and seminars for out-of-field subjects (LAC Session)	3.83	Often
Providing webinars for teachers	3.70	Often
Question-answers sessions with previous teachers who handled the subjects	3.85	Often
The mentor-mentee program and attending seminars	3.69	Often
Teaching Resources		
Utilizing ICT Integration	4.31	Always
Utilizing published research relating to out-of-field subjects	3.91	Often

Total No. of Respondents = 355

Regarding their coping strategies for the difficulties they encountered under professional development, the majority of OFT SHS teachers in the region frequently engage in question-and-answer sessions with former instructors who handled the subjects, training sessions and seminars on teaching enhancements, webinars for teachers, and mentor-mentee programs as revealed in Table 5. Among the coping mechanisms listed, the strategy based on question-and-answer sessions with the previous teacher who handled the subjects received the highest weighted means. It is rational, considering how time-efficient the method is. The OFT teachers can acquire insight and teaching ideas on effectively delivering the subject by approaching colleagues who have previously taught the same subject. In terms of teaching resources, OFT teachers in Northern Mindanao always use ICT integration to cope with issues connected to teaching resources. As ICT integration is somewhat tricky in most schools, as discussed in the previous section, they may not have technical support. However, they may be willing to deal with the situation by enhancing classroom setup, utilizing internet connectivity, and purchasing modern computer equipment to overcome ICT challenges. According to Bonifacio (2013) and Tomaro et al. (2018), ICT integration can take many forms, including infrastructure and facilities, people resources, and technological leadership.

The data in Table 6 illustrates the degree of professional self-esteem and competence that OFT teachers in Northern Mindanao possess. Professional self-esteem was measured by the following indicators: Acceptance of the Profession, Pride in the Profession, Value of the Profession, and Belief in Professional Capabilities. Based on the data, a high level of professional self-esteem may be inferred from the overall means of the OFT teachers in Northern Mindanao. This implies that OFT teachers generally have a favorable personal judgment regarding their overall sense of self-worth in

the workplace. Note that Carmel (1997) describes professional self-esteem as a person's attitude toward their professional ability, performance, and worth on a positive-negative dimension. Based on the literature, OFT teachers harness their understanding of professional standards, particularly in the context of their specialty subject, to facilitate the transfer of reflective processes and pedagogical intentions (Caldis, 2022). By doing so, they adeptly comprehend and teach subjects beyond their primary expertise. In a recent study, Castro et al. (2023) claimed that educators confronted with teaching assignments beyond their initial training exhibit a notable level of self-assurance in their teaching capabilities. In addition, Manaig et al. (2023) emphasize that professional self-esteem strengthens work engagement, sustaining confidence despite subject mismatch.

Table 6 Professional Self-esteem and Competence Level of OFT teachers Northern Mindanao, Philippines

Category	Weighted Mean	Qualitative Interpretation
Level of Professional Self-esteem	4.08	High
Level of Competence	3.85	High

Table 6 also shows the degree of competency of OFT SHS teacher respondents measured in terms of content knowledge, pedagogical content knowledge, and technological content knowledge. The result indicates that OFT teachers in Northern Mindanao possess high competency. It is worth noting that despite the challenges associated with OFT, these educators exhibit a high level of competence, which is consistent with the findings of other researchers (Evarado & Abina, 2023; Anub, 2020; Sahay, 2020; Kasa Ayten, 2021; Schmidt's, 2009). Their findings highlight the potential impact of technology integration on teachers' ability to effectively apply pedagogical strategies that enhance content delivery (Ceylan, 2023) and student learning experiences.

CONCLUSION AND RECOMMENDATIONS

The prevalence of OFT teachers in SHS across Northern Mindanao is a significant issue, with more than half of the surveyed respondents classified as OFT teachers. This highlights the widespread challenge of teacher allocation in the region, where many educators are assigned to teach subjects outside their areas of expertise. The age range of OFT teachers spans from 21 to 60 years, with an average age of 35, indicating that most are in the early to mid-stages of their careers. This demographic profile suggests that while these teachers are relatively young and adaptable, they may still face challenges in acquiring the specialized knowledge needed for subjects outside their specialization. The majority of OFT teachers are female, reflecting the broader trend of female dominance in the Philippine education sector, where women make up a significant portion of the teaching workforce. Additionally, a notable proportion of OFT teachers hold advanced degrees, such as a master's degree, which indicates that they possess the academic qualifications necessary for professional growth. However, despite their qualifications, many of these teachers are assigned to teach in the GAS and HUMSS strands, where a mismatch between their expertise and the required subject knowledge can challenge the quality of education delivered to students. This situation emphasizes the pressing need for a strategic approach for professional development to ensure better learning outcomes.

OFT teachers encounter considerable challenges, particularly in content knowledge, access to teaching resources, and professional development opportunities. To address these gaps, they often rely on independent study, LAC sessions, peer coaching, mentorship programs, and ICT integration. While these coping mechanisms demonstrate adaptability and resilience, they also highlight the need for more structured and institutionalized support systems. Despite these challenges, OFT teachers in Northern Mindanao exhibit high levels of professional self-esteem and competence, reflecting their commitment to their profession.

Addressing these challenges requires practical and targeted interventions that can be implemented effectively at both the local and institutional levels. Specialized training programs and capacity-building workshops tailored to the needs of OFT teachers should be prioritized to equip them with the necessary content knowledge and pedagogical skills for the subjects they are assigned to teach. In addition, improving access to quality teaching materials and resources, particularly in underserved areas, will help bridge gaps in content knowledge and enhance teaching effectiveness.

Continuous professional development opportunities, such as regular mentoring and peer coaching programs, should also be institutionalized to foster collaboration, knowledge sharing, and a supportive learning community. By addressing these key areas will create a more sustainable and effective educational environment. This approach will enhance both teacher performance and student outcomes, ultimately contributing to the goals of the K to 12 program in the Philippines.

AUTHORS' CONTRIBUTIONS

CMC and MRYT played a key role in conceptualizing the research topic. CMC also led the strategic planning, setting key milestones for the study's completion, and facilitated the analysis by processing the data. JMEP contributed significantly to the review of related literature, strengthening the study's empirical literature. MLAB and GLD played a vital role in gathering secondary data, which was essential for establishing the sample size. All authors actively participated in the collection of primary data across the provinces of Northern Mindanao, Philippines, ensuring comprehensive data representation. Finally, all authors collaborated in writing, reviewing, and finalizing the manuscript, ensuring the research's overall quality and coherence.

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8. REFERENCES

- Aðalsteinsson, R.A., Frímannsdóttir, I.B., & Konráðsson, S. (2014). Teachers' self-esteem and self-efficacy, *Scandinavian Journal of Educational Research*, 58(5), 540-550, DOI:10.1080/00313831.2013.773559
- Bacus, R. C., and Alda, R. C. (2022). Senior high school teaching: A phenomenological inquiry. *Malaysian Journal of Learning & Instruction*. <https://doi.org/10.32890/mjli2022.19.1.9>
- Bamusibile, C., Kato, J. K., Mugizi, W., Kyozi, P. & Muloopa, H. (2024). Impact of Competency and Self-esteem on the Teacher Engagement at Jinja City Primary Schools, Uganda *East African Journal of Education Studies*, 7(2), 55-69. <https://doi.org/10.37284/eajes.7.2.1860>
- Bantogan, B.S. and Ocon, C.A (2022). Experiences of First-Time Teachers for Senior High School: Implications to Faculty Development. *International Journal of Arts and Social Science*. Retrieved from https://www.researchgate.net/publication/363480268_Experiences_of_First-Time_Teachers_for_Senior_High_School_Implications_to_Faculty_Development
- Biebricher, C. (2023). Out-of-field Mandarin teaching and its effects on teacher identity developments – Experiences of Aotearoa New Zealand primary school teachers, *Teaching and Teacher Education*, Volume 132,104241,ISSN 0742-051X, <https://doi.org/10.1016/j.tate.2023.104241>.
- Cabral, J.V., and Millandro, M.R. (2019). School Learning Action Cell (Slac) Sessions and Teachers' Professional Development in Buhaynasapa National High School. *Ascendence Asia Journal of Multidisciplinary Research Abstract*. Retrieved from <https://ojs.aaresearchindex.com/index.php/AAJMRA/article/view/8463>
- Caldis, S. (2022) Transitioning into the profession with an out-of-field teaching load. In: Hobbs, L, Porsch, R, (eds) *Out-of-field teaching across teaching disciplines and contexts*. Springer, Singapore. doi.org/10.1007/978-981-16-9328-1_13
- Capulso, L.B and Sicat, A.T. (2020). NEMO DAT QUOD NON HABET! The Lived Experience of Senior High School Teachers Teaching Practical Research Subjects. *Journal NX – A Multidisciplinary Peer Reviewed Journal*. Retrieved from <https://repo.journalnx.com/index.php/nx/article/view/1194>
- Castro, M.A., Asigno, R.A., & Recede, R.A.A. (2023). Out-of-Field Teaching: Impact on Teachers' Self-Efficacy and Motivation. *International Journal of Multidisciplinary: Applied Business and Education Research*.4(2), 519–533. doi: 10.11594/ijmaber.04.02.19

- Ceylan, G., Eken, M.O., Yuruk, S., Emir, F. (2023). Examining the Influence of Self-Esteem and Digital Literacy on Professional Competence Factors in Dental Education: A Cross-Sectional Study. *Applied Sciences*, 13, 9411. <https://doi.org/10.3390/app13169411>
- Darling-Hammond, L., Hyler, M.E., and Gardner, M. (2017). Effective Teacher Professional Development. Retrieved from <https://files.eric.ed.gov/fulltext/ED606741.pdf> on August 10, 2023
- Du Plessis, A. E., Gillies, R. M., & Carroll, A. (2014). Out-of-field teaching and professional development: A transnational investigation across Australia and South Africa. *International journal of educational research*, 66, 90-102.
- Du Plessis, A. E., Wheeley E., Klieve, H., Gramotnev, DK., and Park, E. (2023). The out-of-field phenomenon: Perceptive consequences and Support Needs Through the Lens of graduating second career preservice teachers. *Journal of University Teaching & Learning Practice*, 20(1). <https://doi.org/10.53761/1.20.01.09>
- Du Plessis, AE, Gilles, RM, and Carroll, A. (2014). Out-of-field teaching and professional development: A transnational investigation across Australia and South Africa. *International Journal of Educational Research*. 66 (2014) 90–102. <http://dx.doi.org/10.1016/j.ijer.2014.03.002>. Retrieved from www.elsevier.com/locate/ijed u res
- Ednave, R., et al., (2018). Problems and challenges encountered in the implementation of the K to 12 Curriculum: A Synthesis. School of Teacher Education and Liberal Arts, Saint Louise University. Retrieved from https://www.academia.edu/39704530/PROBLEMS_AND_CHALLENGES_ENCOUNTERED_IN_THE_IMPLEMENTATION_OF_THE_K_TO_12_CURRICULUM_A_SYNTHESIS. Accessed on June 25, 2022.
- Evardo, O.J., and Abina, I.L.S (2023). Research Competence of out-of-field teachers in Teaching Practical Research. Input to Capability Building Series. *International Journal of Multidisciplinary Research*. DOI:10.36948/ijfmr.2023.v05i02.1808
- Hanushek, E. (2019). Do Higher Salaries Buy Better Teachers? 53(9), 1689–1699. <https://doi.org/10.1017/CBO9781107415324.004>
- Hobbs, L., & Porsch, R. (2021). Teaching out-of-field: challenges for teacher education. Retrieved from <https://doi.org/10.1080/02619768.2021.1985280>
- Leconey, K. (2018). How an advanced degree in education is perfect for making a community impact. Retrieved from <https://learn.neumann.edu/neuperspectives/how-an-advanced-degree-in-education-is-perfect-for-making-community-impact> on August 10, 2023
- Manaig, K.A., Buenvinida, L.P., Yazon, A.D., & Bonganciso, R.T., (2024). Unveiling the link between organizational commitment, professional self-esteem, and work engagement of Filipino faculty members in state universities and colleges. *Ho Chi Minh City Open University Journal of Science*, Vol. 14(1), Pages 52-70. Ho Chi Minh City Open University.
- Mesias, J.C.M. (2022). Out-of-field Senior High School Teachers: Competencies in Teaching Physical Education. *Physical Education and Sport: Studies and Research*. DOI: 10.56003/pessr.v1i2.137
- Nickell, S. J., and Quintini, G. (2002). The consequences of the decline in public sector pay in Britain: A little bit of evidence. *Economic Journal* 112, F107-F118.
- Nuñez, V.C.C (2021). Lived experiences of senior high school teachers in handling mainstream classes: Teacher development plan. SEAMEO Regional Centre for Special Educational Needs. DOI: <https://zenodo.org/record/6906638>
- Pacana et al. (2019). Out-of-Field Social Studies Teaching through Sustainable Culture-Based Pedagogy: A Filipino Perspective. *International Journal of Science Education*. 7. 230-341. [10.18488/journal.61.2019.73.230.241](https://doi.org/10.18488/journal.61.2019.73.230.241).
- Paderes, R.S. (2022). Investing in Professional Development of Teachers Matter. Retrieved from <https://deped-ne.net.ph/2022/05/02/investing-on-professional-development-of-teachers-matter/> on August 10, 2023
- Porsch, R.; Hobbs, L. Principal Attitudes towards Out-of-Field Teaching Assignments and Professional Learning Needs. *Education Sciences*, 14, 783. <https://doi.org/10.3390/educsci14070783>
- Ross, E., Hobbs, L. (2024). Stretching the boundaries: the rise and rise of out-of-field teaching in Australia. *Curriculum Perspectives*, 44, 579–585. <https://doi.org/10.1007/s41297-024-00282-7>

- Sahay, M. (2020). Multiple Intelligence, Teacher Competency & Self-Esteem of School Teachers. *International Education and Research Journal (IERJ)*, 6(8). Retrieved from <https://ierj.in/journal/index.php/ierj/article/view/2100>
- Shulman, L. S. (1988) The dangers of dichotomous thinking in education. In P. Grimmer and G. Erickson (Eds.)
- Verbo, RJC (ND). Learning Action Cell (LAC) is a School-Based Continuing Profession Development Program. Retrieved from <https://atcm.mathandtech.org/EP2020/regular/21782.pdf> on August 10, 2023
- World Bank (2022). Education Overview: Development news, Research Data. Retrieved from <https://www.worldbank.org/en/topic/education/overview>
- Wyatt, J.E., & Hobbs, L. (2024). Profiling the status of out-of- field teaching in Western Australia: graduate teacher and principal perspectives, *Asia-Pacific Journal of Teacher Education*. DOI: 10.1080/1359866X.2024.2326878
- Xie, J., and Rice, MF (2020): Professional and social investment in universal design for learning in higher education: insights from a faculty development program, *Journal of Further and Higher Education*, DOI: 10.1080/0309877X.2020.1827372
- Zhuo, Yisu. (2012). Out-of-Field Teaching: A Cross-National Study on Teacher Labor Market and Teacher Quality.