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Objectives of journal

1. To encourage and publish knowledge and useful opinions in any field of study
2. To support academicians and teachers in creating work beneficial to the academic community
3. To stimulate and support education at the university level

Policies of the journal :

The Interdisciplinary Research Review (IRR) publishes six issues per year. All submitted articles are subject to peer review, and must be approved by two experts in the relevant field prior to acceptance. Prior to review, all articles must pass a screening process which evaluates the articles' appropriateness for the journal, originality, proper formatting, and English proficiency. All material in each article that is not original must be properly referenced to the published literature. The editors reserve the right to modify articles in the interests of clarity and proper English usage. The opinions and views expressed in the journal are those of the authors of the respective articles and not those of the editors or publisher.

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Editorial Note

The Interdisciplinary Research Review (IRR) was established with academic cooperation by The Royal Society of Thailand Committee of Interdisciplinary Research and Development, Rajabhat University (Western Group), and Rajamangala University of Technology Rattanakosin. This Issue, Volume 20, No. 5, September – October 2025. This issue contains of three interesting articles in multidisciplinary fields: (1) Phytochemical Components of San Francisco (*Codiaeum variegatum*) Species, (2) A LENS INTO THE LIVED EXPERIENCES OF EDUCATIONALLY CHALLENGED PARENTS AS LEARNING FACILITATORS AMIDST HEALTH CRISIS IN FISHING COMMUNITIES IN THE PHILIPPINES, (3) The Waldenses: A Historical and Theological Examination of Early Christian Reformers and Their Legacy, (4) Pedagogical Opportunities and Challenges among English Teachers in the Contemporary Classroom.

The Editorial Board of the IRR encourages anyone to submit articles for evaluation and review. The processes of submission, review and publication of articles are described on the journal's website, <https://www.tci-thaijo.org/index.php/jtir>. The Editorial Board and Committees of the IRR sincerely thank all peer reviewers who have sacrificed their time to help us produce a better journal, and also wish to thank all teachers, researchers and other academicians for submitting their valuable research to this journal. Finally, we thank readers of our journal who help to spread the knowledge and benefits gained to others. With your feedback and suggestions, we will strive to improve the quality and relevance of the IRR.

Yongyudh Vajaradul
Editor
Interdisciplinary Research Review



Phytochemical Components of *San Francisco* (*Codiaeum variegatum*) Species

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Abstract

This study examined the phytochemical composition of five *Codiaeum variegatum* cultivars: ‘Victoria Gold Bell’, ‘Petra’, ‘Red Icton’, ‘Oakleaf’, and ‘Super California’ collected in Tuburan, Cebu, Philippines. Methanolic extracts from leaves and stems were analyzed using standard phytochemical screening to identify secondary metabolites. Results showed the presence of saponins, tannins, alkaloids, flavonoids, glycosides, phytosterols, and phenols, though their distribution varied by cultivar and plant part. These bioactive compounds are associated with antimicrobial, anticancer, antioxidant, antidiarrheal, and anthelmintic properties, suggesting that *C. variegatum* may serve as a potential source of therapeutic agents. The consistent detection of alkaloids, phenols, and flavonoids supports the traditional applications of the plant in treating gastrointestinal, dermatological, and infectious conditions. However, the toxic nature of some cultivars underscores the need for caution in promoting their use for household or medicinal purposes. While the findings provide baseline evidence of the biomedical potential of *C. variegatum*, further pharmacological and toxicological validation is essential to ensure safe application in pharmaceutical or biocontrol contexts.

Keywords: *Codiaeum variegatum*, Phytochemical components, Victoria Gold Bell, Petra Croton, Red Icton Croton, Oakleaf Croton, Croton Super California

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1. Introduction

Codiaeum variegatum (L.) Rumph. ex A. Juss., commonly known as garden croton, is an ornamental shrub belonging to the Euphorbiaceae family. Native to Southeast Asia and the Pacific Islands, it is widely cultivated in tropical and subtropical regions for its striking foliage. Beyond its decorative value, *C. variegatum* has long been utilized in traditional medicine across Asia, Africa, and the Caribbean, where decoctions and extracts from its roots, bark, and leaves have been applied to treat gastrointestinal disturbances, skin infections, ulcers, and parasitic diseases [1,2]. Phytochemical studies have confirmed the presence of diverse secondary metabolites, including alkaloids, tannins, saponins, flavonoids, glycosides, and phenols, many of which contribute to its reported pharmacological properties, such as antimicrobial, antidiarrheal, anticancer, antioxidant, and anthelmintic effects [3,4]. Several cultivars of *C. variegatum* are locally abundant in the Philippines and other tropical

regions, each exhibiting morphological variation and potentially distinct phytochemical profiles. *C. variegatum* ‘Victoria Gold Bell’, notable for its golden variegated leaves, has been reported to contain alkaloids, flavonoids, and phenolic compounds, which may account for its observed antimicrobial and antioxidant activities [5]. *C. variegatum* ‘Petra’, one of the most commercially popular cultivars in Southeast Asia, is particularly rich in flavonoids and tannins, compounds associated with potent antioxidant and cytotoxic properties, suggesting potential applications in cancer prevention and management of oxidative stress-related conditions [6]. Preparations are being prepared through boiling, fresh extracts, and powdered components from the plant sources. Such plant extracts in various formulations have been commonly referred to as galenicals. [7,8].

Other cultivars, such as *C. variegatum* ‘Red Icton’ and *C. variegatum* ‘Oakleaf’, have received comparatively less scientific attention but remain

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ethnomedicinally significant. *C. variegatum* ‘Red Iceton’, with its vibrant red and yellow foliage, has been observed to yield saponins and glycosides, which are traditionally linked to antidiarrheal and anthelmintic properties [9]. *C. variegatum* ‘Oakleaf’, named for its lobed, oak-like leaves, has shown preliminary evidence of alkaloid and tannin content, suggesting potential antimicrobial and wound-healing activities. However, more detailed phytochemical studies are lacking [10,11,12,13]. Meanwhile, *C. variegatum* ‘Super California’, another widely grown cultivar, has been associated with flavonoids, phenols, and phytosterols, which contribute to its antioxidant and anti-inflammatory properties, as well as possible roles in wound healing and gastrointestinal protection [14,15,16].

Despite these promising findings, research on *C. variegatum* remains fragmented and primarily descriptive, with few comparative analyses across multiple cultivars. Moreover, while the presence of beneficial phytochemicals underscores the plant's biomedical potential, reports also highlight its toxicity in specific contexts. Some cultivars of *C. variegatum* contain diterpenes and other compounds that can be toxic when ingested in large amounts, raising concerns about their safety for household medicinal use [17,18]. This dual character as both a potential therapeutic resource and a toxic ornamental plant underscores the importance of rigorous scientific evaluation [19,20,21]. This prompted the researcher to analyze the samples through phytochemical screening and categorize the chemical compounds according to their medicinal purposes [22,23,24,25]. The study may also contribute to public awareness of the unwanted effects of using these plant derivatives. Thus, a scientific investigation was conducted to determine the phytochemicals present in various varieties of the San Francisco plant, with the aim of enhancing its properties for future applications. This study provided baseline information for the development of a biopesticide for pest management or the creation of an extract for the treatment of illnesses.

This study aims to conduct a systematic phytochemical screening of five *C. variegatum* cultivars: ‘Victoria Gold Bell,’ ‘Petra,’ ‘Red Iceton,’ ‘Oakleaf,’ and ‘Super California’ collected in Tuburan, Cebu, Philippines. Specifically, it seeks to (1) identify the presence of key secondary metabolites, (2) compare variations in

phytochemical composition across leaves and stems, and (3) provide baseline data that may guide future research on the medicinal, pharmaceutical, and biocontrol potential of these widely cultivated plants. At the same time, it underscores the need for caution regarding their toxicity, ensuring that potential therapeutic applications are pursued within a framework of safety and scientific validation.

2. Materials and Methods

Plant Material. Five cultivars of *Codiaeum variegatum*: ‘Victoria Gold Bell,’ ‘Petra,’ ‘Red Iceton,’ ‘Oakleaf,’ and ‘Super California’ were used in the study. For each cultivar, three healthy plants were randomly selected from residential gardens in Tuburan, Cebu, Philippines. From each plant, approximately 200 g of fresh leaves and 100 g of stem bark were collected, resulting in a total of 1.5 kg of plant material across all samples [26]. The collected samples were cleaned with distilled water to remove dust and debris, then shade-dried at room temperature for seven days, and finally pulverized into a coarse powder for extraction.

Choice of Solvent. Methanol was chosen as the extraction solvent because of its high polarity and ability to dissolve a wide range of secondary metabolites, including alkaloids, tannins, flavonoids, glycosides, and phenolic compounds (Lefebvre et al., 2021). Methanol also penetrates plant tissues effectively, ensuring maximum recovery of bioactive constituents compared with non-polar solvents such as hexane or chloroform. Its frequent use in phytochemical studies allows for comparability with previously published work [27].

Chemicals and Reagents. The reagents and chemicals used in the phytochemical screening were of analytical grade and procured from standard suppliers. The following were employed in the qualitative assays: For alkaloids, Wagner’s reagent (iodine in potassium iodide solution); for saponins: Distilled water (for Froth and Foam tests), for tannins: Ferric chloride (5% FeCl_3 solution) and gelatin solution; for flavonoids: Shinoda test reagents (magnesium ribbon and concentrated hydrochloric acid), for glycosides (anthraquinone glycosides): Dilute hydrochloric acid, chloroform, and ammonium hydroxide (Modified Borntrager’s test), for phytosterols/terpenoids: Concentrated sulfuric acid and chloroform (Salkowski test) and for

phenols: Ferric chloride (5% FeCl_3 solution). All solutions were freshly prepared before analysis, and distilled water was used throughout the experiments.

Method of extraction. The powdered samples were subjected to cold maceration in methanol at a 1:10 (w/v) ratio for 72 hours at room temperature, with occasional shaking to enhance solvent penetration. After maceration, the extracts were filtered through Whatman No. 1 filter paper, and the solvent was removed using a rotary evaporator under reduced pressure at 40°C , concentrating the extract to dryness. The dried extracts were weighed to calculate the extraction yield [28]. Across the five cultivars, the average extraction yield was 8–12% (w/w) based on the dry weight of the plant material. Leaf extracts generally produced higher yields compared with stem extracts, consistent with the greater accumulation of secondary metabolites in photosynthetic tissues.

Phytochemical Screening. Phytochemical examinations were conducted for all extracts obtained from the *Codiaeum variegatum* plant using standard procedures, including the detection of saponins, tannins, alkaloids, flavonoids, glycosides, phytosterols, and phenols, as shown in Table 1. Each test was performed in triplicate to ensure consistency of results. The outcomes were observed as characteristic color changes or precipitate formation, confirming the presence or absence of specific phytochemical groups. Qualitative phytochemical screening was conducted on the methanolic extracts of the leaves and stems of *Codiaeum variegatum* cultivars using standard protocols. For each test, 2 mL of crude methanolic extract (equivalent to ~200 mg of dried material) was used. The tests and procedures were as follows:

Alkaloids (Wagner's test): To 2 mL of extract, 1 mL of Wagner's reagent (iodine in potassium iodide) was added. The formation of a reddish-brown precipitate indicated the presence of alkaloids.

Saponins. For the Froth test, 2 mL of extract was diluted with 5 mL of distilled water and shaken vigorously for 2 minutes. A stable froth persisting for ≥ 10 minutes

indicated saponins. For the Foam test, the same mixture was gently boiled for 5 minutes, cooled, and observed for foam stability.

Tannins (Ferric chloride and Gelatin tests): In the Ferric chloride test, 2 mL of extract was treated with 1 mL of 5% FeCl_3 solution. A blue-black or greenish coloration confirmed the presence of tannins. In the Gelatin test, 2 mL of extract was treated with a 1% gelatin solution containing NaCl; the presence of tannins was indicated by a white precipitate.

Flavonoids (Shinoda test): To 2 mL of extract, a small piece of magnesium ribbon was added, followed by 2–3 drops of concentrated HCl. The development of a pink or red coloration confirmed the presence of flavonoids.

Glycosides (Modified Borntrager's test for anthraquinone glycosides): About 2 mL of extract was hydrolyzed with 2 mL dilute HCl and heated for 5 minutes in a water bath. After cooling, the hydrolysate was extracted with 2 mL of chloroform, and the organic layer was treated with 1 mL of 10% ammonium hydroxide. A pink to red coloration in the alkaline layer confirmed the presence of anthraquinone glycosides.

Phytosterols/Terpenoids (Salkowski test): To 2 mL of extract, 2 mL of chloroform, and 2 mL of concentrated H_2SO_4 were carefully added along the test tube wall. The appearance of a reddish-brown color at the interface indicated the presence of terpenoids or phytosterols.

Phenols (Ferric chloride test): To 2 mL of extract, 2–3 drops of 5% FeCl_3 solution were added. The appearance of a deep blue, green, or black coloration indicated the presence of phenolic compounds.

3. Results and Discussion

Table 1. Standard characteristics of the phytochemical tests of the *Codiaeum variegatum* species

Phytochemicals	Test	Observation
Saponins	Froth	Appearance of a steady froth that lasts for more than 10 minutes.
Tannins	Gelatin	The formation of a white or cloudy precipitate
	FeCl ₃	A blue-black or greenish-black color of the extract.
Alkaloids	Wagner	A creamy white or yellowish precipitate.
Flavonoids	Shinoda	A yellow color shows the occurrence of flavones.
		An orange color shows the occurrence of flavanones.
		A red color shows the occurrence of flavonols.
Glycosides	Modified Borntrager's	A rose-pink color in the ammonical layer.
Phytosterols	Salowski	A red coloration at the interface of the two layers specifies the existence of terpenoids, while a yellow color specifies their absence.
Phenols	FeCl ₃	A positive reaction is shown by the appearance of a blue-black, green, or brownish color.

Table 2. Results of the photochemical screening of the five (5) species of San Francisco plants

Variable	Species									
	<i>Victoria Gold Bell</i>		<i>Petra Croton</i>		<i>Red Icton Croton</i>		<i>Oakleaf Croton</i>		<i>Croton Super California</i>	
	Leaves	Stem	Leaves	Stem	Leaves	Stem	Leaves	Stem	Leaves	Stem
Saponins	+	-	+	-	+	-	+	+	+	+
Tannins	-	-	+	-	+	+	+	-	+	+
Alkaloids	+	+	+	+	+	+	+	+	+	-
Flavonoids	+	+	+	-	+	+	+	+	+	-
Glycosides	+	-	+	+	+	-	+	-	+	+
Phenols	+	+	+	-	+	+	+	+	+	+

Legend: (+) = presence
 (-) = absence

Table 2 shows the phytochemical screening results of San Francisco plant extracts obtained from the leaves and stems of the five (5) species, such as Victoria Gold Bell, Petra Croton, Red Iceton Croton, Oakleaf Croton, and Croton Super California. These results reveal the presence of numerous bioactive secondary metabolites, which are primarily responsible for their therapeutic properties. The results and interpretations of the phytochemical assessments are presented as follows:

Saponins. A stable froth that persists for more than 10 minutes indicates the presence of saponins in all five species of San Francisco leaves. However, it is not observed in the stems of Victoria Gold Bell, Petra Croton, and Red Iceton Croton species.

Tannins. A white or cloudy precipitate was only noticeable on the five species of leaf samples of Petra Croton, Red Iceton Croton, Oakleaf Croton, and Croton Super California. Tannins are also evident in the stems of Red Iceton Croton and Croton Super California species.

Alkaloids. A creamy white or yellowish precipitate was observed in all five leaf samples. However, five extracts from stem samples showed alkaloid content, except for the Croton Super California species.

Flavonoids. An orange color was noted in all five species of San Francisco plants, indicating the presence of flavanones; however, it was noticeable that two out of the five stem samples, such as Petra Croton and Croton Super California, did not contain flavonoids.

Glycosides. The formation of rose-pink color was visible among the five leaf samples of San Francisco, but not evident in the three stem samples of Victoria Gold Bell, Red Iceton Croton, and Oakleaf Croton species.

Phenols. A blue-black was observed in all five San Francisco plant leaf samples; the same observation was made in the four stem samples, except for the Petra Croton species.

Percentage yield. The methanolic extraction of leaves and stems from five *Codiaeum variegatum* cultivars yielded extracts ranging between 8–12% (w/w) relative to the dry weight of plant material. Across all cultivars, leaf extracts consistently produced higher yields (10–12%) than stem extracts (8–9%), confirming that leaves contain a greater abundance of solvent-extractable secondary metabolites.

As presented in Table 3, the mechanism of action of the phytochemical composition of the five (5) species of San Francisco plants is shown. As presented, the San Francisco plant possesses various phytochemicals with everyday activity that can be used as an agent against diarrhea, an anti-cancer substance, an anthelmintic ingredient, and anti-microbial properties. Each phytochemical exhibits a distinct mechanism of action through specific biochemical interactions, enabling it to produce its pharmacological effects, which result in a particular response in the body. These phytochemicals include saponins, tannins, alkaloids, flavonoids, glycosides, phytosterols, and phenols.

Table 3. Mechanism of action of the phytochemicals existing in San Francisco plants [28].

Phytochemicals	Activity	Mechanism of Action
Saponins	Antidiarrheal	Inhibits the release of histamine in vitro.
	Anticancer	Holds qualities that permeabilize membranes.
	Anthelmintic	Generates document breakdown and vacuolization.
Tannins and Phenols	Antimicrobial	It combines with adhesins, slows enzymes, deprives substrates, creates complexes with cell walls, disrupts membranes, and forms complexes with metal ions.
	Antidiarrheal	The intestinal mucosa becomes more resilient, secretion is reduced, abnormal water transport across mucosal cells is inhibited, intestinal transit is slowed, and the binding of the heat-labile enterotoxin B subunit to GM1 is blocked, all

Phytochemicals	Activity	Mechanism of Action
	Anthelmintic	of which contribute to the suppression of diarrhea caused by heat-labile enterotoxins. Protein complexes that animals generate in the rumen to increase their intake of digestible proteins disrupt the production of energy by decoupling oxidative phosphorylation, which lowers G.I. energy metabolism.
Alkaloids	Antimicrobial	Disrupts the DNA and cell walls of parasites.
	Antidiarrheal	Reduces prostaglandin and autacoid secretion.
	Anthelmintic	Prohibit the passage of sucrose from the stomach into the small intestine, so limiting the support of glucose to the helminths; acts on the central nervous system (CNS), resulting in paralysis; and has anti-oxidation properties, which reduce nitrate formation, which is beneficial for protein synthesis.
Flavonoids	Antimicrobial	Complexed with the cell wall, it binds to adhesins.
	Antidiarrheal	Impedes prostaglandin and autacoids' secretion; prevents spasmogen-induced contractions; encourages the abnormal water transfer across the mucosal cells to return to normal; and GI release of acetylcholine is inhibited.
Glycosides	Antidiarrheal	Suppresses prostaglandin and autacoid secretion.
Phenols	Antimicrobial	Controlling microbial growth.

DISCUSSION

The present study revealed that the methanolic extracts of five *Codiaeum variegatum* cultivars: 'Victoria Gold Bell,' 'Petra,' 'Red Iceton,' 'Oakleaf,' and 'Super California' contain a diverse suite of secondary metabolites, including alkaloids, tannins, saponins, flavonoids, glycosides, phytosterols, and phenols. These phytochemicals were distributed variably across cultivars and plant parts, with leaves generally yielding higher concentrations than stems. The prominence of flavonoids, alkaloids, and phenolic compounds is particularly noteworthy given their well-documented roles in antimicrobial, antioxidant, and anticancer activities. The average extraction yield of 8–12% further underscores the efficiency of methanol as a solvent in recovering a broad spectrum of metabolites.

The findings are consistent with earlier phytochemical investigations of *C. variegatum*, which reported similar classes of compounds [29]. Specifically, the detection of flavonoids and tannins in 'Petra' and saponins in 'Red Iceton' supports

previous claims regarding the antioxidant and antidiarrheal potential of these varieties [30,31]. Likewise, the presence of phenolic constituents in 'Victoria Gold Bell' aligns with [32,33], who observed notable antimicrobial activity in related cultivars. Notably, our confirmation of anthraquinone glycosides through the Modified Borntrager test contributes to the limited literature on glycosidic compounds in *C. variegatum*. While earlier studies often focused on single cultivars or reported broad qualitative results, the present work provides comparative evidence across multiple varieties grown under the same environmental conditions.

The implications of these findings are twofold. First, the broad phytochemical repertoire detected across cultivars suggests promising biomedical potential, ranging from antioxidant and antimicrobial applications to possible roles in cancer prevention and gastrointestinal health. This corroborates the ethnomedicinal uses of *C. variegatum* in various cultures, where decoctions are employed for skin ailments, ulcers, and microbial infections. Second, the results emphasize the need

for caution, as some cultivars of *C. variegatum* are known to produce diterpenes and related compounds that are toxic if ingested in large quantities [34,35,36]. Thus, while the phytochemical richness supports further exploration as a source of therapeutic leads, safety assessments remain crucial before clinical or household use is recommended.

Future research should move beyond qualitative screening to quantitative profiling using chromatographic and spectroscopic techniques such as HPLC, LC–MS, and NMR to isolate and characterize specific compounds. Parallel biological assays, including antimicrobial, cytotoxic, antioxidant, and anthelmintic tests, are crucial for establishing direct correlations between chemical composition and pharmacological activity. Furthermore, toxicity studies are necessary to delineate safe dosage ranges and mitigate risks associated with ornamental or household applications. Comparative work across environments and seasons would also be valuable in determining the stability and variability of phytochemical content in these cultivars.

This study provides baseline evidence that *C. variegatum* cultivars grown in Cebu are rich in phytochemicals with potential biomedical applications. At the same time, it highlights the dual character of the species as both a potential source of natural therapeutic agents and a plant with inherent toxic risks. The findings lay the groundwork for more detailed pharmacological, toxicological, and translational studies to harness its potential responsibly.

CONCLUSION

This study was conducted to address the limited and fragmented knowledge on the phytochemical composition of *Codiaeum variegatum* cultivars, a species traditionally valued for its ornamental appeal and ethnomedicinal uses, yet often regarded with caution due to its reported toxicity. By screening the leaves and stems of five locally cultivated varieties: ‘Victoria Gold Bell,’ ‘Petra,’ ‘Red Iceton,’ ‘Oakleaf,’ and ‘Super California’—using methanolic extraction and standard qualitative assays, we confirmed the presence of key secondary metabolites, including alkaloids, tannins, saponins, flavonoids, glycosides, phytosterols, and phenols. Leaves generally exhibited richer phytochemical profiles than stems, with average extraction yields ranging from 8% to 12% (w/w).

These findings highlight the dual nature of *C. variegatum*: on the one hand, it is a potential source of compounds with antimicrobial, antioxidant, anticancer, and gastrointestinal therapeutic relevance; on the other hand, its known toxicity underscores the need for cautious use. The results provide baseline evidence that can guide further pharmacological, toxicological, and quantitative studies to validate its efficacy, ensure safety, and determine the most suitable applications, whether pharmaceutical, biocontrol, or community-based.

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A LENS INTO THE LIVED EXPERIENCES OF EDUCATIONALLY CHALLENGED PARENTS AS LEARNING FACILITATORS AMIDST HEALTH CRISIS IN FISHING COMMUNITIES IN THE PHILIPPINES

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Abstract

The COVID-19 pandemic has raised concerns and challenged the Philippine educational system, mainly the function of educationally challenged parents as learning facilitators in the fishing communities of Lagonoy. Hence, using the qualitative method following the phenomenological research design with the viewpoints of structural functionalism, this study aimed to explore the lived experiences of this social group. Four educationally challenged parents participated in and were interviewed. As a result, this study found that parents had challenged their prowess to teach their children. The teaching-learning process for them was dreadfully traumatizing, but they had coping mechanisms identified to overcome this situation. Hence, this undervalued group had alarming experiences that the authorities or policymakers need to attend to fully maximize their functions as part of the intertwined relationship in the country's educational system. The parents, not just the teachers, must have enough knowledge about the curriculum and teaching-learning know-how. This was so that they could perform their roles as the key mentor to their children at home in the earliest stage of developing their cognitive skills, during and even without health-related concerns.

Keywords: academically-challenged parents, coastal area, fishing communities, structural functionalism

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1. Introduction

Aside from the health sector, the COVID-19 crisis has adversely impacted education, notably all countries' educational systems worldwide [1]. The education department has taken aback and quickly shifted the strategy from traditional (face-to-face) to remote (online or modular) learning methods to respond to the situation's challenging demands. Learning loss, mental health concerns, school closures, learning resources [2], and changing the teaching-learning process to flexible learning modalities (synchronous and asynchronous) have all contested teachers' and parents' ability to provide consistently high-quality education, particularly at the grade or elementary level, in the face of the COVID-19 pandemic. This grade level is crucial to a child's cognitive development and is the foundation for all his mental skills.

Teachers in elementary and secondary schools in the Philippines have quadrupled their efforts and made the most of their limited resources to prepare and print modules and other learning materials for their students. On the other hand, learning at home is a huge challenge for both children and parents, particularly for educationally challenged parents with limited or insufficient knowledge of the curriculum, teaching-learning process, and approaches. However, the Department of Education sent learning facilitators— subject teachers who visit children at home to assist them in learning if they do not have anyone to facilitate learning. However, this strategy does not guarantee that the students will fully grasp or acquire the needed basic competencies to be developed, unlike those students with parents or siblings who can enable the teaching-learning process at home without the assistance of learning facilitators.

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This concern is also contemporary and essential for parents who live in coastal areas or fishing communities where most do not have a bachelor's degree or are no-read, no-write parents and do not have teaching-learning know-how. This social group belongs mostly to low-income families currently enduring relative poverty in the Philippines [3] and cannot afford to send their children to higher education. This is due to their social vulnerability and low literacy capacities, which hinder their ability to get suitable employment to support their family's day-to-day needs and learning opportunities.

As significant phenomena above, this study aimed to fill that gap by exploring the experiences and challenges of educationally challenged parents serving as learning facilitators to their children amidst this pandemic in fishing communities. This undertaking may provide significant findings that policymakers can use to formulate policies or interventions on how these social groups can cope with the challenging demands on education amidst the pandemic or in the event of a future health-related catastrophe in which the education sector will almost certainly be severely impacted.

This study was based on the theory of structural functionalism, also known as functionalism, which perceives society as a system including interconnected components designed to meet the biological and sociological needs of its members [4]. Structural functionalism is a sociological perspective that asserts that every institution, relationship, role, and set of norms within a society serves a purpose and is essential for the survival of both the other components and the society as a whole [5]. Herbert Spencer (1820–1903), an English philosopher and biologist, identified similarities between society and the human body in his writings, ultimately leading to functionalism's development. He contended that, similar to how diverse bodily functions, the numerous components of society collaborate to maintain societal function [4]. Spencer's reference to society encompasses social institutions and patterns of beliefs and behaviors that aim to fulfill societal needs. These include government, education, family, healthcare, religion, and the economy.

Emile Durkheim, a prominent sociologist from the early days, utilized Spencer's theory to elucidate the mechanisms by which civilizations undergo transformation and endure across time. Durkheim posited that society functions as an intricate system comprised of interconnected and interdependent components, which collaborate harmoniously to uphold stability [4]. Similar to this study's goal, the researcher viewed society as a complicated system that requires each individual to play their part efficiently in achieving sustainable development. This study examines the effects of the COVID-19 pandemic on parents who struggle academically as learning facilitators for their kids. It also looked at their intended functions within the educational system, where everyone neglected to offer empirical analysis that would have allowed policymakers to impose specific solutions and create programs to maintain the provision of high-quality education even outside the gamut of a pandemic-related health crisis.

1.1 Research Questions

This study explored the experiences of educationally challenged parents as learning facilitators for remote learning amidst the COVID-19 crisis in East Coastal Lagonoy, Camarines Sur, Philippines fishing communities. Specifically, it sought to address the following questions:

- a. What are the experiences of educationally challenged parents serving as learning facilitators for remote learning implemented by the Department of Education amidst this pandemic in the East Coast of Lagonoy, Camarines Sur, Philippines?
- b. How do the educationally challenged parents experience the difficulties brought about by the pandemic as learning facilitators, particularly in the teaching-learning process?
- c. How do parents deal with remote learning as learning facilitators in their children's learning process?

2. Methodology

The study was conducted in fishing communities on the East Coast of Lagonoy, such as San Sebastian and Cabotonan, Lagonoy, and Camarines Sur in the Philippines.

These communities are considered because of their geographical locations, which are vulnerable to natural hazards and climate-related threats [6] [7]. Also, health-related risks (such as the COVID-19 pandemic) [8] are a threat to these communities due to the tourist destinations (waterfalls and beaches) commonly visited by local and foreign tourists amidst this pandemic and a relatively high index of deprivation that affects the participants' social status quo, particularly in terms of attaining formal education [3]. Furthermore, Maddox [9] stated that artisanal fishing communities in developing countries such as the Philippines experience many of the same forms of educational disadvantage as other occupational groups, which influence the participant's literacy interests and levels. There are typical examples of low educational enrolment and attendance, poor teaching and learning, and enrolment and outcomes.

This study used a purposive sampling design that followed criterion sampling. In this technique, the participants were selected based on the predetermined criteria or characteristics set by the researcher. The four (4) participants were chosen based on the predetermined criteria [10] as the educationally challenged parents. They are the household heads (a male or female parent representing the head of the household) who do not have bachelor's degrees and have not completed elementary and secondary education. In other words, those who did not complete formal education and only attained the elementary level, or no-read, no-write. They are considered in this study because the researcher believed that, considering the country's educational system's current condition amidst the health crisis, their educational attainment (literacy capacity) defines their difficulties in fulfilling their responsibilities in assisting their children in becoming competent learning facilitators. Furthermore, prospective participants must have children currently enrolled in grade or elementary school level (Grades 1 to 6). No children who have completed secondary and tertiary levels since children who have completed secondary and tertiary education can assist in the teaching-learning process in any way because they already possess competencies that their parents may ask them to educate their younger siblings who are in primary school. Four (4) educationally challenged parents were

the study's actual number of participants. Only one parent per household was interviewed during the study.

The study employed a qualitative research method following a transcendental phenomenological research design. According to Moustakas [10], this phenomenological research design focuses less on the researcher's interpretations and more on describing the participants' experiences. It also highlights the concept of bracketing or *epoche* and participants' textural and structural descriptions towards constructing essence. This study attempts to disseminate and provide information about the experiences of educationally challenged parents (textural descriptions) and how they experienced problems as learning facilitators throughout the pandemic (structural descriptions), particularly in the teaching-learning process. Within the intricacies of the changed settings, the researcher aims to identify the essence of parental participation in remote learning as learning facilitators. The study used a face-to-face interview to collect essential data from the participants. The primary focus of the questions was the experiences and challenges acquired by the educationally challenged parents as learning facilitators amidst this pandemic. On the other hand, this study employed triangulation using a voice recorder, field observation, and documents to evaluate the reliability of the statements provided by the participants. To conduct a smooth flow of discussion, this study used the Bikol dialect as the primary mode of communication during the interview process.

The Moustakas approach [10] of transcendental phenomenological research was used to examine the data collected in this study, with the following steps: a) the researcher read over the data (interview transcription); b) the significant statements (key phrases), sentences, or quotes explain how the participants experienced the phenomenon, also known as the horizontalization stage; c) the researcher organized the meaning clusters from the identified significant statements into themes; d) the fourth and fifth phases used significant ideas and themes to write descriptions of what the participants experienced (textural description) and how they experienced (structural description) the phenomenon; e) the final stage was to write a composite description of the phenomenon that incorporates both the

textural and structural descriptions and conveys the essence. The study's validity was determined by conducting a literature search based on the phenomenological technique, bracketing past experiences, maintaining field notes, employing a sufficient sample, interviewing until data saturation, and identifying previous cases [10].

3. Results and Discussion

This section explained how participants expressed their experiences of educationally challenged parents as learning facilitators amidst the COVID-19 pandemic in

fishing communities. Using the Moustakas Approach [10], transcendental phenomenology explored each participant's individual lived experience, leading to an examination of essential themes related to the teaching-learning process of educationally challenged parents during the outbreak of the pandemic.

3.1. Significant Statements, Formulated Meaning, and Themes

This study presented 12 significant statements out of the verbatim statements of four (4) participants from the fishing communities of Lagonoy (Table 1).

Table 1. Significant statements and formulated meanings.

Significant Statements	Formulated Meanings
When President Duterte ordered the lockdown, I thought about how to teach my children reading and writing. I had a hard time teaching my kids because of this.	The teaching-learning process is also a traumatizing reality because not all parents have the capacity to deal with this kind of concern.
I have also seen firsthand how stubborn our kids can be when it comes to learning. Teaching writing and reading with comprehension is particularly challenging when we struggle with these skills.	The pandemic paves the way for parents to see how hard it is to teach their children, particularly the stubborn ones. However, they self-pitied because of their limited skills in the teaching-learning process.
Our children do not willingly ask us to teach them things like writing or reading during the teaching-learning process. They genuinely obeyed us when we gave them something to be terrified of, like "pamalo" (something like knout).	The teaching-learning process is also a traumatizing reality because not all parents have the capacity to deal with this kind of concern.
My kids do not genuinely understand what I am trying to teach them since I typically teach them the things I know, leaving out the ones I do not.	The pandemic paves the way for parents to see how hard it is to teach their children, particularly the stubborn ones. However, they self-pitied because of their limited skills in the teaching-learning process.
My personal experience taught me that teaching our children at home is preferable, even during the pandemic. But regrettably, I am forced to live with these difficult times because of the limitations. If our kids do not honestly want to study their lessons, they frequently get angry. I often reprimanded them.	This situation also teaches the parents to be patient enough to facilitate the teaching-learning process and the importance of the reinforcement theory of motivation (reward and punishment system). The educational parents have limited capacity to teach their children.
The topics that I find most challenging are Math, English, and Science. I require assistance understanding the context and even the English language.	Since educationally challenged parents have some limitations (mentally), their children usually take advantage of them. They do not respect and care for them.
	Educating these people is crucial to social change and understanding structural functionalism theory. It holds that everyone must play their part and cooperate to make a difference in society.

Table 1. Significant statements and formulated meanings.

Significant Statements	Formulated Meanings
When it comes to the teaching-learning process, if I do not comprehend the tasks or readings that my kids need to learn, I typically approach my nieces and nephews or other family relatives who are in high school or college (undergraduate or graduate) for assistance, provided they have their available time.	The educationally challenged parents are resourceful enough to provide their kids with a top-notch teaching-learning environment.
When my kids do not want to do their homework, I let them play instead. Because if I asked them to study, I am sure they would not do it and would not pay attention when I tried to teach them.	Educationally challenged parents need to learn about the specific teaching strategies that could help them improve their skills in teaching their children when needed.
Time is crucial while teaching our kids. There have been occasions when I have forgotten to teach my children due to the home tasks that require my attention, such as cooking and cleaning clothes.	Time management is essential in teaching their kids.
If my kids did not acquire something from me, it would break my heart. I understood that parents should be their first teachers before their children start schooling. I must first teach them the fundamentals of reading and writing. But I was unable to give it to them. It hurts.	The educationally challenged parents self-pitied, especially if they do not have something to teach their children during the teaching-learning process amidst the outbreak of the COVID-19 crisis.
Particularly when the Department of Education adopted the modular approach, parents learned from the lessons in the modules during the lockdown since they always take care of their children's activities, especially mothers. Not the kids in and of themselves.	Due to the limitations of their parent's ability to teach them, children do not develop their potential or talents. On the other hand, it is noted due to parents' desire to see their kids pass.
Because education is the only gift we can give our children, I always tell them to pay attention and take their studies seriously. Except for the knowledge you have already learned, we do not have any material things we could give you or carry with you throughout your life.	This represents the desire of parents who struggle academically to pass on their pieces of advice to their children through education. They believe that educating children is the key to their future success.

Table 2 presents the themes of significant statements shared by the participants.

Theme 1. Teaching-learning Process as a Challenging Aspect of Honing One's Cognitive Skills

According to the four participants' shared experiences, they struggled to teach their children because, according to Che, "*masakiton magtukdo nin aki, ang gusto siya na ang masunod*" (I had difficulties in teaching my kids because they want me to follow their wants). They have also witnessed directly how resistant to learning their children can be,

particularly given their difficulties with writing and reading. Baye stated, "*Dae ko man masyadong matukduan ang sakong aki sa pagbasa ta ako mismo dae ko naiintindihan ang sakong tigbabasa*" (I cannot teach my children to read with comprehension since even I cannot understand what I am reading). Beth acknowledged that sometimes parents must be grumpy with their kids to get them to obey them in writing and reading or even in doing their assignments. Chen said, "*tigpapakot ko sinda arog kan pamolo para magsunod sinda sako*" (I made them fearful of something, like "*pamalo*," so they would abide by us).

Additionally, Baye confessed that the way their kids behave at home makes it difficult to teach them. Thus, it implies that the mothers are now aware of how challenging it is to develop one's cognitive abilities, especially while acting as learning facilitators in the teaching-learning process. The teachers who are qualified and skillful in imparting and refining one's life may be shown the utmost respect due to their shared meanings or symbols.

Theme 2. Presence of Teacher-Figure

Baye and Beth from Cabotonan and San Sebastian confessed that a teacher *persona* must exist for their children to pay attention to their lessons during the teaching-learning process. They claim that “*mas maray pang nasa eskwelahan ang mga aki ko na tigtutukduhan kan mga maestra asin maestro ta nagtuturubod sinda, pero pag ako ang nagtutukdo sinda,*

madudunong asin mapagal pasunudon, minsan nauuyit pa sako” (It is better if my kids are in school teaching by their teachers because they used to obey their instructions, but if I asked them to do their lessons, it is very hard for me to get their interest. They are hard-headed, and sometimes they get mad at me.) It implies that teachers' presence and participation as their typical learning facilitators during the lockdown are crucial. Due to their limited time interacting with their teachers at school, their children's behavior in carrying out their lessons has changed. Since their children view them as their parents and not as the teachers who often assist them in their chores, such as writing and reading exercises, educationally challenged parents may also feel pressure. That is why they found it challenging to manage their children while giving classes at home without the presence of their teachers.

Table 2. Themes of significant statements and formulated meanings.

Theme Statements	Formulated Meanings
Theme 1. Teaching-Learning Process is a Challenging Aspect of Honing One's Cognitive Skills	<ul style="list-style-type: none"> • Hard time teaching my kids. • We have seen firsthand how stubborn our kids can be when it comes to learning. • It is particularly challenging to teach writing and reading when we struggle with these skills.
Theme 2. Presence of Teacher-Figure	<ul style="list-style-type: none"> • My kids do not follow my instructions because they want to follow their teachers. • Without the presence of the teacher, our children, most of the time, do not have an interest in doing their lessons.
Theme 3. Role of Parents in Educating their Children	<ul style="list-style-type: none"> • The parents must be aware of their role in their children's studies. • Parents are their children's first teachers before they go to school.
Theme 4. Working Together amidst COVID-19 Crisis	<ul style="list-style-type: none"> • Typically, I approach my nieces and nephews who are in high school or college for assistance, provided they have the time and space. • During the pandemic, no teachers have rendered voluntary services to teach our children due to the restrictions. However, some offered tutorial sessions with pay, but we (educationally challenged parents) refused to avail of the services because we did not have the budget.
Theme 5. Teaching-Learning Process is Dreadfully Traumatizing	<ul style="list-style-type: none"> • Teaching my kids that I know how incompetent I am is traumatizing and stressful. • I did not expect that this could happen; I have to manage my time for my role as mother, wife, and maid to my family. It is so stressful. • If my children have bulky and concerted tasks or modules to be done, I look like ‘praning’ (crazy). • We do not have enough budget to buy our kids learning tools like laptops and cellphones that they can use in their classes, among other issues that we are thinking of.

Theme 3. Role of Parents in Educating their Children

Bea remarked, “Ang mga magurang ang inot na dapat nagtutukdo o sinda ang inot na maistra asin maestro kan saindang mga aki bago pa maglaog sa eskwelahan” (The parents are their children’s first teachers before they attend school). According to Beth, “Iyan ang responsibilidad asin dapat na gibuhon kan magurang bago pa man maglaog sa klase an saiyang mga aki, dapat tukduan sinda kan mga bagay na dapat nindang manud-an muna sa harong” (It is the responsibility and role of the parents to teach their children first of the basic knowledge and skills at home). However, based on their own statements, these participants feel guilty about not providing their kids with the fundamental knowledge and skills while they are at home. They are well aware of their functions as parents, especially in the teaching-learning process, but they are conscious enough of their incapacity to assist their children. For them to underline their crucial function as components of the educational system, it is vital to discuss this kind of concern specifically at the national level. They must be prepared and a catalyst for social change that could help them better themselves and contribute to the advancement of society if they are to be effective and efficient learning facilitators during the lockdown or pandemic. Bea remarked, “Ang mga magurang ang inot na dapat nagtutukdo o sinda ang inot na maistra asin maestro kan saindang mga aki bago pa maglaog sa eskwelahan” (The parents are their children’s first teachers before they attend school). According to Beth, “Iyan ang responsibilidad asin dapat na gibuhon kan magurang bago pa man maglaog sa klase an saiyang mga aki, dapat tukduan sinda kan mga bagay na dapat nindang manud-an muna sa harong” (It is the responsibility and role of the parents to teach their children first of the basic knowledge and skills at home). However, based on their own statements, these participants feel guilty about not providing their kids with the fundamental knowledge and skills while they are at home. They are well aware of their functions as parents, especially in the teaching-learning process, but they are conscious enough of their incapacity to assist their children. For them to underline their crucial function as components of the educational system, it is vital

to discuss this kind of concern specifically at the national level. They must be prepared and a catalyst for social change that could help them better themselves and contribute to the advancement of society if they are to be effective and efficient learning facilitators during the lockdown or pandemic.

Theme 4. Working Together Amidst COVID-19 Crisis

According to the participants, we must work as one to combat the COVID-19 virus, and it is one of the most crucial lessons we must remember during or amid this crisis. In the education sector, working together emphasizes the camaraderie and harmonious relationships of everyone at the different levels of the system. Even parents of children with learning difficulties have their special ways of coping with this issue, so it is not just the teachers who have critical coping skills. The four participants reported that, when they have the time, they frequently ask their nieces and nephews (family relatives) who are high school or college students or graduates for help. The sad thing is that, according to Bea, “*kan panahon kan lockdown, mayo man maestra asin maestro ang nagvolunteer na magtukdo sa mga aki me, and ibang maestra naghapot kun gusto me daang magpatutor kan mga aki me, pero nagsayuma ako ta mayo man kaming pambayad*” (During the lockdown, no teachers have rendered voluntary services to teach their children due to the restrictions. However, some offered tutorial sessions with pay, but we (educationally challenged parents) refused to avail of the services because we needed more budget. This statement is regrettable since some teachers took advantage of the situation. To assume that it is evident that this type of family cannot afford that kind of amount to utilize the services being offered. “*linoton me na sana ang pagkakan me kan panahon na ito kaysa magbayad sa pagtutor sa mga aki me*” (We will provide first food to feed our children than to avail those services during that time)—Bea confessed. It is against their duty as government employees and public servants to provide private lessons to supplement their income during the lockdown. Public school teachers must render public education services. They must be unpaid (because the government pays them) and voluntary. However, throughout the

lockdown, the Department of Education created a hands-on teaching-learning environment, notably for developing reading and writing skills at the primary education level. To assist their students in their lessons, they employed learning facilitators. Additionally, they should continue to offer everyone a high-quality education. It is the perspective of structural functionalism to look into the society that works together or function well for the development and better future.

Theme 5. Teaching-Learning Process is Dreadfully Traumatizing

Since no one has economic and educational stability during the lockdown, mental health is a crucial issue that needs to be taken care of. Parents, teachers, children who are not in school, and students have argued that they lack the mental capacity to cope with the difficult repercussions of the COVID-19 outbreak. Parents who struggle academically are not free from such difficulties. According to the participants' statements, the lockdown and the teaching-learning environment's current status have been horrifying—the traumatizing reality for them. They contend that their incapacity contributes significantly to worry and despair. “Minsan, garo na akong praning ta dae ko na maintindihan ang gigibuhon ko lalo na kun sarabay-sabay na ang gibuhon kan mga aki ko, so paglaba, pagsapna tapos si mga panga-ngaipo pa ni agom.” (Sometimes, I am like “praning” (crazy) because I do not know where to start, especially if there are bulky and concerted activities in the module that I have to look into, plus the needs of my husband, the household chores, and so on.)—Beth said. As a result, the teaching-learning issues during the lockdown add to the pressure on parents who are not adequately qualified to teach their children. Because of the duties she needed to accomplish at home, such as household chores, they felt pressured or even melancholy at times. “Saro pa ang problema me ay ang mga gamit kan mga aki, dae man kami nin sapat na budget para magbakal nin cellphone o laptop para makagibo sinda kan mga dapat gibuhon sa

pagklase” (The fact that children need to use learning tools like laptops and cellphones for their classes yet we do not have the budget to buy them, this is another issue that we are considering)—Beth said. This concern is an alarming experience for the parents since it could have a multiplying effect on their roles as household heads, mothers to their kids, wives, and learning facilitators.

3.2 The Essence of the Study

The learning crisis in the Philippines grew worse during the pandemic, according to [11]. Based on the research, international tests conducted before the pandemic in 2019 revealed that about 80% of Filipino students lacked proficiency in reading, math, and science. The World Bank discovered that 91% of 10-year-old Filipino children (in Grades 4 and 5) lacked fundamental reading abilities in 2022. The parents' contribution to transmitting fundamental knowledge and skills is one of the factors influencing pupils' reading abilities in primary education. During the pandemic (lockdown), parents, particularly those who struggled with teaching skills, questioned their effectiveness in fostering their children's cognitive abilities as learning facilitators. One of the main essences of this discussion that may also be taken into consideration as factors that influence the worsened proficiency level of primary school students in the Philippines is the presence of teachers (teacher figures), parents' significant functions as learning facilitators, and the various levels of experiences shared by the participants (parents) that brought dreadful stress that led to their anxiousness and depression stages. These interpretations of the symbols offered by the participants regarding their experiences serving as learning facilitators amid the COVID-19 pandemic may provide pertinent information that parents can assist their kids in embedding into their system, especially in learning. The words or ideas of their parents, who have always been encouraging and inspiring, may help them achieve their life goals due to the possibility that these kids interpret or feel their parents' culturally or socially disparate views (symbolic interactionism) or experiences as belonging to undervalued groups [12].

Perhaps it is crucial to remember and strengthen parents' roles as part of their responsibilities and as their adaptive strategies for dealing with this scenario. In addition to supporting their families financially and serving as learning facilitators in a pandemic and everyday life, parents have a critical role in forming society, particularly in the early stages when children's cognitive skills are developing. The development of their children's mental, social, and physical skills must begin in the earliest years of life under the guidance of their parents, ensuring that their children's potential is fully developed. According to structural functionalism, human societies develop toward more differentiation as institutions become more specialized in their roles [13]. Each actor's functions must adjust to the circumstances in which they belong because the community has a diverse population and interconnected systems. To increase their specialized role as learning facilitators and aid their children in developing their cognitive and social skills, they must be adaptable and cooperative in implementing policies or programs that the education sector may provide. This is similar to the situation for parents of children with educational challenges; structural functionalists believe the aim of critical institutions, such as education, is to socialize children and teenagers [14] and see education as serving the needs of society by preparing students or later roles, or their functions, in the community [4].

4. Conclusions and Recommendations

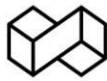
Based on the parents' experiences serving as learning facilitators for their children during the COVID-19 pandemic in fishing communities of Lagonoy in the Philippines. This study concluded that parents have alarming experiences that the relevant authorities or policymakers need to address to fully maximize their function as an integral part of the country's educational system. In fishing communities, parents must have sufficient knowledge of the curriculum and teaching-learning know-how, not only the teachers, so that they can fulfill their responsibility as their children's first teachers during the formative years of developing their cognitive abilities. This recommendation may be realized by producing manual kits for parents with the help

of the Department of Education, schools, and teachers. In a health-related catastrophe like the COVID-19 virus, where schools have been closed for years, the Department of Education and the Commission on Higher Education must collaborate to offer a unique or short educational program for educationally challenged parents or parents to improve their capacity as substitute learning facilitators. Additionally, it may be able to undertake quantitative research to investigate the effects of the participants' shared explorations of the meanings of the deteriorating state of the Philippine educational system because the parent factor is one of the important parts of a learner's cognitive skills development.

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The Waldenses: A Historical and Theological Examination of Early Christian Reformers and Their Legacy

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Abstract

This research examines the Waldenses, a group of early Christian reformers who emerged in the 12th century, through both historical and theological lenses. By investigating their origins, beliefs, and legacy, the study explores how the Waldenses influenced early Christian reform movements, particularly in the context of the pre-Reformation period. Key research questions include: What were the historical roots of the Waldensian movement? How did their theological beliefs challenge the dominant Catholic Church of the time? And what has been the lasting impact of their ideas on Christian thought and society?

The study utilizes a historical-theological methodology, combining an analysis of 3 primary sources (such as Waldensian writings and Church records), 9 secondary sources (scholarly studies on the movement's historical context and theological significance), and 1 lexical source. Major findings suggest that the Waldenses were pioneers in advocating for the accessibility of Scripture to laypeople, emphasizing the authority of the Bible over Church tradition, and promoting a simpler, more direct form of Christian worship. Their rejection of key Catholic doctrines, including papal authority and indulgences, led to severe persecution but also laid the groundwork for later Protestant Reformers.

The Waldenses' role in shaping the theological and social landscape of medieval Christianity is significant, as their ideas on Scripture, ecclesiastical structure, and religious freedom influenced the broader Reformation movement. Understanding their legacy provides valuable insights into the development of Christian reform and its enduring theological and social impact, especially in the areas of religious liberty and lay participation in faith.

Keywords: Waldenses, Pre-Reformation, Medieval Church, Religious Liberty, Historical-Theological Approach

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1. Introduction

The Waldenses were a Christian reform movement that emerged in the 12th century, predicting the Protestant Reformation in several countries [1]. Originating in southern France and spreading across Europe, they challenged the teachings and authority of the Roman Catholic Church, advocating for a return to simple, Scripture-based faith. Despite severe persecution, they promoted key ideas such as making the Bible accessible to all, rejecting papal authority, and valuing personal faith over ritual. While the Reformation led by Luther,

Calvin, and Zwingli is often regarded as the defining era of Christian reform, the Waldenses laid theological and social foundations that influenced it [2]. Their emphasis on Scripture, opposition to certain Catholic doctrines, and advocacy for lay involvement established them as an early force for change [3]. Studying the Waldenses reveals their vital role in shaping medieval religious thought and prefiguring later reform, offering insight into their enduring impact on Christian theology and practice [4].

1.1. Research Questions

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This study is organized around several key research questions that aim to provide a thorough understanding of the Waldensian movement, its theological positions, and its lasting influence on Christian thought:

1. What were the historical roots of the Waldensian movement?
2. How did their theological beliefs challenge the Catholic Church?
3. What has been the lasting impact of Waldensian ideas on Christian thought and society?

1.2. Significance of the Study

The Waldensians played a key role in Christian history, particularly before the Reformation. Although often overshadowed by reformers such as Luther and Calvin, their theological and social contributions laid the groundwork for the Protestant movement. Examining their origins and beliefs provides valuable insight into the development of Christian reform and the ideas that prepared the way for the Reformation.

1.3. Data & Methodology

This study examines the Waldensian movement using a historical-theological approach, combining historical analysis and theological evaluation to explore its origins, beliefs, and influence. Primary sources, including Waldensian writings, treatises, sermons, and hymns reveal their emphasis on Scripture, simple worship, lay participation, and rejection of certain Catholic doctrines. Church records, such as papal bulls, synodal decrees, and inquisitorial documents, show official opposition and persecution, including their condemnation at the Synod of Verona in 1184. Secondary sources situate the Waldenses within medieval Christianity and trace their impact on later Protestant reform. Together, these sources highlight their role as early reformers shaping Christian thought.

1.4. Analytical Framework

This study employs a historical-theological approach to examine the Waldensian movement's origins, beliefs, and influence on Christianity through a historical-theological approach, integrating historical analysis and theological examination to explore the origins, beliefs, and influence on Christianity. By considering both the socio-political context and theological ideas, this method provides a comprehensive view of the movement's significance.

2. The Waldenses in the Pre-Reformation Period

Before the Protestant Reformation, the Waldenses stood as faithful witnesses to biblical truth amid widespread apostasy [1]. Originating in the 12th century under Peter Waldo of Lyon, they rejected papal authority and emphasized the Bible as the sole rule of faith. Persecuted severely for their beliefs, they fled to the mountain valleys of northern Italy and southern France, preserving and sharing Scripture in the common tongue. Their simple, Christ-centered lives, lay preaching, and missionary zeal kept alive the light of the gospel during the Dark Ages, preparing the way for the greater Reformation that would soon follow [3].

2.1 Historical Background of the Waldense

The Waldensian movement began in the 12th century, founded by Peter Waldo (c. 1140–1205), a merchant who renounced his wealth after a spiritual awakening [11]. Influenced by asceticism and the Bible's teachings, Waldo rejected the authority of the Catholic Church, veneration of saints, and clergy as intermediaries, insisting all believers could read and interpret Scripture [11]. He translated the Bible into the vernacular and preached spiritual reform, emphasizing poverty, piety, and direct access to God. Despite persecution and condemnation as heretics [12], the Waldenses spread across Europe, maintaining strict conduct, rejecting

materialism, and promoting evangelism, laying the foundation for Christian reform [13].

2.2 Context of Medieval Christianity

In 12th-century Europe, the Catholic Church exerted immense religious and political power, dominating spiritual and secular life [8]. Under leaders like Pope Innocent III, the papacy asserted supremacy over rulers, controlled vast lands, collected tithes, and monopolized religious practices. Clergy enjoyed wealth while much of the population lived in poverty, fueling discontent over corruption, indulgences, relics, and clerical luxury [3]. The Bible, available only in Latin, reinforced clergy authority. The Waldenses opposed this, translating Scripture into vernacular languages and promoting personal access. Their advocacy for a simpler, Scripture-based Christianity resonated with the poor and marginalized [12].

2.3 Early Persecution

The Catholic Church condemned and persecuted the Waldenses, viewed them as a threat to religious and social order. Rejecting papal authority, Catholic doctrines, and the sacramental system, the Waldenses emphasized sola scriptura, directly opposing Church teaching [13]. In 1184, the Synod of Verona and Pope Lucius III pronounced them heretical, leading to excommunication and violent suppression. Waldensian communities, especially in the Piedmont valleys, suffered raids, forced conversions, and massacres, including the 1655 “Piedmont Easter” [7]. Despite persecution, they maintained their faith, influencing Protestant reform. Church opposition was both theological and political, aimed at preserving authority and suppressing reformist ideas.

2.4 Theological Beliefs of the Waldenses

The theological beliefs of the Waldenses were rooted in a desire to return to what they considered the pure, unadulterated

teachings of the early Christian Church. Their ideas, which challenged the prevailing doctrines and practices of the Catholic Church, made them one of the most important reformist movements in medieval Christianity. Three central tenets of their theology emphasized the accessibility of Scripture, simplicity in worship, and the rejection of Catholic doctrines [11]. These beliefs were crucial to their identity as a reforming Christian group, and they laid the groundwork for many of the ideas that would later become central to the Protestant Reformation.

3. Contribution to Religious Liberty, Lay Participation, and Theological Reform

The Waldenses contributed significantly to Christian history by advocating religious liberty and lay participation. Rejecting the authority of the Catholic Church, they taught that all believers could read and interpret Scripture for themselves, emphasizing personal faith over ritual [1]. They opposed the sacramental system, promoting egalitarian worship and direct access to God. Despite persecution, they upheld these convictions, influencing the Reformation. Their emphasis on sola scriptura and individual faith shaped Protestant reformers like Martin Luther, helping to establish a Bible-centered, believer-driven Christianity and leaving an enduring legacy in Protestant theology and church governance [10].

3.1. Accessibility of Scripture

The Waldenses believed all Christians, regardless of status, should have access to the Bible in their own language [5]. When Scripture was restricted to Latin clergy, Peter Waldo promoted its translation into the vernacular so laypeople could read and interpret it themselves. Upholding sola scriptura, they viewed the Bible as the ultimate authority over Church tradition and papal decrees. By challenging the Church’s interpretive monopoly, the Waldenses encouraged personal engagement with God’s Word. Their advocacy

for vernacular Scripture enhanced biblical literacy across Europe, influenced the Protestant Reformation, and underpinned their rejection of the Church's hierarchy and ritualistic practices [5].

3.2 Simplicity in Worship

The Waldenses emphasized simplicity in worship, rejecting the elaborate rituals and hierarchical structure of the Catholic Church [11]. They believed true faith was best expressed through a direct, personal connection with God rather than ceremonies performed by clergy. This included rejecting the veneration of saints, relics, and elaborate Eucharistic rites, emphasizing instead on prayer, Bible reading, and communal devotion. Worship was characterized by egalitarianism, allowing all believers, men and women, to participate fully, reflecting their belief in the priesthood of all Christians [8]. By opposing clericalism and emphasizing personal access to God, the Waldenses sought an authentic, material-free expression of faith. Their approach influenced later Protestant reformers, promoting a simpler, more personal, and communal form of worship centered on Scripture and individual devotion rather than Church authority [2].

3.3 Rejection of Catholic Doctrines

The Waldenses rejected key Catholic doctrines, most notably papal authority. While the pope claimed supreme spiritual and political power, the Waldenses asserted Christ alone as head of the Church and upheld the equality of all believers [3]. They also opposed indulgences, considering the sale of forgiveness as corrupt, and emphasized that salvation was a personal matter between God and the individual [12]. Additionally, they rejected the Church's hierarchical structure, insisting that every Christian could read and interpret the Bible without clergy mediation [12]. These beliefs placed them at odds with the Catholic Church and led to persecution. Yet the Waldenses' emphasis on Scripture, personal faith, and equality laid the groundwork for Protestant

Reformers like Luther and Calvin, influencing key Reformation principles [3].

4. Pre-Reformation Influence and Impact

The Waldenses significantly influenced pre-Reformation Christian reform by challenging the Catholic Church's authority over Scripture, hierarchy, and practices [1]. Their commitment to sola scriptura and rejection of Church tradition laid the foundation for later movements, particularly in the 16th century. By advocating for vernacular translations of the Bible, they promoted biblical literacy among laypeople, influencing reformers such as Martin Luther [3]. They also opposed indulgences, the veneration of saints, and the Church's hierarchical structure, emphasizing a personal relationship with God rather than mediation through clergy or sacraments [12]. These critiques were both theological and social, challenging the Church's control over spiritual and temporal life. The Waldenses' focus on individual access to Scripture anticipated the Reformation's principles of the priesthood of all believers and personal interpretation of God's Word.

4.1 Persecution and Survival

The Waldenses endured severe persecution for challenging the Catholic Church. In 1184, Pope Lucius III formally condemned them as heretics at the Synod of Verona [12]. Church authorities sought to suppress the movement through excommunication, property confiscation, and violence, forcing Waldensian communities into the remote Piedmont valleys. Despite massacres and campaigns against them, they preserved their faith, practices, and education, demonstrating remarkable resilience [3]. Their survival highlighted the limits of Church authority and ensured the continuity of their theological ideas. By maintaining their beliefs under oppression, the Waldenses laid a foundation that would later influence the

Protestant Reformation and the emphasis on Scripture-based, personal faith.

4.2 Legacy and Influence on Later Reformers

The Waldenses significantly influenced later reformers such as Martin Luther and John Wycliffe. Their emphasis on Scripture as the ultimate authority, rejection of the papacy, and advocacy for simpler, direct worship anticipated key Reformation principles [2]. Luther's sola scriptura and critique of Church hierarchy resonated with Waldensian concerns, while Wycliffe's push to translate the Bible into English and challenge papal authority reflected similar priorities [8]. The Waldenses also promoted lay participation, religious liberty, and resilience in the face of persecution, setting an enduring example for future reform movements. Their theological ideas formed part of a long tradition of dissent that challenged Church authority, ultimately shaping the development of Protestant theology and practice for centuries to come.

5. Development of Christian Reform

The Waldenses played a significant role in shaping Christian reform movements by emphasizing Scripture as the ultimate authority, challenging the Catholic Church's hierarchy and traditions [3]. Advocating sola scriptura, they rejected papal authority, indulgences, and ritualistic practices, promoting simpler, more direct worship and personal devotion. Their principles foreshadowed the Protestant Reformation and influenced reformers like Martin Luther and John Calvin, who sought a purer Christianity free from Church excesses [1]. By prioritizing individual engagement with Scripture and the autonomy of local communities, the Waldenses helped lay the foundation for modern Christian thought, shaping values central to Protestant theology and practice.

5.1 Religious Liberty and Lay Participation

The Waldenses' legacy prominently includes religious liberty and lay participation in worship and theological education. They insisted that the Bible be accessible to all believers, not only clergy or the educated elite by championing translations into vernacular languages so every Christian could read and interpret Scripture [3]. This emphasis on individual engagement challenged the Catholic Church's monopoly on religious knowledge and paved the way for direct personal access to God's Word. Their advocacy influenced later reformers, such as Martin Luther, and anticipated modern Christian principles of freedom of conscience, religious expression, and the right of all believers to engage directly with Scripture [3].

5.2 Waldensian Influence in Modern Christianity

The Waldenses have profoundly influenced modern Christianity, especially Protestantism. Their emphasis on Scripture's authority, religious liberty, and lay participation shaped key Reformation principles, including sola scriptura, rejection of ecclesiastical hierarchy, and equality of believers [10]. Persecuted for their faith, they championed the right to practice religion freely, influencing contemporary discussions on religious freedom and human rights [6]. Their advocacy for lay involvement in worship and theology inspired modern Christian education and active participation in church leadership. Additionally, their focus on simplicity in worship, personal devotion, and rejection of ornate rituals foreshadowed practices now central to many evangelical and Reformed Protestant traditions.

6. Conclusion

The Waldenses were early Christian reformers whose emphasis on sola scriptura, accessible Scripture, and rejection of papal authority and indulgences challenged the Catholic Church and laid the groundwork for the Protestant Reformation. Their advocacy for

simpler worship, lay participation, and the authority of Scripture influenced reformers like Martin Luther and John Wycliffe, shaping Protestant theology and church structures. Persecuted for their beliefs, the Waldenses' commitment to religious freedom and ecclesiastical reform helped establish principles of individual conscience and lay involvement that resonate in modern Christianity. Studying them highlights their pivotal role in advancing theological ideas that transformed the Church.

6.1 Implications for Contemporary Life, Religion, and Education

The findings of this study extend beyond historical understanding and have practical implications for life, religious experience, and education in the modern era. The Waldenses' commitment to Scripture, personal faith, and moral integrity offers a model for cultivating ethical values such as honesty, humility, and perseverance amid societal complexity. Their emphasis on personal access to the Bible and lay participation reinforces the importance of individual spiritual responsibility and freedom of conscience—principles that continue to inspire faith communities today.

In terms of education, the Waldensian legacy underscores the transformative power of literacy and learning in shaping faith and society. Their early efforts to translate Scripture into vernacular languages remind modern educators of the need to make knowledge accessible to all, promoting critical thinking, moral reasoning, and spiritual growth. For religious institutions, their example calls for renewed simplicity, inclusivity, and authenticity in worship and service, aligning faith practice with compassion, justice, and personal conviction. Thus, the Waldenses' historical experience contributes enduring lessons that can enrich moral values, deepen religious life, and inspire educational renewal in the present age.

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Pedagogical Opportunities and Challenges among English Teachers in the Contemporary Classroom

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Abstract

The advent of educational opportunities and challenges, as concomitants of technological evolution and generational emergence, has surfaced. This has revolutionized the teaching-learning process for Gen Z students nowadays. Hence, this study investigates the pedagogical and student-centered opportunities and challenges that English teachers encounter when teaching Gen Z students. The study employed a descriptive quantitative design using survey questionnaires to elicit the requisite insights of 31 teachers and 229 Gen Z students. The study revealed that English teachers perceive both opportunities and challenges in integrating technology, employing teaching strategies, and managing classroom behavior, while also acknowledging the need for strategic interventions such as targeted professional development, streamlined resources, and institutional support. The study also found that the use of innovative educational tools and methods enhances Gen Z students' attention, retention, and interest in learning. It further highlighted that collaboration with diverse individuals yields better learning outcomes and competencies. Thus, there is a need for educators to integrate technology, adapt to innovative teaching-learning processes, employ the student-centered approach with ample time allocation, and align competencies to the current demands of industry and society.

Keywords: contemporary classroom, English language teaching, Gen Z learners, pedagogical opportunities, technology integration

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1. Introduction

The educational landscape of today has recognized the need to meet the demands of a rapidly evolving and increasingly globalized world. Shaped by technological innovations, diverse learner needs, and shifting workforce demands, contemporary classrooms no longer resemble traditional ones. Student-centered approach, which encourages autonomy, collaboration, and innovation, has replaced the memorization and passive reception of information typical in traditional learning environments. English language instruction, in particular, has gained even greater prominence in its role in communication and intercultural competence, significantly preparing learners to navigate a globalized workforce. Technological advancements have considerably accompanied the rise of English and revolutionized the way instruction is delivered. To enhance language practice, educators and policymakers have embraced a variety of technological tools available that support language teaching and learning (Alda, 2018). Nowadays, language classrooms have become more dynamic and multifaceted, accommodating the needs of a growing diversity of learners who dwell in them. Amid global

development, the advent of the internet in 1995 gave birth to a new generation (Demir & Sönmez, 2021). The rise of Generation Z, commonly referred to as digital natives, has further added complexities in the educational landscape. Born into the digital age, they are a generation who “live and breathe” technology (Cilliers, 2017) and therefore demand a more technology-driven and global language classroom (Sedanza et al., 2023). In these circumstances, English teachers face pedagogical opportunities and challenges to adapt to accommodate these diverse demands. They further emphasized the need for teachers to reevaluate their instruction in order to better support Gen Z learners and to align with 21st-century learning approaches.

In response to these nuances, educators, including English teachers, recognize the need to balance innovation and meet the changing needs of Gen Z learners at the same time. English teachers are now making the most of academic opportunities to cater to the needs of this tech-savvy generation. The rise of mobile-assisted language learning, or MALL, for instance, offers a promising opportunity for English teachers to engage learners and promote active learning. This approach makes use of

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technology in providing students a wide array of language content in a variety of forms, thereby fostering 21st-century skills (Alda, 2018). However, there have also been a considerable number of challenges that teachers face, such as generational differences in terms of values, expectations, and preferences. There exists a generational gap in some aspects of language learning (Demir & Sonmez, 2021). While teacher participants found their language curriculum successful, student participants found it outdated and ineffective.

In further identifying the pedagogical opportunities and challenges that English teachers face in the contemporary classroom, it is crucial to address significant research gaps to enhance teaching practices and learning outcomes. While there is ample research on technology integration in the modern classroom, there is a lack of empirical studies that focus on teaching strategies specifically tailored to Gen Z learners in language classrooms. Many studies explore classroom management practices; however, there is limited focus on the challenges that English teachers face in managing a diverse classroom of Gen Z learners. This includes an insufficient exploration addressing how teachers can respond to learners' engagement levels, unique learning styles and preferences, and digital habits. Sedanza et al., (2023) also highlight a lack of research on teachers' practices and beliefs on language teaching from the Gen Z perspective. Thus, this study seeks to provide insights to teachers, school administrators, and policymakers on how instructional practices can be optimized to enhance engagement and learning outcomes of this new cohort of students.

1.1 Problem Objectives

This study aims to investigate the pedagogical and student-centered opportunities and challenges that English teachers encounter when teaching Gen Z students and their implications for classroom teaching. It determines the following:

1.1.1 The teachers' pedagogical opportunities and challenges in terms of: technology integration; teaching strategies; and classroom management strategies.

1.1.2. The student-centric opportunities and challenges in terms of: learning styles and

preferences; engagement and motivation; and cultural and linguistic diversity.

2. Methodology

2.1 Research Design

This study employed a descriptive quantitative research design to gather specific and measurable insights into the research problem. It is appropriate for quantifying and describing specific factors in teaching and learning without delving deeper into underlying causes. It enables researchers to gather quantitative data through structured instruments, which may be statistically examined to discern patterns and trends.

2.2. Research Instrument

This study utilized validated four-point Likert scale survey questionnaires as the main data-gathering tool. The questionnaires vary according to two groups of participants - teachers and students. The questionnaire for teachers is composed of three parameters under study: technology integration, teaching strategies, and classroom management strategies. Meanwhile, the questionnaire for students also has three parameters: learning styles and preferences, engagement and motivation, and cultural and linguistic diversity.

2.3 Research Participants

The sample size of the participants (229 students and 31 English teachers) was identified using the Cochran formula. It is employed to determine the optimal sample size based on the estimated proportion of the attribute in the population, the desired level of precision, and the desired confidence level. The inclusion criteria for the teacher participants include: English teachers who have a bachelor's degree in secondary education majoring in English, have at least two years of teaching experience, and are currently teaching English subjects to Gen Z students. On the other hand, Gen Z students (born in 1997-2012) were considered eligible for participation, especially those in junior high school.

2.4 Research Procedures and Analysis

After the data collection, the results were compiled, tallied, and tabulated for analysis and interpretation. For the statistical treatment and interpretation of data, a simple statistical tool, particularly, weighted mean, was utilized for the descriptive analysis of data.

3. Results and Discussion

This study explores the opportunities and challenges of English teachers in teaching Gen Z students. Specifically, it looks into the pedagogical

aspects, including technology integration, teaching strategies, and classroom management strategies; as well as the student-centric aspects, such as learning styles and preferences, engagement and motivation, and cultural and linguistic diversity. By identifying these opportunities and challenges, this study seeks to determine its implications for classroom teaching.

Table 1 Technology Integration

Statements	Weighted Mean	Description
1. I believe technology integration creates visually appealing learning experiences that help enhance student retention.	1.42	Strongly Agree
2. I believe technology integration increases Gen Z students' engagement and participation in classes.	1.52	Strongly Agree
3. I find that technology integration improves Gen Z students' overall language skills.	1.78	Agree
4. I believe technology integration covers more curriculum content effectively compared to traditional methods.	1.65	Strongly Agree
5. I believe technology integration develops Gen Z students' critical thinking, creativity, communication, and collaboration.	1.55	Strongly Agree
6. I find it difficult to stay updated on new digital tools...	2.48	Agree
7. I struggle in managing Gen Z students' use of technology.	2.42	Agree
8. I find that technology integration requires significant preparation time, which is challenging to manage	2.19	Agree
9. I have difficulty handling technical issues that disrupt the lesson flow.	2.68	Disagree
10. I feel there is a lack of adequate training or professional development opportunities on technology integration in English language instruction.	1.94	Agree
<i>Sub-Weighted Mean</i>	<i>1.96</i>	<i>Agree</i>

Legend: 1.00–1.75 = Strongly Agree; 1.76–2.50 = Agree; 2.51–3.25 = Disagree; 3.26–4.00 = Strongly Disagree

Table 1 shows that English teachers perceive both opportunities and challenges in leveraging technology tools in their teaching practice, with an overall mean of 1.96, categorized as “agree.” While teachers recognize the value of technology, addressing its drawbacks is essential for the effectiveness of its utilization in the classroom.

The teacher respondents strongly agreed that technology enhances Gen Z students' retention (1.42), engagement, and participation (1.52). This may be attributed to technology's transformational potential to personalize learning experiences that cater to students' unique interests, abilities, and needs (Gyawali & Mehndroo, 2024). Moreover, the respondents held positive perceptions on how technology integration promotes essential skills such as critical thinking, creativity, communication, and collaboration (1.55); and improves overall language skills (1.78). Technology provides access to authentic English learning materials, such as videos, podcasts, news articles, interactive multimedia content, etc., which expose students to genuine use of language. Eslit (2023) thereby emphasized that students' exposure to these materials through technology significantly improves their overall language competence and other critical skills. In addition, teacher respondents strongly agreed that technology integration enables more effective curriculum coverage compared to traditional methods (1.65). It grants the availability of meaningful features that enable students to have new experiences that cannot be found in conventional education (Rintaningrum, 2022). Shofiyyah et al. (2024) also highlighted the importance of regular evaluation of the effectiveness of the curriculum and making the necessary adjustments to keep it relevant and effective in addressing present developments. Overall, these identified opportunities reveal how technology empowers English teachers with innovative ways to enhance instruction, making it a valuable asset to foster Gen Z learners' academic and holistic development.

Table 2 Teaching Strategies

Statements	Weighted Mean	Description
1. I am able to provide differentiated, personalized, and self-directed learning experiences for Gen Z students...	1.87	Agree
2. I am able to deliver bite-sized lessons instead of traditional, lengthy lectures and text-heavy materials...	1.74	Strongly Agree
3. I am able to use collaborative learning strategies fostering engagement and teamwork.	1.53	Strongly Agree
4. I am able to integrate inquiry-based, real-world, authentic, and practical	1.68	Strongly Agree

Statements	Weighted Mean	Description
applications, making lessons more relevant for Gen Z students.		
5. I am able to incorporate multimedia and online game-based learning platforms to enhance student engagement and motivation.	1.61	Strongly Agree
6. I find it challenging to balance teacher-centered instruction and student-led approaches during complex lessons, as this is time-....	2.26	Agree
7. I find it difficult to enhance Gen Z students' critical thinking as they often rely too heavily on technology (e.g., use of AI tools) for answers.	2.16	Agree
8. I find that integrating technology tools sometimes leads to superficial engagement, distracting Gen Z students from the focus of...	2.23	Agree
9. I find student-centered approaches challenging due to the extensive preparation required, large class sizes, diverse learning styles...	2.16	Agree
10. I find it difficult to provide feedback and continuous assessment of individual learning progress in a timely manner in student-centered...	2.48	Agree
<i>Sub-weighted Mean</i>	<i>1.97</i>	<i>Agree</i>

The contemporary classrooms have shifted from traditional, lecture-heavy methods to approaches that are student-centered. Generation Z students are more likely to thrive in environments that are tech-driven, visual, interactive, and engaging. Teachers are constantly exploring what motivates Gen Z students and how to motivate them, however, these students often find motivation when they perceive value and relevance in what they are learning (Afshar et al., 2019). Table 2 shows that English teachers perceived both opportunities and challenges in employing teaching strategies to cater to Gen Z students, with an overall mean of 1.97, categorized as "agree." Teachers recognize the potential of adapting their teaching strategies to engage learners, while also seeing the need to address the barriers for its effective implementation.

The teacher respondents strongly agreed that they effectively use collaborative learning strategies, such as peer-to-peer activities and project-based tasks (1.53), while also incorporating multimedia tools and game-based platforms to enhance engagement and motivation (1.61). They also reported success in integrating inquiry-based,

real-world applications (1.68) and delivering bite-sized lessons that cater to Gen Z's preference for relevant, practical, and focused content (1.74). Shofiyyah et al. (2024) concurred on the effectiveness of real-world, project-based education in allowing Gen Z students to learn through hands-on experiences and practical applications. Furthermore, teachers agreed that they provide differentiated, personalized, and self-directed learning experiences tailored to students' diverse needs and interests (1.87). Overall, these identified opportunities reveal the importance of leveraging innovative, flexible, and technology-driven teaching strategies in order to create impactful learning experiences that will prepare students for a highly evolving world.

Table 3 Classroom Management Strategies

Statements	Weighted Mean	Description
1. I have sufficient opportunities to use proactive classroom management strategies to suit the needs of Generation Z students.	1.87	Agree
2. I receive adequate training on how to engage Generation Z students through technology and other modern tools.	2.26	Agree
3. I feel confident managing classroom behavior while balancing the use of digital tools that Generation Z students prefer.	2.06	Agree
4. I am equipped to handle the potential distractions posed by smartphones and other devices used by Generation Z students.	2.16	Agree
5. I am immersed in a school administration that supports innovative classroom management approaches and provides resources ...	1.90	Agree
6. I find it challenging to maintain student focus due to the influence of technology on Generation Z students.	2.32	Agree
7. I find managing the classroom behavior of Generation Z students requires an overwhelming amount of effort and poses....	2.13	Agree
8. I find the individualistic and independent learning style of Generation Z students daunting because it complicates...	2.53	Disagree
9. I find it difficult to manage the short attention spans of Generation Z students in a structured classroom environment.	2.10	Agree

Statements	Weighted Mean	Description
10. I find Generation Z students' preference for collaborative learning demanding because it makes maintaining the classroom...	2.42	Agree
<i>Sub-weighted Mean</i>	<i>2.18</i>	<i>Agree</i>

The Gen Z students of today exhibit unique learning habits, behaviors, and expectations that require teachers to adapt their management strategies in order to build a productive and conducive learning environment. Table 3 shows that English teachers perceived both opportunities and challenges in implementing classroom management strategies to cater to Gen Z students, with an overall mean of 2.18, categorized as “agree.” Teachers recognize that while classroom management strategies are effective in managing Gen Z classrooms, they also acknowledge the challenges that come with their implementation.

Teachers agree they have opportunities to use proactive strategies, like setting clear expectations and building rapport, to meet Gen Z's needs (1.87). They also feel they receive adequate training to engage Gen Z students with technology and modern tools (2.26). Teachers are confident in managing classroom behavior while balancing digital tools preferred by Gen Z learners (2.06). They feel equipped to handle distractions from smartphones and other devices commonly used by Gen Z students (2.16). Moreover, teachers report strong support from school administration, which provides resources and encourages innovative classroom management approaches to address Gen Z's unique learning preferences and short attention spans (1.90). Overall, these identified opportunities suggest that English teachers are well-supported with proactive strategies, adequate training, resources, and institutional support to effectively manage and support Gen Z students.

Table 4 Learning Styles and Preferences

Statements	Weighted Mean	Description
1. I have the opportunity to learn through interactive and hands-on activities that align with my learning preferences.	1.62	Strongly Agree

2. I am given the freedom to engage with technology, such as apps or online tools, that enhance my learning experience.	1.57	Strongly Agree
3. I feel supported in using digital tools to personalize my learning experience.	1.66	Strongly Agree
4. I incorporate digital platforms and multimedia resources that reflect my generation's preference for online and interactive ...	1.67	Strongly Agree
5. I have amazing teachers who adapted teaching methods to accommodate the diverse learning styles present in our generation.	1.55	Strongly Agree
6. I struggle to stay focused during lectures that do not incorporate interactive or multimedia elements.	2.21	Agree
7. I have difficulty expressing my learning style due to the emphasis on standardized testing that limits my ability in	2.20	Agree
8. I often feel overwhelmed by the variety of digital tools available, which can hinder my learning.	2.09	Agree
9. I find it hard to get engaged and motivated due to the absence of opportunities for creative expression in the curriculum...	2.23	Agree
10. I find it challenging to collaborate with peers who have different learning styles, which affects group project outcomes.	2.02	Agree
<i>Sub-weighted Mean</i>	<i>1.88</i>	<i>Agree</i>

In today's generation, the learning ability of learners varies according to their individuality and comfort level. Learners learn best if the learning environment provides warmth and support in dealing with diversity. In this sense, adapting hard lessons will come easily for the Gen Z learners because of the given motivation and versatile activities that deflected standardization. Table 4 shows the perceived opportunities and challenges of Gen Z students' learning styles and preferences, with an overall of 1.88, categorized as “agree.” It demonstrates that student respondents predominantly favor interactive, hands-on, and technology-integrated learning approaches.

The integration of digital tools, such as apps and multimedia resources, not only amplifies engagement but also equips the learners to have comfort because of the freedom being nurtured for them (1.66). This aligns with findings from studies suggesting that Generation Z learners thrive in environments that incorporate digital tools and multimedia, which cater to their familiarity with technology and preference for active engagement

(Seemiller & Grace, 2017). Additionally, students expressed strong approval for teachers' efforts to adapt teaching methods to diverse learning styles. Overall, these identified opportunities suggest that learners thrive in environments that foster engagement and accommodate their diverse learning styles. Teachers' efforts to accommodate these preferences are positively acknowledged, reflecting adaptability in modern classrooms (1.55).

Table 5 Engagement and Motivation

Statements	Weighted Mean	Description
1. I use creative digital technology, such as Quizlet, Kahoot!, and Quizizz, to easily create and play interactive review ...	1.66	Strongly Agree
2. I can efficiently persevere through comprehensive and complex English topics, such as literature and grammar, without fatigue ...	1.77	Agree
3. I am compelled to stay competitive and engaged in my English class due to gamification of language assessments.	1.77	Agree
4. I am more motivated to take my English course/subject seriously because the implementation of simulations allows me ...	1.67	Strongly Agree
5. I am more motivated to study with my friends because today's technology offers various tools and platforms to ...	1.75	Strongly Agree
6. I lose focus on the subject matter itself because of interactive language learning materials.	2.44	Agree
7. I am embarrassed and discouraged from participating in class because I do not have access to trending cyber-digital tools.	2.48	Agree
8. I cannot engage with the lessons and my classmates in a timely and smooth manner because of my intermittent and ...	2.38	Agree
9. I can no longer stay attentive for a sufficient amount of time when it comes to pure discussions and study sessions because I ...	2.48	Agree
10. I lose interest in class when I see that teachers are just showing us ready-made self-learning modules and pre-recorded videos...	2.26	Agree
<i>Sub-weighted Mean</i>	<i>2.07</i>	<i>Agree</i>

Students like interactive and digital improvements, but there needs to be a balance to deal with the problems that come with too much use and accessibility issues. Table 5 shows the perceived opportunities and challenges of Gen Z students' engagement and motivation, with an overall mean of 2.07, indicating that students generally "agree" with the statements about their engagement and motivation. This suggests a positive but cautious perspective on the use of digital tools and teaching strategies that leverage interactive methods.

The lowest weighted mean of 1.66 is associated with students' strong agreement regarding the use of creative digital tools such as Quizlet, Kahoot!, and Quizizz to enhance their learning experience. This highlights the significant role that gamified, interactive platforms play in sustaining students' interest and engagement in English subjects. Whereas, activities that relate lessons to real-life contexts enhance their desire to learn and promote collaboration among peers (1.75). Collaborative tools evidently enhance motivation, illustrating that technology can proficiently promote active and cooperative learning. Gamification and simulations are valued for their ability to promote competitiveness and motivation while connecting learning to real-world applications (1.67). Research shows that integrating gamification in education increases student motivation and retention of concepts (Dichev & Dicheva, 2017). Additionally, collaborative tools enable students to develop critical communication skills while fostering a supportive learning environment (Gilles, 2019). Overall, the findings suggest that while digital tools and innovative methods effectively enhance engagement and motivation, educators must strive for a balanced approach. Addressing technological disparities (Alda, et al., 2022), integrating diverse teaching methods, and fostering a supportive classroom environment (Bacus & Alda, 2023) are critical to ensuring equitable and sustained engagement in English language learning.

Table 6 Cultural and Linguistic Diversity

Statements	Weighted Mean	Description
1. I am now more able to effectively and appropriately communicate and collaborate with people coming from diverse...	1.78	Agree
2. I have become more prudent and sensitive with my utterances because I am consistently around people from diverse cultural ...	1.86	Agree
3. I am more encouraged to use the English language as inclusively and clearly as possible to ensure mutual interpretation.	1.77	Agree
4. I am able to enhance my collaboration skills more easily because I study and accomplish academic tasks with people from diverse...	1.77	Agree
5. I have become more open to novel and diverse ideas and philosophies because of being consistently exposed to people....	1.82	Agree
6. I am held back from actively participating in our English class because I am ashamed of my different level of proficiency in the...	2.16	Agree
7. I sometimes feel that the strategies and methods of English teachers cater more to native English speakers or those with	2.15	Agree
8. I find it uncomfortable to accomplish academic tasks together because I have different beliefs and practices from those ...	2.46	Agree
9. I have a tendency to blurt out insensitive comments and jokes that are deemed taboo by other cultures, ...	2.40	Agree
10. I am reluctant to be active and to improve myself in my foreign or different learning environment because of culture shock and...	2.23	Agree
<i>Sub-weighted Mean</i>	<i>2.04</i>	<i>Agree</i>

Cultural and linguistic diversity plays a significant role in shaping the learning experiences of Gen Z learners as they grow up in an increasingly globalized and interconnected world. With access to a wide range of digital platforms and international communication tools, Gen Z students are more exposed to diverse cultural perspectives and languages than previous generations. This exposure fosters greater awareness, adaptability, and collaboration across various cultures. Table 6 shows the perceived opportunities and challenges of Gen Z

students' cultural and linguistic diversity, with an overall mean of **2.04**, categorized as “agree.” This indicates that students generally agree with the statements, reflecting a moderate level of adaptability and awareness regarding cultural diversity in academic settings.

Student respondents expressed increased sensitivity, inclusivity, collaboration, and openness to new ideas due to interactions with individuals from varied cultural and linguistic backgrounds (1.78). Deardorff (2020) stressed the importance of cross-cultural exposure in developing intercultural competence, which is crucial for personal growth and success in a globalized world. Similarly, fostering an inclusive environment where students are encouraged to use language clearly and inclusively can lead to better mutual understanding. A study by Banks (2016) supports this, showing that culturally diverse classrooms promote empathy and communication skills, which are key to success in diverse work environments. Overall, the opportunities created by cultural and linguistic diversity in educational settings are vast, fostering key skills such as communication, collaboration, and openness to diverse perspectives (1.77). These opportunities not only prepare students for the complexities of global interaction but also equip them with the intercultural competence necessary to thrive in the modern world.

These findings extend constructivist and socio-cultural learning theories by illustrating how Gen Z's digital fluency reshapes traditional teacher-student dynamics. The strong agreement on collaborative, technology-driven methods affirms Vygotskian principles of socially mediated learning, while the reported challenges with attention and superficial engagement highlight cognitive-load concerns in multimedia learning theory. By linking technology integration with learner motivation, the study also supports self-determination theory, suggesting that autonomy and relatedness are crucial for sustaining engagement in contemporary classrooms.

4. Conclusion and Recommendations

Taken together, the results from the six tables reveal a consistent pattern: English teachers and Gen Z learners generally agree that technology integration, innovative teaching strategies, and collaborative learning are powerful drivers of engagement and skill development. At the same

time, both groups highlight parallel challenges—limited training, short attention spans, and uneven digital access—that temper these opportunities. This convergence of perspectives underscores the need for balanced, evidence-based interventions that maximize the benefits of technology while mitigating its drawbacks.

This study examined the pedagogical and student-centric opportunities and challenges of English teachers in teaching Generation Z learners. It was revealed that technology integration, student-centered approaches, contextualized learning, collaboration, and curricular adaptation significantly improve and modernize the teaching-learning process of English courses, thus better equipping Generation Z learners with the knowledge and skills needed in the real world. On the other hand, the data reveal that despite the aforementioned benefits in teaching English to Generation Z learners, challenges, such as teachers' readiness to integrate technology thoroughly, outdated instructional strategies and methods, difficulty in catering to emerging learning needs and preferences of students, limited access to innovative educational technology, and students' anxiety and embarrassment in dealing with classroom diversity, are existent. Based on these findings and insights, it is recommended that educators and policymakers develop a curriculum that meets the needs, characteristics, preferences, and expectations of students. It is crucial for teachers to understand the nature of their learners and reflect on their practices and find balance in the use of traditional and modern teaching strategies. It is a necessity to embrace the potential of technology and continuously utilize it in the classroom for Gen Z students who are highly attuned to such tools. Moreover, it is recommended that school administrators provide the necessary support for teachers such as professional development programs and significant resources to equip them with the knowledge and skills to make the teaching-learning process more effective.

While this study provides valuable insights on addressing the dynamics and demands of 21st-century classrooms, it is limited by its reliance on pre-designed survey questionnaires, which may have restricted deeper insights from participants. Future research could benefit from a mixed-method approach and broader stakeholder involvement to capture diverse perspectives across various educational and cultural contexts.

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