

RESEARCH ARTICLE

Teachers handling multiple subject areas: Difficulties and adaptive attributes in the delivery of instructions

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ABSTRACT

The adoption of K–12 program wanted to produce better proficient pupils with the skills needed for both job and lifetime study. Though the Department of Education (DepEd) emphasized the need for many teachers, issues like the number of students enrolled in the program and the subjects that require specialized instruction tend to increase. Instructors end up teaching subjects other than their area of expertise, which is a problem that schools all around the country are still facing today. This qualitative-phenomenology study carried out a small-scale interview that investigated the challenges faced by teachers who had to teach multiple subject areas. Teachers (n=8) were purposively sampled according to their subject areas. Thematic analysis indicated that teachers were troubled of teaching multiple subject areas because of the preparation process they need to consider, the difference in teaching materials and even their teaching methods matter. Some noted that the process was not effective because the subject mastery was insufficient. These have major implications in education in the Philippines especially it was a common practice to give teaching loads to teachers having competence beyond their area of expertise. This highlighted the need to reevaluate teaching assignments and strategies for professional development to ensure that educators have the necessary competence to effectively teach in different subject areas.

Keywords: emotional adaptation; instructional mastery; instructional preparation; K-12 program; out-of-field teaching

1. Introduction

Philippines' education system adopted the newly implemented K-12 program last year 2012 where there was an additional two years from the original four years, making the learners to be in high school for 6 years. K-12 program implementation is aimed at creating more skilled students with basic skills for lifelong learning and employment. This program furthermore will encourage and showcase the skills of Filipinos to be recognized across the globe^[1]. However, with the number of learners enrolled in the program, though

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DepEd reiterated the number of loads of teachers required in teaching, problems such as the teaching loads and subjects to be taught by a specialized teacher tend to rise.

Out-of-field teaching is growing phenomenon in education systems worldwide, presenting a significant issue for teachers, teacher educators, and policymakers^[2,3]. Du Plessis^[4] proposed the concept of out-of-field methods of instruction, which refers to situations where qualified teachers, who may possess high levels of qualifications, receive assignments to instruct in positions that do not align with their suitable qualifications and/or expertise. The purpose of this study was to analyze the difficulties and adaptive strategies of teachers handling different subject areas in instructions. This quantitative-phenomenological study described the different aspects that made teaching multiple subject areas challenging for teachers and how they adapted to them.

Teachers resort to handling multiple subject areas besides their field of specialization, a challenge which up until today, schools across the nation are experiencing. This phenomenon has become common in many countries not just in the Philippines, however internationally there are differences in how it is exhibited, considered, and responded to^[5]. Tomlinson^[6] noted that teachers carry the complete educational responsibility for the entire range of students' learning. Consequently, they are regarded as accountable for equipping their students with the necessary knowledge and skills to thrive in the globalized workforce landscape^[7]. However, research on the out-of-field teaching phenomenon has revealed that teachers who find themselves in out-of-field positions often exhibit a deficiency in their content knowledge, which subsequently hampers their ability to engage in meaningful and in-depth discussions on the subject matter with their students^[8]. In fact, the Australian Council for Educational Research reported that 26% of teachers currently teaching students in Years 7-10, are teaching subjects that are outside their area of expertise^[9].

In the context of vocational and training (VET) in Australia, for example, Nakar Bagnall and Hodge^[10] argued that the range of tasks performed by teachers in VET is expanding putting demand for VET teachers to adapt to changes in their field. However, out-of-field teaching has emerged as a significant dilemma faced by VET teachers considering the rapid transformation occurring within the sector's organizational culture. The quandary encountered when instructing subjects beyond the teachers' area of expertise revolved around the decision of whether to accept the task of teaching those subjects or decline, thereby potentially forfeiting remunerated teaching hours^[7].

In the Philippines, out-of-field teaching is also a common practice. One possible explanation for this phenomenon could be attributed to the department's long-standing practice and lack of implementation of reforms addressing the issue of out-of-field teaching in DepEd schools across the country^[11]. It appears that out-of-field instruction is generally perceived as more of a convenience rather than a mandatory requirement in most instances.

Among the mathematics teachers in Misamis Oriental, Philippines, Lopez and Roble^[11] identified challenges that were primarily centered around the subject matter knowledge and pedagogical content knowledge. The results of the study indicate that mathematics out-of-field teachers employ a range of instructional methods, actively participate in professional development programs, and utilize diverse assessment strategies to monitor the development of their students. These teachers developed instructional materials to facilitate learning.

There is a positive relationship between teacher quality as “enthusiasm, creativity, flexibility and adaptability and school success of its students. The teacher who exhibits the attitude of allowing changes and learning to love the subjects with students can make the teachings stimulating and enjoyable and can even adapt to new demands. Furthermore, these teachers can improve teaching methods^[12]. Thus, being able to

effectively respond to the inherent novelty, change, and uncertainty that characterizes teaching work is a highly important capacity for teachers^[13].

The purpose of this study extended beyond merely identifying the challenges of teachers handling different subject areas; it aims to shed light on the adaptive strategies employed by educators in the face of these difficulties. With the implementation of the K-12 program in the Philippines aimed at nurturing skilled students equipped for both lifelong learning and employment, the growing phenomenon of out-of-field teaching presents a significant obstacle. By analyzing the experiences of teachers grappling with diverse subject areas, this study seeks to contribute to the ongoing discourse surrounding educational practices and policies, particularly in addressing the mismatch between teacher qualifications and assigned teaching roles.

2. Literature review

2.1. Implications of Out-of-Field teaching

The problem of out-of-field teachers and their teaching methods has been a significant subject in the educational policy and reform for more than ten years^[11]. There are several reasons that contribute to the issue, including discrepancies between a teacher's qualifications and their assigned teaching role, the influence of teachers' labor organizations, and the scarcity of instructors^[11,14-16]. Due to the lack of specialized teachers in the sector, school administrators use substitute teachers to instruct in the subject area with insufficient teachers^[17].

According to Rebucas and Dizon^[18], teachers who are handling subjects outside their area of expertise face difficulties in fully understanding the lesson and preparing for the subject. The study conducted by Gimba et al.^[19] reveals that there is a prevalent negative attitude and subpar performance in the field of science and technology. This can be attributed to the inadequate knowledge and skills of teachers in the science and technology subject^[20]. Teachers require assistance in understanding the non-technical vocabulary used in the context of science, and many need to possess a high level of proficiency in the scientific language used in the classroom. Consequently, the effectiveness of the teaching and learning process is hampered^[21,22].

2.2. Preparation and instruction

Early-career educators are more vulnerable to facing negative consequences of out-of-field teaching^[23]. They have to deal with unusual structures, content, and teaching methods, all while lacking extensive subject expertise and having limited teaching experience. Wheeley et al.^[16] argued that the present school rules and procedures do not provide adequate support for additional time dedicated to planning and preparation. Teachers expressed many challenges they experienced outside of teaching, including difficulties in dealing with student motivation and concerns about choosing appropriate teaching strategies, lack of background information and support^[12].

It has been observed that teachers who are teaching outside their field of expertise initially demonstrate unsatisfactory teaching performance. These teachers invest a significant amount of time in studying the lessons^[24,25]. Similarly, Datingaling^[25] found out that teachers are also allocating longer time towards establishing appropriate pedagogy due to their incomplete training in subject instruction. Out-of-field teachers dedicate a considerable amount of time to lesson preparation compared to the time they teach the lesson^[26]. These teachers face the challenge of comprehending the structure of a lesson, particularly when it involves unfamiliar subject matter^[24,26,27].

2.3. Teacher's Content and Instructional Mastery

Mastery in instruction equips teachers with the skills and knowledge necessary to deliver engaging and comprehensive lessons, catering to diverse learning styles and needs within the classroom^[28]. Through instructional mastery, educators can adeptly plan, implement, and assess learning experiences that foster critical thinking, creativity, and problem-solving skills among students^[29]. However, some out-of-field teachers experienced limitations in instructional mastery. For instance, Madulara^[30] noted that one of the primary challenges in teaching social studies is the lack of knowledge in the subject, as some teachers had been assigned to teach a topic outside their field of expertise.

Online music instructors who are not specialists in their discipline are troubled by a sense of uncertainty. They have even compared the experience of teaching music to being blindfolded and feeling lost on instructional delivery. They feel more confident in instructing the subject matter had they exclusively relied on their specialized knowledge or the coursework they completed during their formal education^[31].

2.4. Adapting to Out-of-Field teaching

The dynamic functioning of the teaching requires a favorable attitude and certain special competencies of its practitioners. Teachers' proficiency depends on their attitude to the profession. A positive attitude helps the teacher to create a conducive learner-friendly environment in the classroom which also has a fruitful effect on student learning^[32-36].

Flexibility was one of the factors that assisted the participants in overcoming the challenges they encountered in the field. They readily adapted to the adjustments, which prepared them for the challenges they would face as out-of-field teachers^[17]. Theoretically, out-of-field teachers are faced with the challenge of navigating the boundary that exists between their in-field and out-of-field procedures and situations. Effectively navigating this boundary presents prospects for the growth of one's identity, resulting in heightened understanding and admiration of the subject matter beyond their main field of specialization^[37]. Meanwhile, Modirkhamene and Hassanzad^[38] established that the effectiveness of teaching English is enhanced when qualified teachers are involved in the instructional process. One possible implication of this observation is that when English teachers are knowledgeable about positive classroom management strategies, it can potentially improve their students' academic performance and foster a positive learning atmosphere in the classroom.

3. The current study

The DepEd in the Philippines has made efforts to tackle the issue of recruiting competent and qualified teachers through the implementation of DepEd Order No. 3, s.2016 - Guidelines on the Hiring for Senior High School Teaching Positions. However, even if teachers possess the necessary qualifications, they may still be limited in comparison to their more experienced counterparts who are already in the teaching profession. Regardless of the number of years teachers have spent in educational institutions, the primary challenge lies in transforming subject experts into exceptional teachers^[39,40].

This current study was inspired by the fact that teachers in the Philippines had low salary grade compared to other professions^[41] but have high teaching loads given to them^[42,43]. This research paper would like to acquire information from teachers who are in the position of handling and teaching multiple subject areas in senior high school. Below were the research objectives of this study:

- a) Determine the difficulties teachers experienced in teaching multiple subject areas in terms of the preparation, mastery, and methods.

- b) Determine how did teachers adapt to the difficulties you experienced in teaching multiple subject areas in terms of preparation, mastery, methods.
- c) Determine the internal adaptive attributes that helped in teaching multiple subject areas.

4. Methods

This study explored the difficulties of the teachers handling multiple subject areas and know as well how these participants managed to adapt to the difficulties in terms of preparation, mastery, and teaching methods and what internal adaptive attributes helped them in teaching multiple subject areas.

4.1. Research design

This study adopted the qualitative research approach. The qualitative method is used to be utilized to understand people's view or beliefs, experiences attitudes, behavior, and interaction^[44]. Qualitative research is a type of research that explores and provides deeper insights into real-world problems^[45-47].

Wilhelm Dilthey, a German philosopher, established the basis for interpretivist paradigms by establishing the concept of *Verstehen* (meaning 'understanding') to redefine reality as consisting of at least "natural reality and social reality"^[48]. During the early 1900s, the German philosophical tradition developed and nurtured this concept, which eventually evolved into the phenomenological methodology^[49]. During the 1960s and 70s, Phenomenology became increasingly popular, mostly due to the influence of Martin Heidegger, who advocated for an interpretative or hermeneutic method, and Edmund Husserl, who preferred a descriptive or transcendental approach. Both prioritized the substance of a person's experience as the subject of study, which led to a shift in research focus from the external and visible aspects to the invisible and ineffable elements of human existence. While interpretivist thought was stimulating the development of new phenomenological methodologies and researchers, a distinct sub-approach that prioritizes data above interpretation was emerging in the field of qualitative research.

Phenomenology prioritizes the exploration of individuals' subjective experiences, prompting a shift in research focus towards the invisible and ineffable aspects of human existence. In this study, phenomenological interviews uncovered the experiences of teachers, shedding light on the intricacies and challenges inherent in their multiple teaching roles across different grade levels. Through phenomenological inquiry, researchers captured the essence of teachers' experiences, providing valuable insights for educational practitioners and policymakers alike. By employing phenomenology, this study aimed to deepen the understanding regarding the complexities faced by teachers informing strategies for instructional mastery and enhancing educational practices.

4.2. Participants and sampling technique

The participants in this study were purposively selected teachers who are handling multiple subjects from one of the education divisions in Zamboanga Peninsula. The participants were selected based on their willingness to be interviewed about their experiences, particularly the difficulties they have encountered in teaching multiple subject areas. Researchers made use of purposive sampling. Purposive sampling is widely used in identifying and selecting respondents who are knowledgeable or have experiences with the phenomenon^[50]. The subject taught by the participants is presented in **Table 1**.

Table 1. Basic information of respondents.

<i>Code</i>	<i>Area of Specialization</i>	<i>Sex</i>	<i>Years in Service</i>	<i>Area of Specialization</i>	<i>Subjects Taught besides field of specialization</i>
Participant 1	Physical Science	Male	8 years	Physical Science	Komunikasyon at Pananaliksik, 21 st Century Literature
Participant 2	Biological Science	Female	10 years	Biological Science	Physical Education and Health and Media and Information Literacy
Participant 3	Aquaculture	Male	11 years	Aquaculture	Understanding Culture, Society and Politics, 21 st Century Literature and Empowerment Technology
Participant 4	Mathematics	Female	5 years	Mathematics	Personal Development
Participant 5	Home Economics	Female	7 years	Home Economics	Komunikasyon at Pananaliksik, Oral Communication and Introduction to Philosophy
Participant 6	Biology	Male	7 years	Biology	Introduction to Philosophy, Physical Science and Chemistry
Participant 7	Araling Panlipunan	Female	15 years	Araling Panlipunan	Komunikasyon and Pagbasa at Pagsulat tungo sa Pananaliksik
Participant 8	TLE-Home Economics	Female	12 years	TLE-Home Economics	Practical Research and Entrepreneurship

4.4. Data gathering procedure

The researchers of this study obtained the participants' consent to collect data. The participants acquired a letter confirming permission to conduct the study. All participants were provided the letter of consent and completed an informed consent protocol. The data collection was scheduled following approval. The participants were interviewed at their respective schools using one-on-one interview questions. Using a voice recorder on a cellphone accompanied by jotting down the participant's responses, all interview sessions were recorded.

Conducting a phenomenological qualitative study involved a rigorous and systematic approach aimed at exploring individuals' lived experiences to uncover the essence of a particular phenomenon. The main direction was to provide an exhaustive and unbiased description of the phenomenon, without being influenced by any predetermined framework, while adhering strictly to the facts^[49].

Initially, conducted a thorough review of existing literature to understand the conceptual framework and identify gaps in knowledge. Following this, they carefully select participants who have firsthand experience with the phenomenon under investigation, ensuring diversity in perspectives to enrich the study's findings. According to Welman and Kruger^[50], “*the phenomenologists are concerned with understanding social and psychological phenomena from the perspectives of people involved*”. Hence, the data collection primarily revolved around in-depth interviews, where participants are encouraged to articulate their experiences freely and reflect on the nuances of their lived reality. These interviews were typically semi-structured, allowing for flexibility while ensuring key themes were explored.

The teachers were asked some questions regarding their experiences in out-of-field teaching. The teachers could respond using any dialect/language they feel comfortable with. They were asked how challenging it was for them to adapt to the situation wherein they need to teach students something they also have limited knowledge of. These questions, and the like, developed an understanding about how out-of-field teaching became a significant phenomenon in Philippine education system and why it matters in a large-scale basis.

4.5. Data Analysis

Data from one-on-one interviews were coded and transcribed for this study, and the answers were categorized based on the questions posed. Data analysis was done using thematic analysis. Thematic analysis is a qualitative research method used to identify, analyze, and interpret patterns or themes within a dataset. It involves systematically organizing and examining qualitative data, such as interview transcripts, focus group discussions, or written documents, to uncover recurring ideas, concepts, or experiences^[52-55].

The topics for analysis were generated from the coded data. Sub-themes were then developed using the themes to provide a full understanding of the data. To guarantee the quality and veracity of the responses, the audio recordings of the interviews were transcribed verbatim. After that, the transcripts were coded. Throughout the analysis procedure, the themes and sub-themes were continuously examined and improved to ensure their cohesiveness and relevance to the objectives of the study.

5. Results

5.1. Difficulties experienced in teaching multiple subject areas

Teachers handling multiple subject areas encountered difficulties in the delivery of instructions, specifically, in terms of preparations, mastery, teaching methods and others. The respondents said that in terms of preparations, lesson planning was one of the hardest tasks to do. The different formats used in each subject with the lack of resources made it more difficult to accomplish. Regarding mastery, the teaching-learning process was jeopardized due to the little knowledge the teachers had about the subjects.

To master the concepts, teachers needed to allocate extra time to study and review. Regarding the teaching methods, the respondents said that various subjects are different in terms of teaching methods. With its differences, teachers put effort and time into thinking of the proper strategies to match the teaching methods. Another difficulty encountered by one of the respondents is the art of questioning and responding to students' questions for deeper understanding.

Theme 1: Difficulty in preparation

The participants revealed that they found it challenging to develop lesson plans because of the formats used. For instance, 4A's in Filipino, and 5E's in science are two distinct formats. It was difficult to construct because there were not enough materials. It was draining their energy because they had to spend more time studying, developing instructional materials, and doing other preparations.

“I have difficulty in constructing my lesson plan because other subjects follow different formats. For example, in Filipino, it follows the 4As format which is different from 5Es that I am following in science subject.” **[Participant 1]**

“In terms of my preparation, lack of resources is one of my difficulties.” **[Participant 2]**

“I can say that it was draining my energy. I had to exert more effort in preparation since I do not have the expertise in those subjects. I had to spend more time studying and making my PowerPoint presentation.” **[Participant 3]**

“If it is not your major, like I am teaching Introduction to World Religion, I am going to read in advance. You are just like a student. If you do not read in advance, you are most likely not prepared in front.” **[Participant 7]**

Theme 2: Difficulty in instructional mastery

Due to the teachers' lack of subject-matter expertise, the teaching-learning process was compromised in terms of mastery. Teachers have to set aside more time for study and review to learn the subjects. Moreover, teachers cannot maintain the level of understanding of students. They find it hard to engage their learner to practice critical and creative thinking skills due to the lack of mastery of the lesson which leads them to show a lack of confidence in the delivery of instruction.

“I can say that the quality of the teaching-learning process is not very effective because my knowledge of the subject is little.” **[Participant 1]**

“As a teacher, you know that we have a lot of things to accomplish, and if you teach a subject that is not your major, it will also consume your extra time because you need to study and master the lesson.” **[Participant 2]**

“I cannot also think critically regarding the concepts because my level of knowledge is low.” **[Participant 3]**

“I am not so confident in teaching those lessons, most especially in the delivery of the lesson.” **[Participant 5]**

“Sometimes, you need to go to the level of the students and make the lesson more simplified” **[Participant 6]**

Theme 3: Difficulty in instructional methods

In terms of teaching approaches, respondents stated that different subjects have different teaching methods. Teachers devote effort and time in developing appropriate strategies to complement the instructional methods, regardless of their differences. Due to the lack of mastery of the lesson, teachers tend to use the same methods over and over again such as Lecture-Discussion Method.

“This method is different from the science subject that I am teaching because I am not used to that method. It is a challenging task for me since I have to match the teaching methods to a particular topic.” **[Participant 1]**

“In teaching methods, I also need to put effort and time to think of strategies that will fit to the lesson that is different from I usually strategize from teaching Science.” **[Participant 2]**

“I tend to reiterate my teaching method most of the time which is lecture method. I cannot decide what strategies to use that would best fit a specific topic.” **[Participant 3]**

“It depends on the type of students. Some methods are not applicable to specific students, like TVL students. It is difficult to adjust to their level of understanding.” **[Participant 6]**

Theme 4: Difficulty in in-class management

Another challenge that one of the responders found was the art of questioning and responding to students' queries for better comprehension. The selection of performance tasks is also one of the difficulties they identified due to their low level of mastery of the subject matter. Hence, they find it stressful since they had to exert more effort in understanding the lesson.

“I think another difficulty I encountered was the art of questioning and answering questions from my students. Since I am not that master in those subjects,

I sometimes cannot answer their questions. I am a little frustrated seeing my students not satisfied with my lesson.” **[Participant 1]**

“I am not used to evaluating the performance of the students such as reading reflection papers. I had to take home those papers to check and sometimes it caused delays in some of my work in school.” **[Participant 4]**

“I had a hard time in responding students` answers, especially in doing follow-up questions.” **[Participant 5]**

5.2. Teacher’s adaptability to the difficulties experienced

The difficulties teachers experience handling multiple subject areas push the participants to strive for more impressive outcomes to become better educators. The respondents said that it was easier to adjust to the difficulties in terms of preparation by asking for assistance from teachers who are experts in their field of specialization. The desire to study and adapt to new experiences helped their adjustment to the subjects. They managed to adjust due to exercises included in the educational materials and more internet resources. They use the learning competency to determine which methods of instruction are most appropriate for a certain topic.

Theme 1: Adaptive preparation

The participants stated that in terms of preparation, their experience in teaching over the years has helped them adjust to the struggles of teaching multiple subjects. They were able to adapt because they managed their time efficiently. Despite being resourceful and able to utilize the materials on the internet and modules, the participants revealed that they sought assistance from teachers who specialize in those subjects.

“I was able to adapt to the pressures in terms of preparation by having a time management. I was used to managing my time efficiently.” **[Participant 3]**

“My professional experience has helped me a lot to cope with the difficulties of teaching multiple subjects.” **[Participant 6]**

“I also searched PowerPoint on Google and did some minimal revision of the downloaded presentation.” **[Participant 4]**

“I seek assistance from other teachers who are good in that subject.” **[Participant 1]**

Theme 2: Adaptive instructional mastery

These strategies exemplify proactive approaches employed by teachers to address the challenge of out-of-field teaching, where educators find themselves teaching subjects for which they may not have specialized training or expertise. One participant emphasized the importance of investing time in reviewing lesson content, indicating a commitment to thoroughly understanding the material to ensure effective delivery. Their willingness to engage in extensive research to bolster their understanding of the subject matter. By undertaking thorough research, some teachers seek to bridge any knowledge gaps and enhance their confidence in delivering the lesson effectively. These strategies underscored the value of self-directed learning and resourcefulness in overcoming the challenges posed by out-of-field teaching. Their willingness to learn and adapt to new things contributed a lot to their adjustment to the subjects.

“I invest a lot of time in reviewing the content of the lesson.” **[Participant 1]**

“I adapted it in a way that I am doing thorough research about the subject until such time I believe I can deliver the lesson well.” **[Participant 2]**

“I read and read often more. YouTube is a big help to me. I learned a lot from it and I used it most often because it gave me a simpler and easier explanation.” **[Participant 3]**

“Willing to learn from the experts is one thing that helped me to survive in teaching the lesson.” **[Participant 4]**

Theme 3: Adaptive instructional methods

In connection with the teaching methods, the respondents said that it made their adjustment easier because of them being open to learning from the expert. They were able to adapt because of the prepared activities in the modules and other references from the internet. They use the learning competency to determine what teaching methods best fit a specific topic.

“I am open to technical assistance from my Master Teacher. Sometimes, I address the problem during our Learning Action Cell (LAC) session.” **[Participant 8]**

“It was quite hard, but I have made some adjustments and familiarized myself with strategies that my co-teacher recommends that are effective for students.” **[Participant 2]**

“Sometimes, besides lecture-method, I tried doing games and other fun activities which I also got from YouTube and Google.” **[Participant 6]**

“The objectives of the lesson will tell you what teaching methods to be used. Thank God, I learned this skill during my college days.” **[Participant 1]**

Theme 4: Emotional Adaptive Attributes

Teachers recognize that despite the challenges of teaching multiple subject areas, they can adjust due to their intrinsic adaptive characteristics. They are receptive, adaptable to change, punctual, flexible or versatile, and optimistic and have contributed a lot to the adjustment. On top of that, their determination and perseverance as a teacher helped them to cope and adapt to the difficulties, they experienced handling multiple subject areas.

“I am receptive in a way being open to learning from teachers who specialize in those subjects. I can adapt to the format they taught and always find time to seek help. Lastly, since I handled multiple subjects, I made sure to be punctual and manage my time effectively. If I have free time, I allocate my time to prepare the materials and lesson ahead of time.” **[Participant 1]**

“It helped me to become flexible one, versatile and became more knowledgeable.” **[Participant 2]**

“I always remind myself that this job is what I dreamed of years ago. Now that I have this job, there is no reason for me to give up. So, my perseverance helped me survive the difficulties.” **[Participant 3]**

“Good thing I am resourceful. I maximize the use of resources on the internet. My commitment to performing my duty as a teacher has helped me to survive the challenges.” **[Participant 4]**

“I survive because of the way I see things, the way I perceive things, and the way I experience things, based on my professional experience. Instead of struggling, stressing or crying over it, I just do my best and at least have fun while learning the subject.” [Participant 6]

“You should become determined, and be patient. Because it is not an easy job. Most of the time, it is a tiring job. But because you are a teacher, and you are determined, even though it is not your major, you do your best to teach and impart students’ learning. In return, you learn as well and have professional growth.” [Participant 8]

6. Discussion

The findings from the study revealed several key themes regarding the difficulties experienced by teachers handling multiple subject areas and their adaptive strategies to address these challenges. Teachers encounter challenges in preparation, including the development of lesson plans and the lack of resources, which drain their energy and necessitate additional time for study and material preparation. Instructional mastery presents difficulties, as teachers lack subject-matter expertise, impacting the effectiveness of the teaching-learning process and their confidence in instruction delivery. Additionally, adapting instructional methods to suit different subjects poses a challenge, with teachers often resorting to familiar teaching strategies due to a lack of mastery in alternative methods.

Despite these challenges, teachers demonstrate adaptability through various strategies. They seek assistance from colleagues specializing in specific subjects, utilize online resources for self-directed learning, and prioritize time management to efficiently prepare materials. Furthermore, teachers exhibit emotional adaptive attributes such as receptiveness, flexibility, perseverance, and determination, which contribute to their resilience in handling multiple subject areas. Their intrinsic qualities, coupled with professional experiences, enable them to navigate difficulties and maintain commitment to their roles as educators.

Caldis^[56] reported that initial teacher education programs do not adequately prepare individuals in teaching unaligned to their education. Additionally, teachers extensively discussed the occurrence of out-of-field teaching, attributing it to feelings of being “overwhelmed” and “underprepared”^[56]. This was expected as teaching outside areas of expertise brought complex challenges, and teachers express concern and apprehension when dealing with this situation^[12]. Teachers’ lack of confidence when teaching topics outside their scope of knowledge is manifested in different ways, such as when preparing lesson plans, choosing, or devising activities and analogies to aid students’ questions, choosing classroom activities, linking and applying various concepts and principles to everyday life situations, generating students’ interest and passion for the subject^[12,16,40,57].

Out-of-field teaching has become a phenomenon in the Philippines due to several underlying causes. Firstly, the inadequacy of initial teacher education programs plays a significant role. Literatures^[11,31,56] noted that education programs often fail to adequately prepare individuals for teaching subjects that are not aligned with their educational background. As a result, teachers may find themselves ill-equipped to handle the complexities associated with teaching outside their areas of expertise^[14,31]. The findings of this strengthened the understanding of out-of-field teaching, especially in the context of Philippine education system. For instance, teachers expressed their concern about preparation and mastery of the subjects. One teacher felt not competent enough saying, “...the quality of the teaching-learning process is not very effective because my knowledge of the subject is little” [Participant 1]. It was evident that teachers may lack the necessary

pedagogical skills, content knowledge, and instructional strategies required to effectively navigate diverse subject areas. This systemic inadequacy contributes to a pervasive sense of unpreparedness and incompetence among educators, as one teacher also admitted of feeling ill-equipped to facilitate the teaching-learning process due to limited subject mastery.

The pedagogical complexity imposes an additional burden on educators, necessitating a substantial investment of time and effort in reviewing and mastering diverse subject matter domains. One home economics teacher who also happened to teach Philosophy and Communication admitted that *“I am not so confident in teaching those lessons, most especially in the delivery of the lesson”* [Participant 5]. This lack of confidence not only compromises the effectiveness of instructional delivery but also erodes the quality of the learning experience for students. The dilution of instructional depth and efficacy across disparate subject matter domains undermines the coherence and comprehensiveness of the educational experience, hindering students' ability to engage deeply with the material and achieve meaningful learning outcomes. Consequently, the exigencies associated with teaching across multiple disciplines invariably dilute the depth and efficacy of instructional delivery, diminishing the overall quality of the learning experience for students.

Notably, although teachers experienced emotional, personal, and instructional concerns as implications of out-of-field teaching, there was room for educational and pedagogical integrations. It was known that teacher's emotional state and optimism in the face of challenging work conditions can be correlated to their self-efficacy and work engagement^[58-60]. This was where the opportunity sparked because not only teachers were seen expanding their horizons, but they also strive for development and learning.

In teaching World Religion, one teacher explained that *“...you are just like a student. If you do not read in advance, you are most likely not prepared in front”* [Participant 7]. This observation underscored the dynamic role that teachers must assume when confronted with teaching subjects beyond their specialized training. By acknowledging their own need for continuous learning and preparation, educators demonstrate a commitment to ensuring quality instruction despite the inherent challenges of out-of-field teaching. Stemming the concept of positive work goals and optimism, despite facing challenges, teachers demonstrated resilience and fortitude in navigating the complexities of teaching outside their areas of expertise. The challenges posed by out-of-field teaching presented an opportunity for educators to expand their horizons, cultivate resilience, and embrace ongoing development and learning. By leveraging their emotional resilience and optimism, teachers can enhance their self-efficacy and engagement in the face of challenging work conditions, ultimately fostering a culture of continuous improvement and innovation within the educational landscape.

In examining the phenomenon of out-of-field teaching within the context of the Philippine education systems, teachers handling multiple subject areas encounter profound difficulties in preparation, instructional mastery, and pedagogical adaptation. The lived experiences of these educators illuminate the existential struggle inherent in navigating the pedagogical complexities of teaching subjects beyond their specialized training.

Despite these challenges, teachers demonstrate remarkable adaptability and resilience in confronting the exigencies of out-of-field teaching. They employ various adaptive strategies, including seeking assistance from colleagues, utilizing online resources for self-directed learning, and prioritizing time management. Furthermore, educators exhibit emotional adaptive attributes such as receptiveness, flexibility, perseverance, and determination, which enable them to navigate difficulties and maintain commitment to their roles as educators.

This study opened new questions about some concepts relevant to out-of-field teaching becoming a detrimental phenomenon in education. For instance, is it possible to mediate the disruptive effects of out-of-field teaching through developing teacher's motivation? To what extent do positive work emotions have significant role in alleviating the impacts of misaligned expertise among teachers? Nevertheless, the lived experiences of teachers shed light on the existential dimensions of out-of-field teaching and underscore the transformative potential inherent in confronting and transcending these challenges within the educational landscape.

7. Conclusion

The findings of this study shed light on the multifaceted challenges faced by teachers handling multiple subject areas in the Philippine education system, particularly in the context of out-of-field teaching. These challenges encompass difficulties in preparation, instructional mastery, and pedagogical adaptation, which significantly impact the quality of instruction and learning outcomes. Despite these challenges, teachers demonstrate remarkable adaptability and resilience through various adaptive strategies and emotional attributes, enabling them to navigate the complexities of out-of-field teaching and maintain commitment to their roles as educators.

The systemic inadequacies within initial teacher education programs contribute to the pervasive phenomenon of out-of-field teaching, exacerbating feelings of unpreparedness and incompetence among educators. The pedagogical complexity inherent in teaching across disparate subject areas imposes an additional burden on teachers, further compromising instructional effectiveness and student learning experiences. However, amidst these challenges, there exist opportunities for educational and pedagogical integrations, as teachers strive for continuous learning and development to enhance their effectiveness in navigating out-of-field teaching.

Moving forward, this study raises important questions regarding the mediation of disruptive effects through teacher motivation and the role of positive work emotions in alleviating the impacts of misaligned expertise among teachers. By addressing these questions, future research can contribute to the development of strategies and interventions aimed at mitigating the challenges associated with out-of-field teaching and fostering a culture of continuous improvement and innovation within the educational landscape. The lived experiences of teachers underscore the transformative potential inherent in confronting and transcending these challenges, paving the way for enhanced instructional quality and student learning outcomes in the Philippine education system.

Conflict of interest

The authors declare no conflict of interest.

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