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Bridging Pedagogy and Policy: Lived Experiences of Grade 7 Science Teachers Under Revised K to 12 Curriculum

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Abstract:
This study examined the lived experiences of Grade 7 Science teachers in implementing the Revised K–12 Curriculum in selected secondary schools in the 2nd District of Sorsogon Province, Philippines. It explored how teachers adapted to pedagogical shifts, perceived Department of Education (DepEd) training and support, reshaped instruction and assessment, and developed coping mechanisms to bridge gaps between policy and classroom realities. Using a phenomenological design, data were gathered through semi-structured interviews, focus group discussions, and participant profile sheets. Thematic analysis in vivo coding captured the essence of teachers' narratives, ensuring credibility through triangulation, member checking, and peer debriefing.
Findings revealed that teachers adopted learner-centered, inquiry-based, and contextualized approaches, integrating collaborative work, local resources, and technology to engage students. Though they initially experienced anxiety, confidence grew as students responded positively to hands-on, real-world activities. Teachers recognized DepEd's efforts through trainings and exemplars but found them brief, theoretical, and lacking contextual relevance, particularly in rural areas. Instructional practices evolved toward authentic assessments such as projects, portfolios, and performance tasks, which fostered deeper learning but demanded time and resources. Major challenges included overcrowded classrooms, inadequate facilities, heavy workloads, and unclear policy directions. Despite these constraints, teachers demonstrated resilience and creativity by improvising laboratory tools, localizing materials, and adopting blended learning. The study concludes that while the Revised K–12 Curriculum encouraged meaningful, student-centered learning, its success relied on teacher agency and innovation. It recommends sustained, practical, and science-focused professional development with stronger institutional support to ensure effective and inclusive curriculum implementation.

Keywords: lived experiences, Grade 7 Science teachers, Revised K–12 Curriculum, pedagogical changes, DepEd training, authentic assessment, teacher resilience, curriculum implementation

I. INTRODUCTION

Curriculum serves as the backbone of any educational system, shaping not only the content of instruction but also the methods and outcomes of learning. It provides the structure through which knowledge, skills, and values are systematically developed, making it a central factor in determining the quality of education.

Curriculum reforms in any country reflect the government's effort to align education with global standards while addressing local needs. They also embody the nation's vision of producing competent, values-driven, and future-ready citizens who can contribute meaningfully to society. As such, the curriculum becomes both a roadmap for national development and a mirror of the society's cultural and educational aspirations.

The quality of education in any country is fundamentally anchored in its curriculum. As Apsari (2018)[1] asserted, curriculum serves as the guiding framework for achieving targeted educational outcomes, making it a central determinant of the quality and impact of an education system. It encompasses the essential knowledge, skills, values, and competencies that students must acquire within a specific field of study. To ensure that these outcomes are met, it is imperative to design a curriculum that is responsive to learners' developmental needs, cultural contexts, and future aspirations (Muskin, 2015)[2]. A well-designed curriculum also serves as a bridge between educational philosophy and actual classroom practice. It transforms abstract goals into tangible learning experiences that foster intellectual curiosity and holistic growth among learners. When teachers understand the curriculum's intent and philosophy, they are better able to contextualize lessons to fit students' needs. Thus, teacher involvement in curriculum development and evaluation becomes essential in ensuring that the curriculum remains both relevant and attainable.

Curriculum is not static; it is a dynamic blueprint that evolves in response to societal changes, technological advancements, and global educational trends. It reflects the national vision for education and is crafted through empirical research and expert consultation. In the 21st century, many countries have undertaken curriculum reforms to better prepare students for a rapidly changing world. These reforms aim to integrate 21st-century skills such as critical thinking, collaboration, digital literacy, and adaptability into the core of educational practice. As the educational landscape continues to evolve, there is a growing emphasis on competency-based learning and lifelong education. Competency-based approaches shift the focus from rote memorization to the mastery of essential skills and knowledge applicable in real-life situations. This framework encourages learners to apply what they have learned in diverse contexts, fostering deeper understanding and independence. Moreover, it promotes equity by allowing students to progress according to their readiness and individual learning pace.

In the Philippines, curriculum reform has been a strategic priority under the Department of Education (DepEd). The enactment of Republic Act No. 10533, also known as the Enhanced Basic Education Act of 2013, marked a significant shift in the country's educational landscape. This law introduced the K–12 Basic Education Program, which added two years of senior high school to the existing structure. The program was designed to broaden the goals of secondary education by preparing students for higher education, employment, entrepreneurship, and technical-vocational careers. It also emphasized learner-centered approaches, cultural responsiveness, and the use of mother tongue-based multilingual education (DepEd, 2019)[3].

The success of any curriculum reform depends largely on the capacity of educators to interpret and deliver it effectively. Teachers act as curriculum mediators who translate policy intentions into classroom realities through their pedagogical decisions. Their beliefs, experiences, and professional competencies significantly influence how reforms are implemented and sustained. Therefore, continuous professional development, instructional support, and adequate resources are vital in empowering teachers to adapt to new curricular frameworks. Since K–12 Basic Education Program's initial implementation in the 2012–2013 academic year, it has undergone various evaluations. While it aimed to enhance the quality of education, concerns have emerged regarding its effectiveness. A comprehensive review revealed several

challenges, including an overcrowded curriculum, misaligned learning competencies, and imbalanced cognitive demands. These issues have prompted calls for recalibration to ensure that the curriculum remains relevant, manageable, and impactful.

In response, the Department of Education introduced the Revised K–12 Curriculum, also known as the MATATAG Curriculum, as part of its broader reform agenda. Anchored on the MATATAG: Bansang Makabata, Batang Makabansa framework, this revised curriculum seeks to address existing gaps and improve the overall quality of basic education. The term MATATAG, meaning resilient or steadfast in Filipino, symbolizes the commitment to building a strong and responsive education system. The MATATAG Curriculum focuses on four strategic components: (1) making the curriculum relevant to produce competent, job-ready, and responsible citizens; (2) taking steps to accelerate the delivery of basic education facilities and services; (3) taking good care of learners by promoting well-being, inclusive education, and a positive learning environment; and (4) giving support to teachers to enhance instructional quality and professional growth.

DepEd Order No. 10, s. 2024 outlines the policy guidelines for the implementation of the MATATAG Curriculum, amending the previous DepEd Order No. 21, s. 2019. The revised curriculum was piloted in 35 schools across 13 divisions and seven regions. As of May 24, 2024, over 267,900 teachers and personnel had undergone training to support its phased rollout, beginning with Kindergarten, Grades 1, 4, and 7 in the 2024–2025 school year. Curriculum guides, textbooks, and lesson exemplars for these grade levels have been recalibrated to reflect the new standards and learning outcomes. Recent studies have provided fresh insights into how the MATATAG Curriculum is being received by teachers in the field. A scoping review by Herrera (2024)[4] stated that covering eleven empirical studies found that teacher perspectives, school leadership, training experiences, and resilience are critical to successful implementation. Additionally, a 2025 study by Abaiz et al. (2025)[5], Teachers' Perspectives on MATATAG Curriculum in the Philippines, reported that while the curriculum enhanced foundational skills and cultural values, many teachers experienced challenges in pacing, time management, and material availability. These findings emphasize that beyond robust policy frameworks, practical and contextual support for teachers remains crucial.

In particular, transformation in subject-area curricula has revealed both promise and limitations. Lastimosa and Dagondon (2025)[6] analyzed the MATATAG English Grade 7 curriculum through the lens of Transformative Learning Theory and found strong alignment with phases such as critical reflection and rational discourse. However, they also noted teacher concerns over limited training, large class sizes, and inadequate resources that hinder transformative instruction. Their study underscored that curriculum reform must be complemented by systemic capacity building to ensure effective classroom translation. Other literature has explored the challenges in other learning areas. Angeles and Rabago (2025)[7] found that Social Studies teachers face resource shortages, misaligned textbooks, and outdated instructional materials when implementing the MATATAG Curriculum. Similarly, a study on food, nutrition, and science education revealed persistent gaps in laboratory facilities and alignment between curriculum and industry standards. These disparities indicate that curriculum implementation challenges vary across subjects and schools, requiring differentiated interventions and sustained monitoring.

Collectively, these recent findings reaffirm that curriculum reform is a long-term process requiring systemic coherence. Success depends not only on curriculum design but also on the interplay of leadership, resources, and teacher readiness. Addressing these interconnected factors will determine whether the MATATAG Curriculum achieves its goal of nurturing globally competitive yet locally grounded learners.

Continuous evaluation and teacher-driven feedback loops will be essential in refining implementation strategies and ensuring lasting educational improvement. Teachers occupy a central role in bridging the gap between curriculum intent and classroom reality. Their creativity, adaptability, and professional judgment determine how effectively learning goals are achieved within diverse contexts. Studies consistently show that empowering teachers to localize content enhances engagement and relevance among learners. Therefore, curriculum implementation should prioritize teacher agency by allowing flexibility in instructional design and contextual adaptation.

Effective curriculum implementation also depends on strong alignment between policy directives and classroom practices. When policies are crafted without considering ground-level realities, teachers face practical barriers that hinder success. Institutional support structures—such as mentoring programs, resource provision, and continuous monitoring—can mitigate these challenges. Establishing collaborative feedback mechanisms between policymakers and practitioners ensures that reforms remain both practical and sustainable. Localization of curriculum implementation remains a significant consideration under the MATATAG framework. Given the Philippines' diverse linguistic, cultural, and socioeconomic contexts, uniform strategies may not effectively address all learner needs. Contextualization allows schools to integrate local examples, indigenous knowledge, and community practices into instruction. This approach not only strengthens cultural identity but also enhances learner motivation and comprehension.

Ongoing research is crucial to sustaining meaningful curriculum innovation. Longitudinal studies can capture the long-term effects of the MATATAG Curriculum on student outcomes, teacher performance, and school systems. Comparative analyses between regions and grade levels may reveal emerging best practices and contextual strengths. Through continuous evaluation, collaboration, and evidence-based decision-making, the Philippine education system can ensure that curriculum reform remains responsive, equitable, and future-ready. The researcher, being one of the implementers of the recalibrated Grade 7 Science curriculum, is positioned to provide firsthand insights into the practical realities of curriculum implementation. The revised Science curriculum aligns with the MATATAG agenda by emphasizing foundational scientific literacy, inquiry-based learning, and the integration of real-world applications. It aims to cultivate critical thinking, problem-solving, and environmental awareness among learners.

This study explored the lived experiences of Grade 7 Science teachers in implementing the MATATAG or the Revised K-12 Curriculum, particularly in the selected secondary schools of the 2nd District of Sorsogon, namely Gubat, Barcelona, and Bulusan Districts. It examined their perceptions, instructional practices, and the challenges they encounter in adapting to the new framework. Furthermore, the study proposed targeted interventions to support teachers in enhancing their implementation strategies. By identifying key educational challenges and offering evidence-based recommendations, this research intends to contribute to the continuous improvement of curriculum delivery and the overall quality of education in the Philippines.

In addition to exploring teacher experiences, the study also considered the role of assessment practices within the new curriculum. Assessment is a critical component of curriculum implementation, serving as a tool for measuring learning outcomes, guiding instruction, and informing policy decisions. The MATATAG Curriculum emphasizes the use of formative and summative assessments, performance tasks, and authentic evaluation methods to ensure that learning is meaningful and aligned with real-world competencies. Understanding how teachers navigate this assessment demands will provide valuable insights into the effectiveness of the curriculum and the support systems needed for its successful implementation.

Statement of the Problem

This study explored the lived experiences of Grade 7 Science Teachers in implementing the Revised K–12 Curriculum, particularly seeking answers to the following questions:

1. How do Grade 7 Science teachers describe their experiences adapting to the pedagogical changes introduced by the Revised K–12 Curriculum?
2. In what ways do teachers perceive the effectiveness of the training and support provided by DepEd during the implementation process?
3. How has the curriculum reform influenced teachers' instructional strategies, assessment methods, and student engagement in science classes?
4. What challenges and opportunities have emerged in aligning classroom practices with the curriculum's policy directives?
5. What coping mechanisms and innovations have teachers developed to bridge gaps between curriculum expectations and classroom realities?

Research Assumptions

The following are the assumptions of this research:

1. Teachers have diverse experiences in adapting to the pedagogical changes of the Revised K–12 Curriculum, including the shift to learner-centered approaches, contextualized and competency-based strategies, and inquiry-based learning, shaped by factors such as training, teaching experience, available resources, and school context.
2. Teachers' perceptions of training and support provided by DepEd significantly influence their confidence and competence in implementing the curriculum.
3. Curriculum reform impacts instructional strategies, assessment methods, and student engagement, suggesting that policy changes translate into shifts in teaching practice.
4. In aligning classroom practices with the policy directives of the Revised K–12 Curriculum, teachers encounter both challenges, such as large class sizes, limited resources, and diverse learner readiness and opportunities, including flexible lesson delivery, localized strategies, and culturally responsive approaches, all of which influence the consistency and effectiveness of curriculum implementation.
5. Teachers develop coping mechanisms and innovations to address the mismatch between curriculum expectations and classroom realities, highlighting their agency and creativity in the face of implementation gaps.

II. METHODS AND PROCEDURES

Research Design

This study adopted a research design that is both exploratory and interpretive in nature. The study sought to understand how Grade 7 Science teachers experienced, interpreted, and responded to the implementation of the Revised K–12 (MATATAG) Curriculum. Given the focus on personal meaning-making and subjective experience, a qualitative phenomenological research design was deemed most appropriate. Phenomenology, as articulated by Creswell and Poth (2018)[8], aimed to "describe the common meaning for several individuals of their lived experiences of a concept or a phenomenon." It sought to distill individual experiences into a shared essence, capturing the core of what it means to live through a particular event or process. In this study, the phenomenon under investigation is the implementation of the recalibrated Grade 7 Science curriculum under the MATATAG framework.

The phenomenological approach was particularly suited for this research because it allowed for a deep exploration of the emotional, cognitive, and professional dimensions of teachers' experiences. It enabled the researcher to uncover how teachers perceived curriculum changes, adapted their pedagogical practices, and navigated institutional expectations and classroom realities. This approach also facilitated the identification of common themes and patterns that could inform future curriculum development and teacher support mechanisms.

To gather rich, descriptive data, the study employed multiple qualitative methods, including in-depth semi-structured interviews, focus group discussions (FGDs), and open-ended written reflections. These methods were aligned with phenomenological inquiry, as they allowed participants to articulate their experiences in their own words, providing nuanced insights that quantitative methods might have overlooked.

In-depth interviews served as the primary data collection tool, enabling one-on-one engagement with participants to explore their personal narratives, challenges, and coping strategies. Focus group discussions complemented the interviews by fostering collective reflection and dialogue among teachers, potentially revealing shared experiences and divergent viewpoints. Open-ended written reflections provided participants with the opportunity to express thoughts that have not surfaced during verbal interactions, offering an additional layer of depth and introspection.

To ensure methodological rigor, the study followed established procedures for phenomenological research, including bracketing (epoche) to minimize researcher bias, horizontalization to treat all data with equal value during initial analysis, and thematic clustering to identify core meanings and structures. Data was analyzed using Moustakas' (1994)[9] modified Stevick-Colaizzi-Keen method, which involves systematic coding, theme development, and synthesis of textual and structural descriptions. Furthermore, the study considered the contextual and institutional factors that shape teachers' experiences, such as school leadership, access to resources, professional development opportunities, and policy directives. These contextual elements are critical in understanding how curriculum reforms are interpreted and enacted at the classroom level. By employing a phenomenological design enriched with multiple qualitative methods, this study aimed to generate a comprehensive and authentic account of how Grade 7 Science teachers experience the implementation of the Revised K–12 Curriculum. The findings were expected to inform curriculum developers, policymakers, and educational leaders on how to better support teachers during periods of curricular transition and reform.

The Participants

Participants of the study are the Grade 7 Science teachers who were directly involved in the implementation of the Revised K-12 curriculum. A purposive sampling technique was employed to select individuals who have relevant experiences related to the transition and implementation of the Revised K-12 curriculum. Purposive sampling, also known as judgmental or selective sampling, is a non-probability sampling technique commonly used in qualitative research. It involved intentionally selecting participants who possessed specific characteristics or experiences relevant to the research topic. This technique was appropriate when the goal is to gain in-depth insights from individuals who were most knowledgeable about the phenomenon being studied.

As Palinkas et al. (2015)[10] stated, purposive sampling is "widely used in qualitative research for the identification and selection of information-rich cases related to the phenomenon of interest." It allowed researchers to focus on participants who can provide meaningful and detailed information, which is particularly valuable in phenomenological studies that aim to understand lived experiences.

The inclusion criteria included: (1) being a full-time Grade 7 Science teacher in a public secondary school within the districts of Gubat, Barcelona, and Bulusan; (2) having at least one year of teaching experience in Science 7 under the Revised K-12 curriculum; and (3) willingness to share their lived experiences. A total of 20 participants were targeted, the table below shows the number of selected participants from the districts of Gubat, Barcelona, and Bulusan.

District	**Position**					**Total**
	Teacher I	Teacher II	Teacher III	Master Teacher I	Master Teacher II	
Gubat	2	1	6	0	0	9
Barcelona	1	1	3	0	1	6
Bulusan	0	1	4	0	0	5
Total	**3**	**3**	**13**	**0**	**1**	**20**

Table A. ***Participants of the Study***

Data Collection Procedures

To comprehensively address the research questions of this study, a multi-method qualitative data-gathering approach was employed. This approach was designed to capture the depth and complexity of Grade 7 Science teachers lived experiences in implementing the Revised K–12 Curriculum. The primary method of data collection was in-depth semi-structured interviews, which allowed participants to describe their personal experiences, perceptions, and reflections on adapting to the pedagogical changes introduced by the curriculum. These interviews provided rich, narrative data that directly responded to the first research question regarding how teachers had adjusted their instructional practices in light of the curriculum reform.

In addressing the second research question, which investigated teachers' perceptions of the training and support provided by the Department of Education (DepEd), a combination of survey questionnaires and follow-up interviews were utilized. The survey included an open-ended question to assess the perceived adequacy, relevance, and impact of professional development initiatives. This mixed approach allowed for both quantifiable trends and deeper qualitative insights.

To examine how the curriculum reform had influenced instructional strategies, assessment methods, and student engagement—as addressed in the third research question—in-depth interviews were conducted. These interviews elicited detailed accounts from teachers on how they implemented curriculum changes, adapted their teaching approaches, and engaged students in the learning process, thereby providing contextual insights into how pedagogical shifts were experienced and enacted in actual classroom settings.

To explore the fourth research question—concerning the challenges and opportunities in aligning classroom practices with policy directives—focus group discussions (FGDs) were conducted. These discussions encouraged collaborative reflection among teachers, enabling the identification of shared experiences, systemic barriers, and potential areas of innovation. FGDs were particularly useful for surfacing collective insights and contrasting perspectives that might not have emerged in individual interviews.

Finally, to explore the coping mechanisms and innovations developed by teachers to bridge the gap between curriculum expectations and classroom realities, participants were invited to submit written narrative reflections. These reflections offered a space for introspection and storytelling, allowing teachers

to articulate their adaptive strategies, creative solutions, and professional growth in response to implementation challenges.

This triangulated data collection strategy—comprising interviews, FGDs, surveys, and reflections—ensured a robust and holistic understanding of the phenomenon under study. It also enhanced the credibility and trustworthiness of the findings by capturing multiple dimensions of teachers' experiences from various data sources.

Instrumentality

To effectively capture the lived experiences of Grade 7 Science teachers regarding the implementation of the Revised K–12 Curriculum, the Semi-Structured Interview Guide was utilized. A semi-structured interview guide was developed to facilitate one-on-one interviews with selected participants. The guide consisted of open-ended questions aligned with the study's statement of the problem and research objectives. This format allowed flexibility for follow-up questions based on participants' responses, encouraging deeper insights and personal narratives. Questions explored areas such as teachers' perceptions of the Revised K–12 Curriculum, challenges faced, coping strategies, instructional innovations, and support systems.

Another instrument was the Focus Group Discussion (FGD). A focus group discussion was conducted to guide group conversations with five participants per session. This instrument encouraged interactive discussions that revealed shared experiences and collective perspectives. The FGD complemented individual interviews by providing a broader understanding of group dynamics and common themes. Moreover, the Participant Profile Sheet (PPS) was also used. This tool gathered relevant demographic and professional background information of the participants, such as years of teaching experience, subject taught, grade level, length of time teaching under the Revised K–12 Curriculum, and participation in any training or professional development.

Ethical Standards in Conducting Qualitative Research

This study adhered to the ethical principles outlined by the American Psychological Association (APA 2020)[11], with a strong emphasis on maintaining confidentiality, securing informed consent, preserving anonymity, and upholding ethical standards throughout the qualitative research process. These principles were essential to protect the rights, dignity, and privacy of all participants involved in the study. Ethical standards guided every aspect of the research process. The study was conducted in accordance with institutional and national ethical guidelines governing human subject research. All interactions were carried out with professionalism, respect, and cultural sensitivity, ensuring that participants' dignity and autonomy were preserved. During focus group discussions, participants were reminded of the importance of maintaining confidentiality and were asked to refrain from sharing any personal disclosures made during the session outside of the research setting. Collected data were used solely for academic purposes related to this study and were not shared with other parties, institutions, or individuals without the participants' explicit written consent.

Validity

In qualitative research, particularly in phenomenological studies, validity referred to the credibility and trustworthiness of the findings. To ensure that the participants' lived experiences in implementing the Revised K–12 Curriculum were accurately represented, several validation strategies were employed.

These included triangulation of data sources (interviews, focus groups, and participant profile sheets), member checking, where participants reviewed their transcribed responses, and peer debriefing with academic mentors to confirm the consistency of emerging themes. These methods helped minimize researcher bias and ensured that interpretations remained grounded in the participants' actual narratives. Furthermore, the study employed rich, thick descriptions to provide detailed accounts of participants' experiences, enhancing the transferability of the findings to similar educational contexts. An audit trail was maintained to document the research process, decisions, and reflections, supporting the study's dependability and confirmability. These measures aligned with the standards set by Creswell and Poth (2018)[12] and the ethical research practices outlined by the American Psychological Association (APA, 2020)[13], thereby reinforcing the overall validity of the research outcomes.

Qualitative Data Analysis

The qualitative data analysis in this study followed a phenomenological approach, aiming to uncover the essence of Grade 7 Science teachers' lived experiences in implementing the Revised K–12 Curriculum. After the interviews and focus group discussions were transcribed verbatim, the researcher engaged in an iterative process of reading and rereading the data to gain a holistic understanding of the participants' narratives. Using thematic analysis, significant statements were identified, coded, and grouped into patterns and themes that captured the core meanings of participants' experiences. A key component of this process was in vivo coding, which involved extracting exact words and phrases used by participants to preserve the authenticity and emotional tone of their responses. These in vivo codes served as anchors for broader thematic development and helped ensure that the analysis remained grounded in the participants' language.

To maintain methodological rigor, the data analysis followed the steps outlined by Creswell and Poth (2018)[14] for phenomenological studies: (1) organizing and preparing the data for analysis, (2) reading through all data to gain a general sense of the information, (3) coding significant statements and in vivo expressions, (4) developing themes or clusters of meaning from these codes, (5) describing what the participants experienced (textural description), and (6) explaining how they experienced it (structural description). The final step involved writing a composite description that encapsulated the essence of the phenomenon under study. Throughout the analysis process, the researcher ensured credibility and trustworthiness by employing member checking, maintaining an audit trail, and seeking input from peer reviewers. These strategies helped validate the findings and ensured that the analysis accurately reflected the lived experiences of the participants.

FRAMEWORK

This study on Bridging Pedagogy and Policy: Lived Experiences of Grade 7 Science Teachers Under the Revised K–12 Curriculum used the IPOO model. The conceptual framework of this study was anchored on the interconnected elements influencing Grade 7 Science teachers' lived experiences in implementing the Revised K-12 curriculum. It followed the Input-Process-Output-Outcome (IPOO) model.

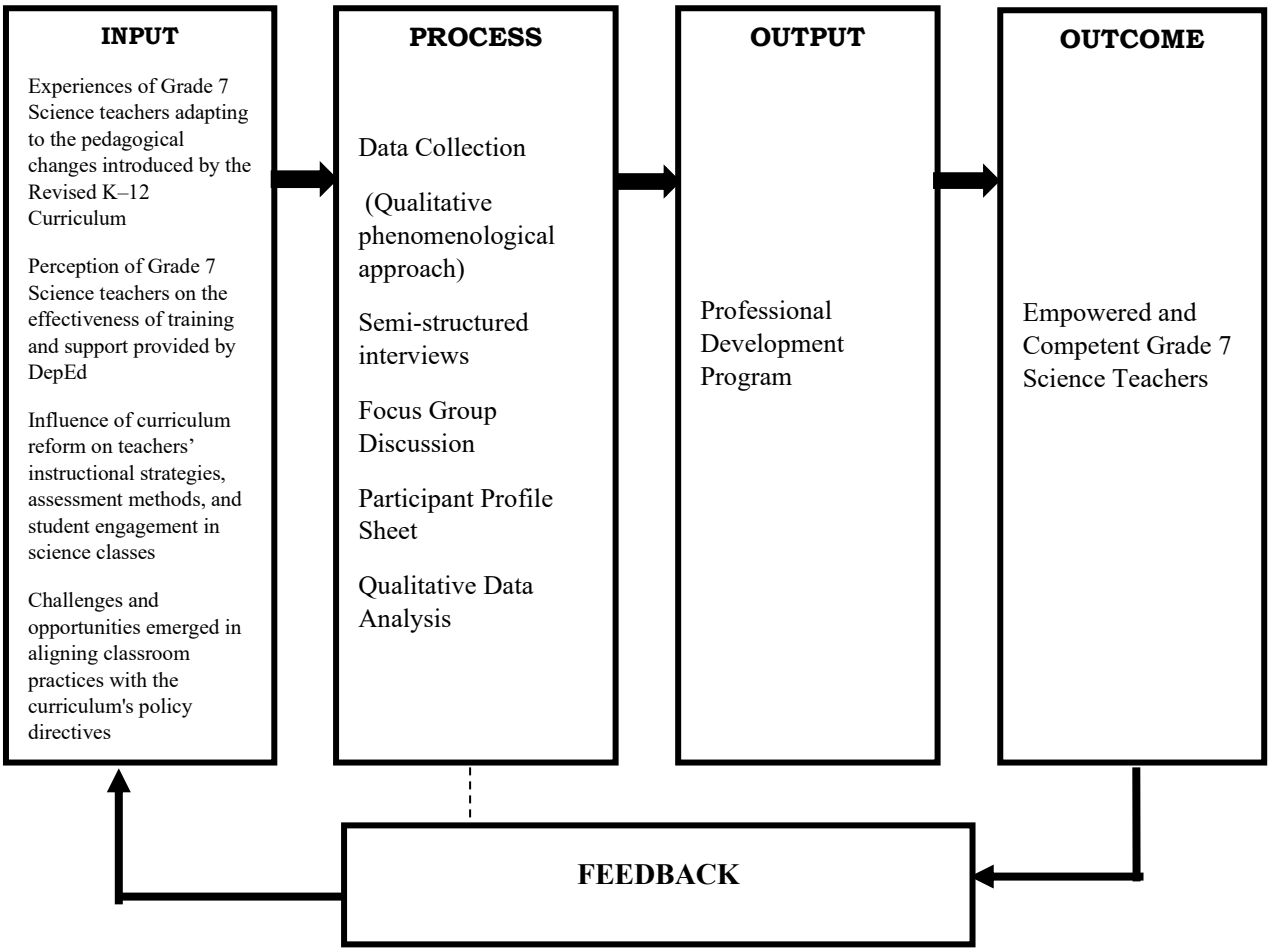
The inputs include the experiences of Grade 7 Science teachers adapting to the pedagogical changes introduced by the Revised K–12 Curriculum, perception of Grade 7 Science teachers on the effectiveness of training and support provided by DepEd, influence of curriculum reform on teachers' instructional strategies, assessment methods, and student engagement in science classes, challenges and opportunities emerged in aligning classroom practices with the curriculum's policy directives, and coping mechanisms

and innovations teachers developed to bridge gaps between curriculum expectations and classroom realities. These elements set the context and foundation for effective curriculum implementation. The process focused on how the researcher collected and gathered data. The researcher employed a qualitative phenomenological approach to gain in-depth insights into teachers' personal and professional experiences. Data were gathered primarily through a qualitative phenomenological approach using semi-structured interviews, Focus Group discussions, and Participant Profile sheets.

The outputs of these processes included valuable insights into the lived experiences of Grade 7 Science teachers, the identification of prevailing challenges and coping mechanisms, and the development of a proposed Professional Development Program entitled "Bridging the Gap: Coping Mechanisms and Innovations of Teachers in Addressing Curriculum–Classroom Disparities." Ultimately, these outputs are expected to lead to meaningful outcomes, specifically, the empowerment and enhanced competence of Grade 7 Science teachers in effectively implementing the curriculum within diverse classroom contexts.

This conceptual framework highlighted the need to understand not only the structural and instructional components of curriculum implementation but also the personal and professional experiences of teachers who are at the forefront of educational reform. It provided a holistic perspective that can inform policy decisions, capacity-building programs, and future enhancements of the curriculum in the local educational setting.

Figure 1. ***Conceptual Paradigm***



III. RESULTS AND DISCUSSION

3.1 Experiences of Grade 7 Science teachers in Adapting the Pedagogical Changes Introduced by Revised K-12 Curriculum

Learner-centered, Contextualized, and Competency-based Strategies

The Revised K–12 Curriculum in the Philippines prompted Grade 7 Science teachers to significantly adapt their teaching approaches, embracing more learner-centered, contextualized, and competency-based strategies. These shifts reflect the curriculum's emphasis on inquiry, relevance, and inclusivity, aligning with national education goals and global pedagogical trends.

One of the most prominent adaptations was the shift to inquiry-based and contextualized learning. Teachers moved away from traditional lecture-based instruction and instead encouraged students to ask questions, investigate phenomena, and relate scientific concepts to their immediate environment. This approach is consistent with the Department of Education's K–12 Science Curriculum Guide, which promotes inquiry as a core strategy for developing scientific literacy and critical thinking. As Participant 11 noted, the teacher's role evolved from being the "*sole source of knowledge*" to a facilitator of learning, guiding students through experiments and discussions. This aligns with the constructivist and brain-based learning models embedded in the curriculum framework.

To make science more meaningful, teachers also emphasized real-life applications and local context. By integrating community-based examples and using local materials, educators helped students connect abstract concepts to familiar experiences. This strategy supports the curriculum's goal of making science education culturally responsive and relevant to Filipino learners' lives. Participant 5's use of realia and Participant 7's focus on local problem-solving illustrate how contextualization fosters deeper engagement and understanding.

The integration of technology and multimedia tools became another key adaptation. Teachers used videos, simulations, and digital platforms to cater to diverse learning styles and enhance instruction. This reflects the curriculum's encouragement of varied "hands-on, minds-on, and hearts-on" activities that stimulate curiosity and support differentiated learning. Participant 3's use of discovery learning and Participant 15's blended learning approach demonstrate how digital tools can enrich science education and make it more accessible. A shift toward student-centered and collaborative learning was also evident. Teachers reduced direct instruction and promoted student autonomy through group work, peer teaching, and interactive tasks. This pedagogical shift aligns with the K–12 curriculum's emphasis on developing learners' scientific attitudes, communication skills, and teamwork abilities. Participant 9's emphasis on hands-on collaboration and Participant 14's use of interactive games reflect this dynamic classroom environment.

In addition, teachers adopted creative and challenge-based approaches to foster innovation and problem-solving. Visual storytelling, project-based learning, and challenge tasks allowed students to express scientific ideas in imaginative ways. These strategies support the curriculum's goal of nurturing critical thinkers and responsible citizens who can apply science to real-world issues. Participant 13's use of student-created models and devices exemplifies how creativity can deepen conceptual understanding. To address diverse learner needs, teachers implemented differentiated instruction and inclusive practices. By modifying activities and assessments, educators ensured that students with varying abilities could participate meaningfully. Participant 16's approach to differentiation and Participant 18's reinforcement of spiral progression reflect the curriculum's commitment to equity and scaffolding of learning.

Finally, teachers aligned their instruction with competency-based planning and assessment. Clear learning targets, rubrics, and formative assessments helped students monitor their progress and understand

expectations. This shift supports the curriculum's performance standards and focus on mastery learning. Participant 17's use of rubrics and Participant 19's emphasis on feedback illustrate how assessment practices have evolved to support continuous improvement.

Grade 7 Science teachers in the Philippines have responded to the Revised K–12 Curriculum with a rich array of pedagogical innovations. These adaptations—grounded in inquiry, relevance, technology, collaboration, creativity, inclusivity, and competency—reflect a broader transformation in science education aimed at preparing learners for the challenges of the 21st century.

From Resistance to Resilience: Navigating Pedagogical Change Through Reflection and Growth

The emotional journey of Grade 7 Science teachers in adapting to the Revised K–12 Curriculum reflects a broader narrative of professional transformation, resilience, and pedagogical growth. Initially marked by anxiety, skepticism, and logistical frustrations, their experiences evolved into confidence, fulfillment, and renewed commitment to student-centered learning. This progression is supported by recent scholarly literature that explores teacher adaptation to curriculum reform in the Philippine context.

In the early stages of implementation, many teachers reported feelings of overwhelm and anxiety. The shift from traditional lecture-based methods to inquiry-based and differentiated instruction posed significant cognitive and emotional demands. As Participant 1 and Participant 12 noted, the workload and unfamiliar strategies were daunting. This aligns with the findings of Magallanes, Chung, and Lee (2022)[15], who observed that teachers often experience stress and uncertainty during curriculum transitions, particularly when required to adopt new pedagogical frameworks without sufficient training or support. The emotional toll is compounded by the pressure to meet performance standards while navigating unfamiliar instructional territory.

Skepticism and resistance were also common reactions, especially among teachers accustomed to conventional teaching methods. Participant 4 and Participant 13 expressed doubts about the effectiveness of project-based and competency-based learning, fearing student disengagement or underperformance. These concerns are echoed in the study by Lomba-Portela et.al (2022)[16], which found that resistance to pedagogical change often stems from a lack of confidence in students' ability to thrive under new models. However, as teachers witnessed improvements in student engagement and performance, their skepticism gradually gave way to acceptance and enthusiasm.

Nervousness about classroom management and the perceived loss of control further complicated the transition. Teachers like Participant 7 and Participant 20 feared that student-centered approaches would lead to chaos or a lack of focus. This fear is not unfounded; according to the work of Rhamadhan (2025)[17], teachers often struggle with relinquishing authority in favor of collaborative and inquiry-driven learning environments. Yet, as these educators discovered, the "noise" of active learning was a sign of deeper engagement, and students responded positively to increased autonomy.

Logistical challenges and resource limitations added another layer of frustration. Participant 3 and Participant 15 highlighted the lack of materials, unstable internet access, and limited peer support as barriers to effective implementation. These issues are consistent with the findings of Magatines and Flores (2024)[18], who emphasized that infrastructure gaps and uneven access to technology hinder the success of curriculum reforms. Despite these obstacles, teachers adapted by blending digital and traditional tools, demonstrating flexibility and innovation in their practice.

As teachers gained experience and observed student growth, their initial apprehensions transformed into confidence and fulfillment. Participant 11 and Participant 12 described how student curiosity and

contextualized learning outcomes shifted their perspective from worry to appreciation. This evolution is supported by the study of Umbao and Ventura-Escote (2023)[19], which found that teacher satisfaction increases when students demonstrate deeper understanding and enthusiasm for learning. The emotional rewards of seeing students succeed often outweigh the initial discomfort of change.

The development of patience and motivation was another key outcome. Teachers like Participant 16 and Participant 17 found renewed energy in helping struggling learners catch up and meet competency standards. This aligns with the work of Hidayat et.al (2024) [20], who noted that teachers become more empathetic and reflective when they see the impact of differentiated instruction on student progress. The spiral progression model, once viewed with skepticism, became a valued tool for reinforcing foundational knowledge and building learner confidence.

The emotional trajectory of Grade 7 Science teachers under the Revised K–12 Curriculum illustrates the transformative power of professional growth. From anxiety and resistance to pride and fulfillment, their journey underscores the importance of support systems, continuous learning, and reflective practice. As Magallanes et.al (2022)[21] concluded, successful curriculum reform depends not only on structural changes but also on the emotional and cognitive readiness of educators. The experiences of these teachers affirm that with time, support, and evidence of student success, even the most daunting reforms can lead to meaningful and lasting change.

Easiest Shifts: Collaboration, Contextualization, and Visual Tools

Teachers overwhelmingly found it easiest to adopt collaborative learning, contextualization, and the use of visuals. Participant 1 shared that "group work implementation was easy due to students' willingness to collaborate," while Participant 11 explained that "transitioning to group activities was the easiest part because students naturally enjoyed working with peers." Participant 2 emphasized that "collaborative tasks were manageable," and Participant 8 said it was "easy to facilitate tasks." These accounts reflect Johnson and Johnson's (1999)[22] cooperative learning theory, which posits that collaboration fosters motivation, social skills, and knowledge construction.

Contextualization also came naturally. Participant 7 shared that "contextualizing lessons was intuitive," while Participant 10 observed that "using local examples [was] easy to integrate." Similarly, Participant 12 emphasized that "using visuals, multimedia, and real-life examples was easy, as students were immediately drawn to pictures, videos, and stories." This mirrors Gay's (2018)[23] culturally responsive pedagogy, which stresses connecting lessons to students' lived realities to deepen engagement. Teachers also leaned on visuals and realia. Participant 3 noted that "using realia was straightforward," Participant 6 said that "using visual aids was the easiest transition," and Participant 16 explained that "incorporating graphic organizers and visual aids into lessons was easy." Participant 17 added that "clarifying learning outcomes and competencies at the start of lessons was the easiest practice to adopt." According to Mayer's (2009)[24] cognitive theory of multimedia learning, visuals reduce cognitive load and enhance comprehension.

Teachers also described ease in scaffolding through prior knowledge and quick checks. Participant 18 found that "linking Grade 7 lessons to prior knowledge from elementary was relatively easy," while Participant 19 revealed that "using quick checks like exit slips, thumbs-up signals, and short quizzes was easy to integrate." Finally, Participant 20 stated that "framing lessons around real-life problems was easy because students could easily relate to issues like pollution, waste management, and health." These align

with Bruner's (1966)[25] spiral curriculum, where scaffolding and contextualization help learners connect new knowledge to prior understanding.'

Hardest Shifts: Assessment Design, Time Management, and Student Autonomy

While collaboration and contextualization were embraced, teachers struggled with assessment design. Participant 1 explained that "*ICT integration was difficult due to limited resources and technical challenges,"* while Participant 2 admitted to struggling with "*designing assessments that matched new approaches*." Participant 5 found that "*creating performance-based rubrics was complex and time-consuming,*" and Participant 11 said that "*designing authentic performance-based tasks that truly measured understanding was the hardest part.*" Similarly, Participant 13 found "*moving away from traditional written tests to performance tasks consumed more preparation time*." Participant 17 emphasized difficulty in creating "*detailed rubrics that were fair, comprehensive, and easy for students to understand,"* while Participant 16 described the pressure of "*designing multiple versions of assessments to cater to different learning needs*." Participant 8 found "*grading students fairly based on participation and creativity*" problematic, and Participant 19 admitted it was hardest to "*provide consistent, detailed feedback on every student's work*." These challenges echo Wiggins' (1998)[26] argument that authentic assessment requires time, creativity, and teacher training.

Time management was also a recurring theme. Participant 3 admitted that "pacing lessons was difficult as students needed more time for exploration," and Participant 6 highlighted that "*timing inquiry-based activities to fit within class periods posed a challenge."* Participant 14 described the struggle of "*finding the right balance between finishing the curriculum on time and allowing space for interactive activities*," while Participant 18 emphasized that "*ensuring mastery before moving to the next topic*" was difficult, as "*the curriculum pace did not allow enough time for struggling learners*." Zhao (2024)[27] emphasized that pressure to accelerate curriculum coverage often undermines the depth and quality of student learning.

Finally, shifting classroom control toward student autonomy proved difficult. Participant 7 said that "*teaching spiral topics across grade levels presented organizational issues,"* while Participant 9 explained that "*managing student behavior in active group settings"* was challenging. Participant 10 admitted that *"managing group dynamics proved to be the hardest part,*" and Participant 12 struggled with "*facilitating critical discussions and debates"* because of uneven participation. Participant 15 acknowledged that "*reducing lecture time"* was difficult, as he was used to being the "*main voice*" in the classroom. Participant 20 admitted feeling "*uneasy when students proposed unexpected or unconventional ideas*," making it difficult to give them full independence. These struggles align with Vygotsky's (1978)[28] social constructivist theory, which emphasizes scaffolding to gradually shift responsibility to learners.

How Changes in Pedagogy Positively Impacted Student Understanding in Grade 7 Science Classrooms

Hands-On and Experimental Learning

Teachers widely reported that hands-on strategies improved student understanding. Participant 1 explained that "*using local experiments helped students develop a better grasp of abstract scientific concepts*." Participant 6 found that "*DIY activities made lessons more tangible, reinforcing learning through practice*." Participant 11 described how "*students created ecosystem models using recyclable materials*," which helped them "*visualize relationships among producers, consumers, and decomposers*." Participant 13 shared that "*project-based learning helped his class grasp difficult concepts*," citing a "*water filter*

activity" that improved retention. Similarly, Participant 17 noted that a "*soil-testing activity was a breakthrough,"* while Participant 18 highlighted that "*balloon experiments with vinegar and baking soda made students curious and able to explain gas formation."* These findings echo Kolb's (1984)[29] experiential learning cycle, which emphasizes learning through doing, reflection, and application.

Contextualization and Real-Life Applications

Linking science to students' lives strengthened understanding. Participant 2 explained that "students could relate to real-life examples," while Participant 4 observed that "real-world tasks heightened student interest and relevance." Participant 12 found that "contextualization worked wonders," with students applying lessons at home through water conservation campaigns. Participant 20 emphasized that "problem-based learning gave her students a real sense of ownership," as they tackled "plastic waste in their school" with solutions like eco-bricks. Dewey (1938)[30] argued that authentic, real-world contexts enhance meaningful learning, a principle evident in these experiences.

Project-Based and Inquiry-Driven Approaches

Inquiry and projects empowered learners. Participant 3 noted that "*project-based learning allowed students to develop deeper comprehension and ownership of ideas*." Participant 7 shared that "*students became more inquisitive, asking deeper questions."* Participant 14 highlighted that "*role-playing have significantly enhanced learning,"* while Participant 20 emphasized that independence fostered "*creativity and responsibility."* These align with Krajcik and Shin (2021)[31] found that PBL develops conceptual understanding and higher-order reasoning.

Technology Integration and Visual Tools

Teachers observed that digital tools clarified abstract concepts. Participant 5 noted that "*modeling lessons improved retention*," particularly for visual learners. Participant 8 said that "*simulations helped students visualize complex systems*," while Participant 15 found that "*online simulations led to better quiz scores*." This supports Mayer's (2009)[32] multimedia theory, which demonstrated the benefits of visual and interactive tools in science learning.

Differentiated Instruction and Feedback

Differentiation and formative assessment enhanced inclusivity. Participant 16 explained that "*concept maps at different levels helped struggling learners*," while Participant 18 noted that revisiting prior knowledge through experiments built stronger foundations. Participant 9 said "*students could clearly explain scientific concepts,"* showing mastery, and Participant 10 observed that "*group work promoted peer learning*." Participant 19 revealed that "*personalized feedback turned one student's performance around*," showing the transformative role of feedback. These findings echoed Black and Wiliam's (2009)[33] principles of formative assessment.

How Grade 7 Science Students Responded to New Teaching Methods

Increased Curiosity, Engagement, and Initiative

Teachers consistently reported higher engagement. Participant 1 noticed "*an increase in student curiosity,*" while Participant 2 described "*greater participation during collaborative and experiential tasks."* Participant 4 shared that "*students became more active learners,"* and Participant 9 observed a

"*significant increase in engagement.*" Participant 11 highlighted "*noticeable curiosity and enthusiasm*," while Participant 14 said that learners "*became more attentive and retained concepts better*." Participant 17 described students showing "*pride in learning*," and Participant 18 said they became "*more confident in applying prior knowledge*." These observations align with Deci and Ryan's (2000)[34] self-determination theory, which links autonomy and engagement to intrinsic motivation.

Positive Response to Contextualized and Real-Life Learning

Students connected strongly with localized lessons. Participant 10 noticed "*improved interest when lessons were localized*," while Participant 12 said her students became "*more participative with contextualized materials*." Participant 20 emphasized that lessons on "*real-world issues like waste management*" motivated learners with "*a sense of purpose."* This echoes Gay's (2018)[35] who called for culturally relevant pedagogy.

Enthusiasm for Hands-On and Performance-Based Activities

Teachers highlighted student enthusiasm for practical work. Participant 6 said students "*enjoyed hands-on activities*," while Participant 13 noted "*genuine excitement when doing hands-on projects."* Participant 7 explained that "*students preferred working in groups*," while Participant 3 cautioned that "*some struggled with autonomy*," underscoring the need for scaffolding (Vygotsky, 1978)[36].

Engagement Through Technology Integration

Digital tools were effective motivators. Participant 15 said students "*responded positively to technology,"* including "*videos, digital quizzes, and simulations*," which kept even short-attention learners engaged. This supports Zhao (2024)[37] findings on the motivational role of ICT.

Inclusivity and Differentiated Instruction

Tailored activities promoted inclusivity. Participant 5 reported "*mixed reactions,"* Participant 8 noted that "*some students were still adjusting*," and Participant 16 said her students "*felt more valued under differentiated instruction*." Participant 19 observed that students *"appreciated regular feedback,"* which fostered resilience. These findings support Tomlinson's (2014)[38] framework on differentiated learning.

3.2 Perception of Grade 7 Science teachers on the Effectiveness of Training and Support Provided by DepEd

The Kinds of Training and Resources Provided by DepEd

Teachers consistently pointed to a range of DepEd-led initiatives, with school-based and district-level trainings as the most common entry point. Participant 1 shared that she "*attended a school-based training on the MATATAG Curriculum*," where resource speakers explained the revised competencies and new pedagogical shifts. Similarly, Participant 10 noted that the training "*clarified the key features of the MATATAG Curriculum,"* with lesson exemplars serving as guides in lesson planning. District-level efforts were also highlighted, with Participant 19 describing that "*master trainers walked them through the new content standards and competencies*," while Participant 20 recalled training sessions that provided "*curriculum mapping and the use of diagnostic assessments in Grade 7 Science*." These reflections affirm the importance of formal capacity-building programs in scaffolding teachers' understanding of reforms (Fullan, 2016)[39].

Collaborative mechanisms such as Learning Action Cell (LAC) sessions played a complementary role by localizing DepEd's support. Participant 2 explained that her school held LAC sessions "*specifically on MATATAG-aligned teaching*," enabling teachers to adapt lesson exemplars. Participant 16 emphasized co-creation, where *"teachers co-created and exchanged lesson exemplars tailored to the local dialect.*"

Similarly, Participant 6 recalled gaining insights through in-service curriculum mapping workshops, while Participant 7 benefited from sessions that introduced "*sample rubrics, activity sheets, and assessment exemplars."* LAC-based professional learning reflects DepEd's policy thrust on peer-led development (DepEd Order No. 35, s. 2016)[40].

Teachers also appreciated access to lesson exemplars, modules, and activity sheets. Participant 1 received "*lesson exemplars and activity sheets that served as models for planning daily lessons."* Participant 4 noted the provision of "*teacher's guides, learner's modules, and contextualized activity sheets prepared at the division level*." Similarly, Participant 8 confirmed that schools distributed "*printed LRMDS modules for immediate use,"* while Participant 15 valued "*supplementary science activity sheets developed at the regional level, with step-by-step lab activities.*" These resources reduced preparation time and promoted alignment with competencies (Darling-Hammond et al., 2020)[41]. Technology integration also emerged as part of DepEd's support. Participant 3 pointed out that the "*LRMDS portal was introduced as a main resource for teaching guides and supplementary materials,"* though connectivity issues often hindered access. To address this, Participant 17 shared that they were trained to "*make use of open educational resources (OERs) alongside DepEd-provided materials*." In some schools, Participant 18 described how faculty prepared a "*resource bank of lesson plans, activity sheets, and PowerPoint presentations from both DepEd and teacher contributions*."

Finally, peer mentoring and contextualized resource development provided grassroots-level support. Participant 12 emphasized that "*senior teachers walked them through the use of MATATAG teacher's guides."* Participant 9 highlighted collaborative efforts to "*co-create activity sheets based on lesson exemplars,"* while Participant 11 credited contextualized activity sheets for bridging "*policy and practice, especially for students in rural areas.*" Participant 14 further shared that capacity-building emphasized *"spiral progression and integration across science topics,"* reinforced through demo lessons. These accounts echo recent findings that peer mentoring and coaching strengthen teachers' confidence, professional identity, and efficacy in reform or under-resourced settings (Mulingtapang, L. G., & Astillero, J. A. (2025)[42].

Perceptions of Training Effectiveness and Relevance

Teachers' perceptions of DepEd-led training programs revealed a mixture of appreciation and critique. For some, the programs were helpful but time-constrained. Participant 1 found sessions "*helpful but too brief*," while Participant 4 described them as "*rushed, with sessions packed into short timeframes*." Participant 11 confirmed that while competencies were clarified, there was "*little time for teachers to ask questions and practice strategies."*

Others perceived the training as theory-heavy and lacking practical application. Participant 2 remarked that the sessions "*lacked depth and practical application*," while Participant 9 observed that concepts were "*discussed at an abstract level without enough concrete examples."* Participant 17 further noted that while training was "*effective in theory, it was not always practical*" in contexts of large class sizes and limited time. Concerns about resource gaps and rural limitations were also raised. Participant 3 shared that materials were "*not classroom-ready, needing significant adjustment*," and Participant 5 explained that examples were "*not always applicable to rural contexts*." Participant 12 echoed this, stressing that while exemplars were useful, they were difficult to apply in settings "*with limited facilities*."

Teachers also lamented the lack of demonstration and subject-specific depth. Participant 6 noted that "*demo teaching sessions were missing*," and Participant 13 recommended "*more hands-on workshops rather than lectures*." Participant 14 described the training as "*moderately effective,"* pointing out the lack

of "*science-specific depth*." Finally, repetition and delivery challenges were highlighted. Participant 7 felt the training was "*somewhat repetitive*," while Participant 15 mentioned "*technical issues during online sessions."* Participant 19 criticized "*repetitive content from previous orientations"* and suggested more problem-solving approaches.

Despite these limitations, many participants valued peer-led and collaborative learning. Participant 10 found training "*most effective when delivered by fellow teachers*," while Participant 18 appreciated sessions that "*aligned with actual classroom practices*." Participant 20 emphasized that such training was "*effective in building collaboration among teachers."*

Most and Least Helpful Forms of Support

The most helpful supports centered on peer collaboration, administrative encouragement, and practical materials. Participant 1 cited "*peer support as the most helpful,"* while Participant 13 valued "*peer mentoring and collaborative planning sessions."* Participant 3 and Participant 9 highlighted the role of school administrators, with Participant 9 stating that "*encouragement of school heads boosted morale*." Participant 12 pointed to administrative flexibility, including budget allocation for printing modules. Practical materials were equally important. Participant 5 found "*printed materials the most helpful,"* while Participant 11 stressed that "*lesson exemplars and activity sheets aligned with competencies saved preparation time*." Participant 17 mentioned "*provision of LRMDS-based modules,"* and Participant 20 emphasized access to school printers and photocopying services.

The least helpful supports are often related to ICT limitations, generic content, and resource gaps. Participant 2 and Participant 6 noted poor ICT support and weak connectivity. Participant 4 and Participant 14 critiqued the training for being "*too generic*" and lacking contextualization. Participant 13 pointed to "*absence of updated laboratory equipment,"* while Participant 16 mentioned delays in material distribution. Participant 20 noted uneven resource distribution across subjects, leaving Science at a disadvantage.

How Teachers Would Redesign Training

Teachers suggested a more practical, contextualized, and sustained training design. Many emphasized hands-on and demonstration-based learning. Participant 1 recommended "*classroom simulations*," while Participant 3 called for "*actual demo lessons."* Participant 11 stressed "more hands-on and demonstration-based" strategies, and Participant 16 suggested "*laboratory-based training sessions*" with low-cost experiments. They also emphasized contextualization and local relevance. Participant 4 proposed "*using examples from local schools*," while Participant 13 recommended "*school-based contextualization workshops."* Participant 19 added that framing lessons in "*Filipino culture and daily life"* would aid transfer to students.

A recurring suggestion was modular, spaced, and differentiated delivery. Participant 5 suggested "*breaking content into manageable modules*," while Participant 12 preferred shorter but more frequent sessions. Participant 17 argued for differentiation, with "*new teachers needing step-by-step guides,"* while veterans could benefit from advanced methods. Finally, teachers emphasized post-training support and feedback. Participant 8 suggested "*post-training coaching,"* Participant 18 recommended "*classroom visits or online check-ins,"* and Participant 10 proposed "*feedback surveys at the end of each training."* These recommendations align with more recent research (Merino, Pacheco, Arenas-Martija, Becerra, & Solís-Pinilla, 2025)[43], which underscores that effective professional development is sustained, contextually relevant, collaborative, differentiated, and includes follow-up support.

Teacher Collaboration and Networking

Collaboration was sustained through both digital and in-person mechanisms. In terms of digital platforms, Participant 1 relied on "*Messenger group chats*," Participant 3 used "*Google Drive*," and Participant 6 co-developed lessons via "*Google Docs*." Participant 8 and Participant 13 joined "*Facebook groups and online communities*," while Participant 19 engaged with "*DepEd Commons and LRMDS forums*." School-based collaboration also thrived. Participant 2 attended "*LAC sessions and Zoom check-ins*," while Participant 5 described "*weekly planning meetings*." Participant 11 highlighted "*school-based LACs as a safe venue*," and Participant 12 stressed informal collaboration in the faculty room.

Peer mentoring and reciprocal learning further strengthened professional growth. Participant 7 mentioned "*peer mentoring from experienced teachers*," while Participant 16 explained that she mentors juniors, who in turn introduce her to new digital tools. Participant 17 pointed to "*peer observations*" as a method of reciprocal learning. Networking also extended to inter-school and division-level platforms. Participant 4 joined "*district-level forums*," Participant 14 valued "*inter-school clusters organized by the division,"* and Participant 20 benefited from networking during "*division-level trainings*."

Finally, informal peer-led exchanges sustained morale. Participant 9 described "*teacher circles formed informally,"* while Participant 10 emphasized "*casual sharing during breaks."* These organic collaborations align with Vangrieken et al. (2015)[44], who stress that both formal and informal professional learning communities are crucial in sustaining reforms.

3.3 Influence of Curriculum Reform on Teachers' Instructional Strategies, Assessment Methods, and Student Engagement in Science Class

From Lecture to Inquiry, Discovery, and Contextualization

Many participants described moving away from rote, lecture-driven lessons toward methods that stimulated curiosity and deeper engagement. Participant 4 explained: "I now begin lessons with inquiry-based questions to stimulate curiosity." Similarly, Participant 11 emphasized discovery learning: "*I guide students through discovery-based learning using simple experiments and problem scenarios*." These approaches reflect constructivist theory (Piaget, 1973; Vygotsky, 1978)[45], who emphasized that learners actively construct knowledge through exploration and interaction.

Teachers also contextualized lessons to make learning more relevant. Participant 12 shared: "*I use the mangrove forest in our community as a case study*," while Participant 20 involved learners in "*investigating plastic waste problems around the barangay*." This echoes Gay's (2018)[46] culturally responsive pedagogy and Dewey's (1938)[47] advocacy for authentic, experience-driven learning.

Other teachers incorporated challenge-based activities. Participant 7 described: *"I designed challenge-based lessons that required students to complete tasks under constraints—this made them think critically and work together*." Such strategies align with recent findings (Caballero et.al, 2024)[48], which show that challenge-based learning and design thinking significantly enhance higher-order thinking skills, student autonomy, and collaborative competencies in higher education. Technology also featured prominently. Participant 15 noted: "*I use simulations, animations, and videos to explain complex processes like photosynthesis—it makes students understand better*." Meanwhile, Participant 16 stressed differentiated approaches: "*I tailor tasks depending on whether the student is struggling or advanced."* These strategies are consistent with Mayer's (2009)[49] who said that cognitive theory of multimedia learning and Tomlinson's (2014)[50] principles of differentiated instruction.

Assessment Innovations: From Rote Recall to Authentic Performance

Assessment practices also evolved, with teachers reporting a shift from memorization and paper-pencil tests toward authentic, performance-based evaluations. Participant 1 explained: "*I shifted to project-based assessments—students make models, presentations, or small experiments*." Participant 12 emphasized real-world applications: *"I assign community-based projects and reflective journals, so students see science in everyday life*."

Reflective practices became common. Participant 2 observed: "*Journals allow students to explain their understanding in their own words,"* while Participant 5 used portfolios to track progress. These align with Black and Wiliam's (2009)[51] principles of assessment for learning.

Peer and self-assessment also emerged. Participant 3 described: "*Students grade each other's outputs using rubrics—it makes them more reflective*." Similarly, Participant 6 highlighted: "*Self-checking activities help learners see where they went wrong*." Participant 18 echoed: "*Peer feedback encourages students to improve without feeling criticized."* This supports Boud and Falchikov's (2007)[52] arguments on metacognitive growth.

Rubrics and clear expectations were widely used. Participant 8 noted: "*Rubrics help students understand exactly what is expected."* Participant 14 said, "*I prepare success criteria in simple terms so they are guided,"* while Participant 17 emphasized fairness: "*Rubrics make grading more transparent and objective."* Brookhart (2013)[53] also emphasized the value of rubrics for consistent assessment.

Technology extended assessments Participant 15 explained: *"I give online quizzes and use simulations for practice tests."* Meanwhile, Participant 16 ensured inclusivity: "*I offer simplified versions of tasks for struggling students and extension activities for advanced learners."* These practices align with CAST's (2018)[54] Universal Design for Learning principles.

Student Reactions: Enthusiasm, Adjustment, and Resistance

Students' responses to the learner-centered reforms were generally positive, though not without challenges. Participant 7 observed: "*Students showed excitement during experiments—they enjoyed the hands-on work*." Participant 10 added: "*They were more motivated when tasks involved real-world connections."* These outcomes reflect Deci and Ryan's (2000)[55] self-determination theory, where autonomy and relevance enhance intrinsic motivation. Learners also valued feedback. Participant 19 shared: "*They appreciated being able to revise and resubmit work based on my feedback."* This echoes Dweck's (2006)[56] growth mindset framework, which emphasizes improvement over perfection.

However, difficulties also surfaced. Participant 8 reported: "*Some students resisted—they still preferred multiple-choice exams."* Participant 13 noted: "*Performance tasks stressed out some learners—they found them harder than tests*." Participant 19 added: "*Continuous assessments overwhelmed students at times*."

Group dynamics created tension. Participant 14 explained: "*Introverted students were hesitant in group work."* Meanwhile, Participant 16 observed: "*Fast learners grew impatient waiting for slower classmates."* These reactions support Fullan's (2007)[57] insight that reforms are disruptive and require gradual adjustment to learner diversity.

Changes in Student Participation and Performance

Teachers reported significant changes in classroom participation and performance. Participant 11 highlighted: "*Even quiet students started volunteering during group discussions."* Participant 2 observed: "*Participation increased during interactive tasks—more hands were raised compared to before*."

Academic outcomes improved in quality and depth. Participant 10 noted: "*Students developed better presentation skills,"* while Participant 13 emphasized: "*They became stronger in problem-solving and*

applying science concepts." These observations echo Freeman et al. (2014)[58], who found active learning improves STEM outcomes.

Yet, disparities widened. Participant 12 reported: "*High achievers excelled even more, but struggling learners lagged further behind."* This reflects Vygotsky's (1978)[59] zone of proximal development, underscoring the need for scaffolding and differentiation.

Effective Strategies for Engagement

Teachers identified several strategies that worked best to sustain engagement. Participant 1 used competitions: *"Games like quiz bees make science fun and exciting*." Participant 9 incorporated gamification: "*Escape-room reviews make them eager to participate."* These align with Gee's (2003)[60] argument that games motivate through challenge and reward. Outdoor and real-world learning also proved effective. Participant 2 explained: *"We do fieldwork outside the classroom, like soil testing."* Participant 20 shared: "*Problem-solving projects on community issues engaged them more than lectures*." These practices mirror Dewey's (1938)[61] and Kolb's (1984)[62] experiential learning principles.

Hands-on inquiry was repeatedly emphasized. Participant 11 noted: "*Simple experiments spark their curiosity."* Participant 17 shared: "*Hypothesis testing made them think more critically.*" Journals and reflective tasks were also valued. Participant 4 remarked: "*Reflection journals show me how students internalize lessons*." Participant 5 added: "*Student-led tasks gave them ownership of learning*."

Creative strategies were equally effective. Participant 7 said, "*Debates encourage critical thinking.*" Participant 8 incorporated role-playing: "*Students enjoyed acting out scientific concepts."* Participant 10 used station-based learning: "Rotating activities made lessons dynamic." These align with Johnson and Johnson's (1999)[63] cooperative learning framework.

Finally, technology-enhanced inclusivity. Participant 15 shared: "*Simulations helped those struggling with abstract concepts."* Participant 16 reiterated differentiation: "*I adjust tasks depending on abilities."* Participant 14 concluded: "*Project-based activities allowed them to apply what they learned in authentic contexts*."

3.4 Challenges and Opportunities Emerged in Aligning Classroom Practices with the Curriculum's Policy Directives

How Teachers Perceive the Clarity and Practicality of Curriculum Policies Provided by DepEd

Teachers expressed mixed perceptions regarding the clarity and practicality of DepEd's curriculum policies. Several acknowledged that competencies and standards were clearly outlined. For example, Participant 11 noted that policies are "*generally clear in outlining learning competencies,"* and Participant 20 described the MATATAG Curriculum as offering a *"clear vision of competency-based learning*." These responses align with the OECD (2019)[64], which stresses that clarity in curricular frameworks helps establish a shared instructional vision. However, practicality was a recurring issue. Participant 18 admitted that implementation becomes difficult when "*assessment tasks require resources not always accessible,"* while Participant 12 found that "*some competencies seem too broad*." This reflects Darling-Hammond et al. (2017)[65], who argue that clarity alone is insufficient if teachers lack resources and training to enact policy in authentic classroom contexts.

Other teachers cited vagueness and jargon. Participant 1 described policies as "*somewhat vague*," while Participant 7 lamented the "*complex, jargon-filled language*." These frustrations resonate with Ball, Maguire, and Braun (2012)[66], who emphasize that teachers experience "*policy enactment*" differently, depending on how accessible and practical documents are written. Contextual realities further shaped

teacher perceptions. Participant 4 explained that policies *"are not always classroom-friendly*," especially in overcrowded schools, while Participant 13 argued that "*urban and rural schools operate under different conditions.*" Such concerns are echoed by Fullan (2007)[67], who contends that reforms often overlook local contextual diversity, creating a mismatch between policy intent and classroom execution.

Yet, optimism persisted. Participant 9 recognized that "*some policies are practical,*" particularly those supporting flexibility, while Participant 13 valued their *"student-centered"* intentions. This balance between challenges and opportunities reflects Spillane's (2004)[68] finding that teachers interpret curriculum policies through their own sense-making, mediating between structural clarity and classroom realities.

Situations Where Teachers Struggled to Interpret or Apply Specific DepEd Policies in Their Classrooms

Teachers reported struggles in curriculum design, particularly in interpreting MELCs and spiral progression. Participant 1 admitted to confusion when *"integrating MELCs into lesson planning,"* while Participant 3 found the spiral progression "*confusing*." Participant 12 described uncertainty about lesson depth in topics like cell biology. These challenges resonate with Schmidt, Houang, and Cogan (2002)[69], who caution that spiraled curricula may lead to ambiguity without clear scaffolds and guidance.

Assessment was another problematic area. Participant 2 found "*grading performance tasks"* difficult, while Participant 5 struggled with "*rubric design*" due to the lack of models. Participant 11 reported that her students "*lacked access to materials*," hindering authentic assessment. Wiggins (1998)[70] similarly warned that authentic assessment must be supported by resources and clear rubrics to ensure fairness and validity. Instructional strategy implementation also proved difficult. Participant 14 described inquiry-based learning as "*chaotic"* with 50 students, while Participant 15 found differentiated instruction "*overwhelming."* Tomlinson (2014)[71] affirms this challenge, noting that differentiation demands careful planning and smaller class sizes to be effective.

ICT-related policies were particularly problematic in resource-constrained settings. Participant 13 emphasized the lack of *"computers and stable internet*," while Participant 8 struggled to create "*policy-compliant and learner-friendly*" modules. This reflects Zhao and Frank (2018)[72] findings that technology-driven reforms are only as effective as the infrastructure and teacher preparation supporting them. Finally, many teachers criticized the lack of concrete examples. Participant 10 noted frustration with the "*absence of sample outputs,"* echoing Oakes (1992)[73], who highlighted that without practical exemplars, teachers risk interpreting reforms inconsistently across contexts.

The Tensions Teachers Face When Trying to Balance Curriculum Requirements with Real Classroom Situations

Time was one of the most pressing tensions. Participant 1 described a "*major conflict between limited instructional time and high demands for quality output,"* while Participant 11 admitted to choosing between "meeting deadlines or ensuring understanding." This reflects Cuban's (1990)[74] long-standing observation that time constraints often push teachers toward traditional coverage rather than deep learning.

Resource gaps worsened these tensions. Participant 2 cited a "*lack of materials,"* and Participant 5 noted "*broken science tools*." Participant 4 described *"internet limitations,"* particularly in rural schools. Darling-Hammond (2010)[75] similarly argued that resource inequality undermines reform implementation, especially in public schools serving disadvantaged learners.

Differentiation was another stress point. Participant 20 shared that balancing inclusivity with curriculum speed was her "*biggest struggle*." Participant 14 noted the difficulty of aligning authentic assessments with *"students' varied abilities*." Vygotsky's (1978)[76] zone of proximal development framework

highlights why scaffolding is necessary to bridge diverse readiness levels—yet often absent in resource-limited classrooms. External factors added further strain. Participant 9 described "*parental resistance*," while Participants 10 and 16 cited "*paperwork overload*." These echo Fullan (2007)[77] who stresses that teacher workload and community dynamics play significant roles in shaping reform success. Lastly, some teachers pointed to conflicting assessment goals. Participant 19 noted the tension between "*standardized tests and fostering critical thinking*," reflecting Shepard (2000)[78], who argued that accountability pressures often undermine authentic, inquiry-driven assessment.

How Teachers Believe Curriculum Policymakers Could Better Support Classroom Implementation

Teachers proposed several forms of policy support. Clearer and more contextualized tools were widely requested. Participant 1 suggested "*sample lesson plans*," while Participant 10 called for "*sample assessments and rubrics*." Brookhart (2013)[79] emphasizes that concrete examples strengthen teacher understanding and improve assessment reliability.

Mentorship and training were also stressed. Participant 2 recommended *"mentorship programs*," and Participant 12 emphasized "*continuous professional development."* Desimone (2009)[80] confirms that sustained, collaborative professional learning is key to effective reform implementation. Localized and equitable approaches were another need. Participant 7 requested "*localized examples*," while Participant 13 argued for "*equitable resource distribution*." This reflects Gay's (2018)[81] culturally responsive pedagogy, which insists that policies must align with community contexts to be effective. Infrastructure support was equally critical. Participant 17 urged policymakers to "*invest in laboratory facilities*," while Participant 14 called for "*smaller class ratios*." OECD (2019)[82] supports this, stressing that policy alignment with resource provision is non-negotiable for sustainable reforms.

Lastly, teachers highlighted the need for teacher voice. Participant 5 advocated for "*direct consultations with policymakers*," and Participant 19 requested stronger "*feedback mechanisms."* This aligns with Levin (2008)[83], who underscored that reforms are more successful when teachers are engaged as active stakeholders in policy processes.

Classroom Strategies Teachers Have Developed to Bridge Gaps Between Curriculum Policy and Daily Teaching Practice

Despite challenges, teachers developed creative strategies to reconcile policy expectations with realities. Collaboration was central: Participant 1 worked on *"peer collaboration,*" and Participant 4 promoted "*shared outputs*." Vescio, Ross, and Adams (2008)[84] found that collaborative professional learning communities improve teacher efficacy and instructional alignment. Localization strategies were widely used. Participant 2 created "*localized materials,"* and Participant 16 contextualized lessons with *"farming and fishing practices*." Gay (2018)[85] supported such approaches, noting that culturally relevant examples enhance student engagement. Flexible pacing was another coping mechanism. Participant 6 focused on *"prioritizing MELCs*," while Participant 11 designed "*modularized activities."* These align with Wiliam (2011)[86], who argued that formative, adaptive approaches allow teachers to address student needs while maintaining curricular alignment.

Teachers also turned to resourceful experimentation. Participant 7 used "*household items"* for science activities, while Participant 17 incorporated *"digital simulations*." Kolb's (1984)[87] experiential learning theory explains why such strategies are effective in promoting conceptual understanding. Differentiation and scaffolding featured prominently. Participant 15 used "*spiral questioning techniques*," while Participant 19 broke lessons into "*small, manageable tasks*." These practices reflect Tomlinson's (2014)[88] framework on differentiated instruction, which stressed adjusting content and process for diverse learners.

Assessment innovations were another response. Participant 9 emphasized "*regular student feedback,"* while Participant 18 simplified grading through "*checklist-based assessments."* Black and Wiliam (2009)[89] affirmed that feedback-centered approaches are powerful tools for learning, especially under curriculum reform.

Finally, blended approaches integrated multiple strategies. Participant 14 combined "*short lectures, guided discovery, and performance tasks*." This resonates with Hmelo-Silver (2004)[90], who found that hybrid pedagogies provide a balance between structure and exploration in inquiry-based science learning.

3.5 Coping Mechanisms or Innovations Teachers Developed to Bridge Gaps Between Curriculum Expectations and Classroom Realities

Creativity and Resilience in the Face of Resource Limitations

One of the most pressing challenges highlighted by participants was the lack of science equipment and laboratory facilities. Participant 1 explained how they "*found alternative ways to demonstrate experiments using improvised or visual tools*," while Participant 11 relied on household items such as vinegar and baking soda. Similarly, Participant 7 used recycled bottles, soil, and water to approximate scientific processes, and Participant 14 stressed that improvised tools were "*better than doing nothing*," since they sustained student engagement despite limited resources.

Other participants emphasized visualization when experiments were not feasible. Participants 3 and Participant 12 described using pictures and models as substitutes for actual laboratory work. For Participant 9, improvised flashcards and posters became central tools in reinforcing lessons, while Participant 15 crafted contextualized worksheets and learning modules to substitute for unavailable textbooks.

These responses demonstrate what Schweisfurth (2011)[91] calls "*adaptive learner-centeredness,"* in which teachers reimagine curriculum goals within resource constraints. The participants' collective improvisation echoes Fullan's (2016)[92] notion of the implementation gap, where the vision of inquiry-based pedagogy collides with underfunded realities. Instead of succumbing to limitations, teachers displayed resilience and creativity, embodying Ball et al.'s (2012)[93] who stated that idea of teachers as policy enactors who reinterpret curriculum mandates to make them workable in local settings.

Navigating Time Constraints and Instructional Load

Participants frequently pointed to the heavy demands of teaching under the Revised K–12 and MATATAG curricula. Participant 2 admitted struggling with "*large class sizes and time pressure,"* which often forced them to simplify activities. Participant 5 echoed this sentiment, noting that grading requirements and administrative paperwork sometimes *"left little time for creative instruction*." Similarly, Participant 10 described the stress of handling performance-based assessments while keeping up with pacing guides. Others actively adjusted strategies to cope. Participant 8 shortened experiments and focused on key competencies to meet time constraints. Participant 4 mentioned streamlining grading rubrics to reduce unnecessary complexity, while Participant 13 highlighted how peer collaboration lightened workloads.

These findings resonate with Tyack and Cuban's (1995)[94] description of reforms as often "layered" onto existing structures, which burdens teachers rather than easing practice. Pimentel (2021)[95] similarly observed that Filipino teachers experience policy fatigue, having to balance bureaucratic tasks with meaningful instruction. The teachers in this study reflected fatigue but also demonstrated adaptability by redesigning lessons and requirements to remain student-centered. Their responses highlighted that

resilience is not only about coping with shortages but also about finding practical ways to manage overloaded schedules.

Responding to Classroom Realities and Learner Diversity

Teachers' narratives revealed that learner diversity and classroom realities shaped how they enacted the curriculum. Participant 6 emphasized the difficulty of handling "mixed-ability learners," requiring them to use peer tutoring to ensure struggling students kept up. Participant 2 mentioned adjusting pacing when students had inconsistent attendance, while Participant 12 highlighted the importance of group leadership roles to distribute responsibility. Meanwhile, Participant 14 localized science content, citing rivers, plants, and markets familiar to students as entry points for lessons. Participant 9 also contextualized instruction, creating materials in the local dialect to ensure comprehension.

These adaptations align with Hargreaves and Fullan's (2020)[96] argument that diversity required teacher judgment rather than uniform solutions. By modifying instruction, participants enacted what Pantić (2015)[97] called teacher agency for social justice, ensuring that students from different backgrounds had equitable access to learning. The participants' responses collectively show how teachers balanced curriculum expectations with the lived realities of their classrooms.

Technology Integration and Digital Adaptation

Participants expressed both struggles and successes in integrating technology. Participant 3 admitted, "*I was not tech-savvy at first, so I really had to self-learn how to use PowerPoint and video lessons*," while Participant 8 shared that lack of student internet access pushed them to provide "*offline alternatives like printed modules with QR codes."* Similarly, Participant 12 relied on collaboration, explaining, "*I asked younger teachers to guide me with using apps like Kahoot and Quizizz."*

In contrast, others found opportunities for innovation. Participant 6 highlighted, *"Students became more engaged when I used interactive games*," and Participant 14 reported success in integrating localized videos, saying, *"I recorded science experiments in our school garden so students could rewatch at home.*" Participant 9 also experimented with blended learning approaches: "*I gave students the option to either answer online quizzes or submit written tasks."* These accounts mirror Darling-Hammond et al.'s (2020)[98] finding that equitable access and sustained training are crucial for ICT integration. Teachers like Participants 3 and 8 revealed the risks of inequity, while Participants 6 and 14 illustrated how digital creativity could enhance engagement. Their experiences show that technology reform succeeds when grounded in contextual adaptation and professional collaboration.

Shifting Pedagogies and Curriculum Demands

The shift toward learner-centered pedagogy and performance-based assessment was not seamless. Participant 5 confessed, "*I was used to traditional lectures, so moving to group activities was really challenging."* Similarly, Participant 10 admitted struggling with the workload of authentic assessments: *"Sometimes I had to reduce project requirements because students and teachers were both overwhelmed*." Yet other teachers embraced the change. Participant 7 emphasized, *"I started using inquiry-based methods, like asking students to design their own simple experiments*," while Participant 2 modified exams to focus on application: "*Instead of memorization, I now ask how they can apply science in real life."* Participant 11 also highlighted this shift, noting, *"Even with limited tools, I try to let students discover answers themselves*." Schweisfurth (2011)[99] argued that learner-centered reforms succeed when teachers adapt them incrementally to context. The participants' responses reflect this gradual adaptation, showing both resistance and transformation. Teachers balanced curriculum goals with student needs, enacting

Fullan's (2016)[100] idea that meaningful change requires both top-down guidance and bottom-up innovation.

Creative Adaptation of Teaching Materials

Several teachers took on the role of material designers. Participant 9 explained, "*I made my own flashcards and posters since the school lacked visual aids*." Similarly, Participant 15 developed localized modules, stating, "*I prepared contextualized worksheets because students couldn't always rely on the given textbook."* Others emphasized visual and language adjustments. Participant 3 created "*illustrated handouts to simplify abstract concepts*," while Participant 12 noted, *"I translated science terms into the local dialect so learners could understand better*." Participant 14 localized materials: "*I used pictures of plants and rivers from our community so students could easily relate."*

These accounts align with SEAMEO-INNOTECH (2019)[101], which emphasizes contextualized instruction as a way to make learning meaningful. By acting as curriculum designers, teachers displayed what Ball et al. (2012)[102] describe as policy enactment—transforming official prescriptions into culturally responsive classroom realities.

Innovation in Teaching Strategies

Innovation emerged as a hallmark of participants' responses. Participant 4 emphasized gamification: *"I used games like science bingo to make lessons interactive."* Participant 6 turned to storytelling: *"I made stories about atoms and cells so students could imagine the processes."* Participant 11 created science comics: "*Drawing comics made the students laugh and learn at the same time."* Others emphasized project-based and reflective approaches. Participant 2 localized projects, sharing, "*We investigated water quality in the nearby river*," while Participant 10 introduced reflective journals: "*Students wrote what they understood in their own words, and I learned how they thought."*

As Ocampo and Alinsunurin (2022)[103] note, Filipino teachers often engage in "*creative navigation"* of reforms, expanding the scope of activities beyond policy prescriptions. These innovations mirror global calls for competence-based education that fosters creativity, critical thinking, and collaboration (Darling-Hammond et al., 2017)[104].

Managing Workload, Stress, and Emotional Well-Being

Teachers' coping strategies reflect the personal side of reform. Participant 5 shared, *"I learned to set boundaries and not bring unfinished work home."* Participant 13 emphasized collaboration: "*Sharing tasks with co-teachers really helped me cope with stress."* Similarly, Participant 15 stressed mindfulness: "*I practiced deep breathing before classes when things felt overwhelming."*

Others highlighted positivity and resilience. Participant 7 remarked, "*Celebrating small wins, like a student finally understanding a concept, kept me motivated*." Participant 1 echoed this with, "*Even when resources were lacking, I reminded myself why I teach*." These voices support recent findings of Zhang & Luo (2025)[105] that teacher resilience and well-being are deeply connected, especially through self-efficacy, pedagogical competence, and coping practices. While reforms often overlook the human dimension, participants' strategies highlight resilience as both professional and personal practice.

Advice for Fellow Teachers During Curriculum Reform

The participants' advice reflects collective wisdom gained through lived experiences of navigating curriculum shifts. A recurring theme was flexibility and adaptability, seen as essential survival skills in a constantly changing educational landscape. Participant 1 urged peers to "*stay flexible and creative*," emphasizing that effective innovation does not depend on costly tools but on "*imagination and heart*." Similarly, Participant 6 stressed the importance of contextual responsiveness: "*Adjust based on the unique*

needs of students, rather than rigidly sticking to plans." Participant 7 added that teachers should "*embrace change and seek help*," framing adaptability as a form of professional growth rather than a burden. This aligns with Fullan's (2016)[106] notion that educational change requires openness to uncertainty and iterative practice.

Collaboration was another widely shared piece of advice. Participant 3 reminded colleagues that they "*don't need to work in isolation*," highlighting the necessity of collegiality. Participant 12 specifically endorsed LAC sessions and informal exchanges: "*Collective problem-solving makes the transition easier*." Participant 17 expanded this to professional growth opportunities, recommending "*continuous professional development through seminars, updated readings, and online communities."* These reflections resonate with recent findings of Zhou et.al (2024)[107] that peer support, professional learning communities, and shared practice enhance teacher resilience and strengthen professionalism in reform contexts. At the same time, many participants urged teachers to keep students at the center of reforms. Participant 4 recommended focusing on "*what students enjoy,"* while Participant 10 reminded peers to "*always put students at the center*" since their growth is the ultimate purpose of teaching. Participant 16 advocated for contextualization, stating, "*Lessons should align with real-life applications*." Meanwhile, Participant 19 encouraged participatory strategies: "*Involve students in experiments, group work, or project-based learning.*" These insights echo Darling-Hammond and Oakes (2019)[108], who argue that reforms achieve meaningful impact only when pedagogy prioritizes learner engagement and agency.

Equally important was advice on simplicity, clarity, and patience. Participant 5 stressed giving "*simple and clear instructions*" to reduce confusion, while Participant 13 recommended "*starting small and being consistent*" rather than rushing into multiple strategies at once. Participant 15 emphasized the human dimension, urging teachers to practice "*patience and compassion for both students and themselves*." These reflections align with Schweisfurth's (2011)[109] reminder that reforms in resource-constrained settings must avoid overcomplexity, instead building on practical, incremental improvements. Some participants highlighted leveraging tools and resources. Participant 14 recommended the use of technology, advising teachers to use "*digital tools like Google Classroom, H5P, and Canva"* to streamline tasks and make lessons more engaging. Participant 9 emphasized experiential learning, noting that "*learning from experience is more valuable than relying only on theory."* These insights show that both technological and practical wisdom are crucial for effective adaptation (Darling-Hammond et al., 2020)[110].

Finally, teachers emphasized the importance of well-being and a positive mindset. Participant 8 highlighted, "*Prioritize mental health—sustainable teaching requires a balanced mind."* Participant 20 encouraged perspective-taking: *"Focus on the bigger picture. Remember that reforms aim to improve education quality, and our mission is to shape learners."* These sentiments echo recent findings of Pan et.al (2023)[111] that teacher well-being, autonomy, and workload are key predictors of sustainable reform implementation and that professional development must integrate well-being supports.

Taken together, the advice of the participants underscores that successful curriculum reform is not solely about compliance with policy but about professional adaptability, collaboration, and a sustained focus on student learning and teacher well-being. Their reflections demonstrate that teachers are not passive implementers but active agents of change, embodying the dual role of learners and leaders in navigating reform.

IV. CONCLUSION

1. Grade 7 Science teachers successfully adapt to pedagogical changes by shifting toward learner-center

ed, inquiry-based, and contextualized teaching approaches that enhance student engagement and understanding.
2. DepEd training and support are valuable but limited, underscoring the need for longer, more practical, pragmatic and science-specific capacity-building opportunities.
3. The curriculum reform reshapes teachers' instructional strategies and assessment practices, fostering authentic learning experiences, though it also places heavy demands on teachers' time and resources.
4. Challenges such as limited resources, large class sizes, and mismatches between policy and classroom realities hinder implementation, yet opportunities for innovation and professional growth emerge.
5. Teachers demonstrate resilience and creativity through coping mechanisms such as improvisation, contextualization, collaboration, and differentiated strategies, proving that they are not passive implementers but active agents of reform.

V. RECOMMENDATIONS

1. Strengthen teachers' capacity in implementing the Revised K–12 Curriculum by providing sustained, practical, and science-specific professional development programs that emphasize learner-centered, inquiry-based, and contextualized teaching strategies suited to diverse classroom settings.
2. Enhance the effectiveness of DepEd support systems by designing longer, pragmatic and context-responsive training sessions supplemented with localized exemplars, peer mentoring, and Learning Action Cell (LAC) activities that address the unique challenges of both urban and rural schools.
3. Ensure equitable access to quality Science instruction by allocating sufficient funding for laboratory tools, ICT infrastructure, and locally developed learning materials that support authentic, project-based, and performance-driven assessment practices.
4. Streamline administrative tasks and ensure that policy implementation reflects actual classroom conditions, enabling teachers to devote more time to innovative instruction, contextualized lesson design, and meaningful student engagement.
5. Promote teacher resilience and well-being by institutionalizing psychosocial support, mindfulness programs, and collaborative school environments that foster motivation, creativity, and sustained commitment amid curriculum changes.

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