

Culturally Responsive Leadership and Technology Utilization in Diverse Educational Settings

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Abstract- This study explored how culturally responsive leadership influences technology utilization in diverse educational settings. Specifically, it described the practices, experiences, and challenges of secondary school teachers and school heads regarding culturally responsive leadership and technology utilization in culturally diverse classrooms. This employed a narrative qualitative research design to interpret the lived experiences, ideas, and perspectives of the participants. The study concluded that school leaders and teachers play complementary roles in fostering inclusive, equitable, and learner-centered educational environments that support students' academic and holistic development. Their collaborative efforts contribute to effective technology utilization and culturally responsive teaching practices. The study also concluded that technology utilization enhances student engagement, collaboration, participation, and meaningful learning experiences when supported by strong leadership, adequate resources, and continuous professional development. However, school leaders and teachers continue to face challenges such as limited ICT resources, inadequate infrastructure, insufficient training, and issues related to equity and access, which affect the effective implementation of technology utilization. Furthermore, the successful technology utilization requires strong leadership, institutional support, stakeholder collaboration, and sustained professional development. Based on these conclusions, the study recommended strengthening collaboration among school leaders, teachers, and policymakers to promote equitable, ethical, and inclusive technology-supported learning environments for diverse learners.

Keywords: *Culturally Responsive Leadership, Technology Utilization, Diverse Educational Settings*

I. INTRODUCTION

Educational systems in the 21st century are shaped by two powerful and intersecting forces: increasing learner diversity and rapid technological advancement. Schools are no longer defined by

uniform student populations; instead, they reflect a complex mix of cultural identities, languages, socio-economic backgrounds, and learning needs. At the same time, advances in digital technologies have transformed instructional delivery, communication, and assessment practices. These global shifts demand leadership approaches that are both inclusive and innovative. Educational leaders worldwide are expected to create learning environments where all learners feel represented, respected, and supported while ensuring that technology is meaningfully integrated into teaching and learning processes.

The growing interconnectedness of societies has heightened cultural diversity in schools, making inclusive leadership practices more essential than ever. School leaders are increasingly expected to recognize the unique cultural experiences of learners and ensure that school practices, policies, and instructional approaches promote equity and inclusion. Culturally responsive leadership encourages collaboration among teachers, families, and communities while fostering a school climate that values diversity as a strength rather than a challenge. Through inclusive leadership practices, schools become more responsive to the academic, social, and emotional needs of students from different cultural backgrounds.

At the same time, technology utilization has become an essential component of modern education, providing opportunities to improve access to information, enhance student engagement, and support flexible learning experiences. Digital tools can help bridge communication gaps, personalize instruction, and encourage collaborative learning among culturally diverse learners. However, effective technology utilization depends not only on the availability of resources but also on the leadership

practices that guide its implementation. According to the Organization for Economic Co-operation and Development (OECD) Digital Education Outlook 2021, successful digital transformation in education requires technology practices that are equitable, inclusive, and responsive to learners' cultural and contextual realities. Similarly, Arambula (2023) emphasized that school leaders leverage transformational leadership to guide the ethical and inclusive use of technology while addressing racial, linguistic, and digital inequities.

These perspectives highlight the growing international emphasis on leadership that balances cultural responsiveness with strategic technology utilization. According to A4ID (2022), Sustainable Development Goal (SDG) 4.5 aims to eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations by 2030. This goal further emphasized that:

“Measurement of progress towards this target involves comparing education indicators for different groups. For instance, female/male, urban/rural, richest/poorest, as well as other factors that could impact an individual's access to quality education, such as disability status. This will be done as the data becomes available. The greatest challenge for achieving equitable education appears to be disparities in wealth.”

In the Philippine context, diversity is evident across regions due to differences in language, culture, socio-economic conditions, and access to educational resources. The transition to flexible and technology-supported learning modalities, particularly during and after the COVID-19 pandemic, exposed disparities in infrastructure, digital literacy, and leadership readiness. While some schools were able to effectively integrate technology into instruction, others faced significant challenges due to limited resources and contextual constraints. School heads frequently encounter issues related to varying staff readiness, limited funding for technological resources, and inadequate infrastructure (Washington, 2021). These realities underscore the

importance of leadership that is both culturally responsive and technologically competent in ensuring inclusive and effective learning experiences for Filipino learners.

Relevant Philippine educational policies further emphasize the need for inclusive and technology-supported educational practices. The Department of Education's Inclusive Education Policy Framework (DepEd Order No. 72, s. 2009) highlights the importance of addressing learner diversity through responsive educational approaches. In addition, DepEd Order No. 24, s. 2022, which adopted the Basic Education Development Plan (BEDP) 2030, promotes the utilization of technology and innovation to improve learning outcomes and educational access. International studies also affirm that school leaders' technological leadership significantly influences teachers' ability to integrate information and communication technology (ICT) into instruction, while culturally responsive leadership enhances student engagement, inclusivity, and participation in diverse classrooms (Khalifa, Gooden, & Davis, 2016). Collectively, these policies and studies emphasize the vital role of leadership in harmonizing cultural responsiveness and technology utilization in education.

In 2022, the Department of Education (DepEd) Region V issued several memoranda to strengthen Information and Communication Technology (ICT) integration in schools through initiatives such as the Adobe Certified Educator Training Program, the implementation of the “Charting Digital Citizens” tool, and the monitoring and validation of the DepEd Computerization Program (DCP) to ensure the effective utilization of ICT resources in schools (DepEd Region V, 2022). These initiatives demonstrate the region's commitment to promoting technology-supported learning and improving digital competence among educators and learners. However, despite these efforts, inequalities in access to educational resources remain evident. According to Bueno (2026), the most significant inequalities are associated with geographical location, particularly in terms of internet access and transportation expenses, while moderate inequalities are linked to disability, socio-economic status, and age. These realities highlight the continuing challenges in achieving

equitable access to technology and inclusive educational opportunities. In relation to the present study, these conditions emphasize the importance of leadership practices that are culturally responsive, inclusive, and capable of addressing diverse learner needs while promoting equitable and effective technology utilization in schools.

In the Division of Camarines Sur, schools continue to experience diverse educational realities shaped by varying socio-economic conditions, geographical locations, cultural backgrounds, and levels of access to technological resources. While efforts to strengthen ICT integration and inclusive educational practices are evident, some schools still encounter challenges related to internet connectivity, availability of digital devices, teacher preparedness, and equitable access to technology-supported learning. In support of ICT integration, Division Memorandum No. 13, s. 2017, or the Division Information and Communication Technology (ICT) Policy in the DepEd Division of Camarines Sur, emphasized that:

“The Division of Camarines Sur recognizes that ICT has many benefits and can make workplace communication more efficient and effective. Therefore, employees are encouraged to use ICT properly.”

These initiatives reflect the division’s commitment to promoting responsible and effective technology utilization in educational settings. However, the continuing challenges related to access, infrastructure, and digital readiness highlight the important role of school leaders in promoting culturally responsive leadership practices that address learner diversity while ensuring inclusive and effective technology utilization. As one of the largest school divisions in Region V, the Division of Camarines Sur provides a relevant context for examining how leadership practices influence technology utilization and inclusive educational experiences in diverse school settings.

This study is significant to several stakeholders. For school leaders, the study may provide insights into leadership practices that support culturally responsive and technology-integrated learning environments. For

teachers, the study may contribute to a better understanding of how leadership support and inclusive practices influence effective technology utilization in diverse classrooms. Students may benefit from improved learning experiences that are more inclusive, engaging, and responsive to their cultural backgrounds and learning needs. Parents may gain a deeper understanding of the importance of collaborative and inclusive educational practices that support student development. External stakeholders, including policymakers and educational institutions, may use the findings as a basis for designing programs, policies, and interventions related to inclusive education and educational technology. Future researchers may also benefit from the study by using it as a reference for further investigations related to culturally responsive leadership, technology utilization, and inclusive educational practices.

Despite existing policies, international studies, and theoretical foundations, there remains limited local evidence on how culturally responsive leadership supports effective technology utilization in diverse educational settings. Differences in access to digital tools, educators’ digital competence, leadership approaches, and contextual realities continue to affect the implementation of technology in schools. Moreover, there is insufficient understanding of how school leaders’ cultural awareness, inclusive decision-making, and support for diverse learners influence technology utilization in teaching and learning processes. This gap highlights the need for localized research that examines the experiences and perspectives of school leaders and teachers within specific educational contexts. Therefore, this study was conducted to bridge this gap by exploring how culturally responsive leadership influences technology utilization in diverse educational settings, with the aim of providing evidence-based insights that may guide future educational policies, leadership practices, and technology utilization initiatives in schools.

Research Objectives

This study explored how culturally responsive leadership influences technology utilization in diverse educational settings.

Specifically, it attained the following objectives:

- 1) To identify the practices applied by school leaders and teachers in effectively implementing culturally responsive leadership.
- 2) To describe the experiences of school leaders and teachers with technology utilization in culturally diverse classrooms.
- 3) To explore the challenges encountered by school leaders and teachers in implementing technology utilization in diverse educational settings.
- 4) To develop policy recommendations based on the results of the study.

Scope and Delimitation

This section presents the scope and delimitation of the study, including the specific areas covered, the participants involved, and the boundaries set by the researchers. It describes the focus of the study on culturally responsive leadership and technology utilization in diverse educational settings to provide clarity on the extent and limitations of the research. The study is conducted in selected schools within the Division of Camarines Sur during the Summer of 2026.

This study described how culturally responsive leadership influenced technology utilization in diverse educational settings. Specifically, it explored: (1) the culturally responsive practices utilized by school leaders and teachers; (2) their experiences regarding technology utilization in culturally diverse classrooms; (3) the challenges encountered in implementing technology utilization; and (4) the policy recommendations developed based on the findings of the study. The study employed a narrative qualitative research design and utilized purposive sampling. Data were gathered through the lived experiences of five secondary school teachers and five school heads from the Division of Camarines Sur, as well as from related journals and published studies.

The study was delimited to culturally responsive leadership and technology utilization within diverse educational settings. Learners, parents, and other stakeholders were not included, and quantitative measures such as academic performance and technology usage rates were not covered. The study

excluded certain aspects of technology utilization, particularly those that are highly technical or quantitatively measured. It did not cover detailed system-level data such as ICT infrastructure performance analytics, network usage statistics, or software/hardware efficiency evaluations. Likewise, specific technical processes in advanced educational technologies (e.g., coding-based applications, learning management system backend configurations, and data-driven learning analytics dashboards) were not included. Classroom-level experimental comparisons of specific digital tools and their measurable impact on student achievement were also beyond the scope of the study, as the focus remained on qualitative narratives, experiences, and perceptions of school leaders and teachers.

Assumptions

This study was premised on the following assumptions:

- 1) School leaders and teachers utilize culturally responsive practices in diverse educational settings.
- 2) School leaders and teachers encounter challenges in implementing technology utilization in diverse classrooms.
- 3) Teachers and school leaders have varied experiences in using technology in culturally diverse classrooms.
- 4) The narratives and experiences gathered from the participants provide reliable information for developing policy recommendations.

Theoretical Framework

This study is anchored on the concepts of Cultural-Historical Activity Theory (CHAT) (Engeström, 1987, as discussed by Adler & Akad, 2024), Transformational Leadership Theory (Burns, 1978, as expanded by Arambula, 2023), and Cultural Intelligence Theory (Earley & Ang, 2003 as discussed by Rachmad, 2022). These theories help explain how educational leaders manage cultural diversity and technology utilization in today's diverse learning environments. With the rapid advancement of educational technology and the increasing diversity among learners. These theories provide a meaningful guide in understanding the relationship between culturally responsive leadership and effective technology utilization.

Cultural-Historical Activity Theory (CHAT). The first and the main theory supporting this study is Engeström's CHAT Theory or Cultural-Historical Activity Theory as discussed by Adler & Akad (2024). This theory explains that learning happens through social interaction, cultural experiences, and the use of tools such as technology. It highlights the connection among people, community, rules, and resources in achieving shared goals. In the educational context, technology serves as a tool that helps improve communication, collaboration, and learning experiences. However, successful technology utilization does not depend only on the availability of digital tools but also on how teachers, students, and school leaders work together within their cultural and social environment.

In this study, Engeström's CHAT helps explain how culturally responsive leadership can support meaningful and effective technology use in diverse educational settings. It provides a lens for understanding how school leaders, teachers, learners, and available technological tools interact within a shared activity system shaped by cultural norms, institutional policies, and community expectations. Culturally responsive leaders play a key role in aligning these elements by ensuring that rules, roles, and resources support inclusive and equitable technology utilization.

Transformational Leadership Theory. The study is also guided by Burns's Transformational Leadership Theory as expanded by Arambula (2023). This theory focuses on how leaders inspire and motivate people to work toward common goals and positive change. Transformational leaders encourage collaboration, innovation, and professional growth within organizations.

In relation to the present study, Burns's Transformational Leadership Theory, as expanded by Arambula (2023), provides a framework for understanding how school leaders influence the utilization of technology in diverse educational settings. The theory is relevant as it explains how transformational leadership behaviors, such as motivation, inspiration, collaboration, and support for innovation, can encourage teachers to integrate and

effectively use digital tools in instruction. In the context of this study, it helps explore how school leaders in the Division of Camarines Sur foster a positive and supportive environment that promotes technology adoption among teachers, ultimately contributing to improved instructional practices in culturally diverse classrooms.

Cultural Intelligence Theory. Another theory relevant to this study is Earley & Ang's Cultural Intelligence Theory (Rachmad, 2022). This theory explains a person's ability to interact and work effectively with individuals from different cultural backgrounds. It emphasizes awareness, understanding, adaptability, and appropriate behavior in multicultural settings. In schools, leaders with high cultural intelligence are more capable of understanding the unique backgrounds, traditions, and experiences of students and teachers.

In relation to this study, culturally responsive leaders need cultural intelligence to successfully implement technology utilization that considers the diverse needs and experiences of learners. Leaders with high CQ are better able to recognize that teachers and students come from varied cultural, linguistic, and socio-economic backgrounds that may influence how they access, perceive, and use technology in the classroom. This awareness allows them to make more thoughtful decisions in selecting digital tools, designing technology-supported instruction, and providing appropriate support systems that are inclusive and equitable.

Overall, these theories provide a strong foundation for understanding the connection between culturally responsive leadership and technology utilization in diverse educational settings. CHAT Theory explains the relationship between technology, culture, and learning, Transformational Leadership Theory highlights the role of leadership in promoting innovation and positive change, while Cultural Intelligence Theory explains the importance of cultural awareness and adaptability among leaders. Together, these theories support the idea that culturally responsive leadership plays an important role in promoting effective, inclusive, and equitable technology utilization in today's diverse educational environments.

Conceptual Framework

This study explored how culturally responsive leadership influences technology utilization in diverse educational settings. The secondary school heads and teachers served as the key participants of the study.

This study focused on the culturally responsive leadership practices of school leaders and teachers, as well as the challenges encountered and experiences shared in relation to technology utilization in culturally diverse classrooms. These data were gathered through a narrative inquiry approach that explored the lived experiences of school leaders and teachers, supported by related studies and journal articles.

This involved the collection, organization, and thematic analysis of qualitative data obtained from various sources. The narratives were examined to identify recurring themes on leadership practices, implementation challenges, and experiences in integrating technology in diverse educational settings. Through this process, the study also examined how culturally responsive leadership influences the implementation of technology utilization in schools.

The development of policy recommendations based on the analyzed findings was also given emphasis as an output of this study. Based on the findings of the study, a set of recommendation was crafted to support school leaders and teachers in addressing challenges and enhancing practices related to culturally responsive leadership and technology utilization. These policy recommendations aimed to promote inclusive, equitable, and technology-enhanced learning environments.

II. METHODOLOGY

This chapter presents the research design, participants of the study, research instrument, procedure of investigation, ethical considerations, and data analysis techniques used in exploring culturally responsive leadership and technology utilization in diverse educational settings.

Research Design

This study employed a narrative qualitative research design focusing on culturally responsive leadership and technology utilization in diverse educational settings. Narrative research was considered appropriate because it allows the researchers to explore and interpret the lived experiences, ideas, and perspectives of the participants in relation to how leadership practices influence technology utilization in culturally diverse settings. The study utilized purposive sampling in selecting the participants, particularly school leaders and teachers who could provide relevant and meaningful insights based on their experiences in diverse educational environments.

This is consistent with the study of Diaz et al., (2022) which used a qualitative method and Kato (2025), which also utilized a narrative approach in investigating the principles of culturally responsive leadership, its implementation in schools, and its impact on student engagement, academic performance, and community trust. It further examined the characteristics and strategies of effective culturally responsive leaders, discussed the benefits of CRL in promoting educational equity, and highlighted the professional development opportunities necessary for cultivating such leadership skills, reinforcing the suitability of narrative inquiry in capturing rich and in-depth educational experiences.

In line with the research objectives, data were gathered from lived experiences of the participants, multiple online journals, and published studies focusing on culturally responsive leadership and technology utilization. In addition, insights and observations obtained during class discussions and academic interactions were also included as part of the data sources. These sources were used to identify and describe the practices utilized by school leaders and teachers in implementing culturally responsive approaches, as well as to determine the challenges they encounter in technology utilization within diverse educational settings.

The collected information was carefully reviewed, organized, and analyzed through thematic narrative

analysis. This process enabled the researchers to describe the experiences of teachers and school leaders with technology utilization in culturally diverse classrooms by identifying recurring ideas, patterns, and significant narratives from the data. Furthermore, the synthesis of findings served as the basis for developing policy recommendations that address the observed challenges and support more effective implementation of culturally responsive leadership and technology utilization practices.

Overall, this narrative qualitative approach enabled the researchers to achieve the study's objectives by integrating findings from literature and experiential insights into a unified narrative that explains the influence of culturally responsive leadership on technology utilization in diverse educational settings.

Participants of the Study

The participants of the study consisted of five (5) secondary school teachers and five (5) school heads from the Division of Camarines Sur. They were selected to provide insights and share their lived experiences regarding culturally responsive leadership and technology utilization in diverse educational settings.

In selecting the participants through purposive sampling, specific inclusion criteria were considered to ensure the relevance and richness of the data. The school leaders and teachers must be currently employed in public secondary schools under the Department of Education during the Summer of 2026. They should have direct involvement in instructional supervision, classroom teaching, or school leadership functions that relate to the use of technology in teaching and learning. Additionally, they must have experience working in culturally diverse school environments where they have encountered and addressed varying learner needs, backgrounds, and contexts in relation to educational practices and technology utilization. The study is similar to that of Lovseth (2024), which is based on purposive sampling, with the assumption that the researcher seeks to gain in-depth insight into the context.

Research Instrument

The study utilized a semi-structured interview guide as the primary research instrument. The interview guide consisted of open-ended questions designed to gather the lived experiences, insights, and perspectives of school leaders and teachers regarding culturally responsive leadership and technology utilization in culturally diverse classrooms. The questions were aligned with the objectives of the study and focused on: practices applied in effectively implementing culturally responsive leadership, experiences in technology utilization in culturally diverse classrooms, and challenges encountered in implementing technology utilization in diverse educational settings. This is consistent with the study of Lovseth (2024), which also employed an interview guide and involved 5–10 participants through individual exit interviews to gather in-depth qualitative data.

Procedures of Investigation

To realize the objectives of this study, the following procedures were undertaken:

Conceptualization of the Research Problem.

The study began with the conceptualization of the research problem, which was developed based on the increasing need to understand how culturally responsive leadership influences technology utilization in diverse educational settings. The researchers, who were educators and PhD students, engaged in academic discussions, classroom experiences, and reflective learning activities throughout their course. As part of these activities, the researchers completed learning journals that allowed them to reflect on issues related to leadership, diversity, and technology utilization in education. These reflections, together with their observations of the varying practices of school leaders and teachers in integrating technology while addressing learner diversity, and the gaps identified in related studies, served as the basis for conducting a narrative qualitative study focusing on leadership practices, challenges, experiences, and policy implications.

Preparation of Research Instrument.

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Validation of the Instrument. After the preparation of the interview guide, it was subjected to validation to ensure clarity, relevance, and alignment with the research objectives. The instrument was validated by school leaders with PhD degrees who possess expertise in educational leadership and research. They reviewed the interview questions to determine whether these were appropriate for eliciting meaningful and in-depth responses from the participants. Revisions were made based on their recommendations to improve the clarity, relevance, and content accuracy of the instrument.

Dry Run of the Instrument. A dry run of the interview guide was conducted prior to the actual data gathering to test the flow, clarity, and comprehensibility of the questions. This process helped the researchers identify unclear items and refine the sequencing of questions to ensure that participants could easily understand and respond to them.

Administration of the Instrument. After validation and refinement, the semi-structured interview guide was administered to the selected participants, consisting of five (5) secondary school teachers and five (5) school heads from the Division of Camarines Sur. The researchers conducted individual interviews to gather in-depth qualitative data regarding their experiences, practices, and challenges in culturally responsive leadership and technology utilization in diverse educational settings.

Retrieval and Processing of Data. All interview responses and supplementary materials were carefully organized, transcribed, and reviewed. The researchers ensured that all data were relevant to the research objectives. The collected data were then prepared for thematic narrative analysis to identify

emerging patterns and themes related to leadership practices, challenges, and lived experiences.

Writing the research report. The researchers prepared the research report by organizing the findings into a clear and coherent narrative format. The study underwent several revisions to ensure clarity, consistency, and alignment with the research objectives. Feedback from the research adviser was incorporated to improve the quality of the output. The final research report presented a comprehensive narrative qualitative study on culturally responsive leadership and technology utilization in diverse educational settings.

Presentation of the thesis. The completed research output was formally presented to the panel of examiners for evaluation. During the presentation, the researchers discussed the background of the study, methodology, findings, conclusions, and recommendations. Questions and suggestions from the panel were addressed to further refine and strengthen the study before final approval.

Ethical Considerations

This study observed ethical standards appropriate for a narrative qualitative research design focusing on culturally responsive leadership and technology utilization in diverse educational settings.

Informed Consent. Prior to the conduct of the study, the researchers informed the participants about the purpose, objectives, and nature of the research. Participation in the study was voluntary, and the participants were given the freedom to withdraw at any stage without any consequences. The researchers ensured that the participants fully understood the study before securing their consent to participate.

Confidentiality and Anonymity. The researchers ensured that the identities of the participants and the information they provided were treated with strict confidentiality. Codes were used instead of real names to protect their identity and privacy. All responses, narratives, and shared experiences were reported objectively and respectfully without revealing personal information that could identify the participants.

Data Protection. All gathered literature, interview responses, and narrative insights were carefully reviewed and accurately represented, with thematic analysis grounded on credible and relevant sources. The researchers also ensured respect for intellectual property by properly acknowledging all online journals, published studies, and related literature used in the study. All ideas, findings, and theories from other authors were accurately cited to avoid plagiarism and maintain academic integrity. Furthermore, all collected data were securely stored and used strictly for academic and research purposes only.

Artificial Intelligence (AI). Artificial intelligence tools such as Microsoft Copilot, ChatGPT, Grammarly, and Gemini were utilized solely as grammar-checking and writing assistance tools to improve the clarity, coherence, and correctness of the written output. The use of AI did not involve the generation or fabrication of data, and all final interpretations, analyses, and conclusions were independently reviewed and validated by the researchers. Responsible reporting of findings was upheld by ensuring that conclusions and policy recommendations were based on established themes and factual evidence derived from the study.

Data Analysis Techniques

This study employed qualitative data analysis techniques consistent with a narrative research design focusing on culturally responsive leadership and technology utilization in diverse educational settings.

Thematic Analysis. The collected data from the lived experiences of the participants, online journals, published studies, and insights from submitted learning journals were subjected to document review and content analysis. Thematic analysis was utilized to interpret and make sense of the gathered information. The researchers repeatedly read and reviewed the data to identify significant statements, recurring ideas, and emerging patterns. These were then categorized into themes aligned with the research objectives, such as culturally responsive leadership practices, experiences in technology utilization, and challenges encountered in diverse educational settings.

Likewise, narrative synthesis was applied to integrate findings from various sources into a coherent discussion. Finally, the analyzed data served as the basis for developing conclusions and policy recommendations. Throughout the analysis, careful attention was given to ensuring that interpretations remained grounded in evidence drawn from credible and relevant sources.

ADDIE Model. The study also utilized selected phases of the ADDIE Model, specifically the Analyze, Design, and Develop (ADD) phases, in formulating the proposed policy recommendations. The Implementation and Evaluation phases were not included because the developed policy output had not yet undergone actual implementation and formal evaluation.

III. RESULTS AND DISCUSSION

Practices Applied by School Leaders and Teachers in Effectively Implementing Culturally Responsive Leadership

This section presents the practices applied by school leaders and teachers in effectively implementing culturally responsive leadership. It highlights how both leaders and teachers contribute to creating inclusive, equitable, and supportive learning environments in diverse educational settings. The discussion focuses on key strategies that promote cultural awareness, collaboration, and responsiveness in school and classroom practices.

School leaders play an important role in creating inclusive and supportive learning environments that value cultural diversity. Through culturally responsive leadership, they promote respect, equity, and collaboration among students, teachers, parents, and stakeholders. These practices help improve the school climate and support effective teaching and learning. School Head A emphasized the importance of understanding the unique context and diversity of the school community before implementing leadership decisions. The participant stated that: "As I move from one school to another, I make it a rule to spend a year observing and getting to know the place, my colleagues, and various school concerns. This allows me to understand everyone's differences in religion, perspectives, skills, and capabilities. During

my observation year, I keep everything undisturbed while ensuring things remain controlled and managed. After learning their differences, I lead democratically: every suggestion is heard, and I avoid making one-sided decisions.”

This response highlights the school head’s practice of inclusive and democratic leadership by valuing observation, understanding cultural diversity, and encouraging participatory decision-making within the school community. It implies that reflective, collaborative, and culturally sensitive leadership practices help promote equity, inclusion, and positive relationships within diverse educational settings.

The finding is supported by the literature, which states that school leaders effectively implement culturally responsive leadership by practicing reflective, inclusive, and collaborative leadership approaches that promote equity and diversity in schools. Byrd and Indar (2025) emphasized that continuous critical self-reflection enables leaders to examine their beliefs, identities, and biases to ensure that their decisions and actions align with culturally responsive and socially just practices.

This response is closely related to Rachmad’s Cultural Intelligence Theory (2022), which emphasizes the ability of individuals to interact and work effectively with people from diverse cultural backgrounds through awareness, understanding, adaptability, and appropriate behavior. The school head’s practice of inclusive and democratic leadership reflects high cultural intelligence by recognizing cultural diversity, valuing different perspectives, and encouraging participatory decision-making within the school community. Through reflective, collaborative, and culturally sensitive leadership practices, the school head demonstrates the capacity to foster equity, inclusion, and positive relationships in diverse educational settings, which are central principles of Cultural Intelligence Theory.

Likewise, School Head B highlighted the importance of supportive and collaborative leadership in promoting inclusivity and technology utilization within the school community. The respondent spoke with emphasis and used hand gestures as a sign of conviction while explaining the value of

encouragement, teamwork, and mentoring among teachers. According to the participant: “I don’t mandate; instead, I encourage creativity while assuring everyone that I am their backup when things fail. I promote unity, inclusivity, and harmony by fostering open dialogue, building collaborative teams where strengths complement one another, and modeling respect and fairness in every interaction. Proper utilization of technology in teaching promotes learner attention and participation, increasing the likelihood of achieving better educational outcomes. When teachers hesitate in the application of technology due to limited knowledge, I create a buddy system for mentoring purposes so that everyone can adopt and apply it confidently.”

The response demonstrates the school head’s practice of culturally responsive leadership through encouragement, collaboration, mentoring, and inclusive support systems that help teachers confidently integrate technology into the teaching and learning process. It implies that supportive and collaborative leadership practices strengthen teachers’ confidence, adaptability, and willingness to utilize technology in culturally diverse classrooms.

This finding supports the study of Akcil et al. (2021), which emphasized that school leaders should provide sustained professional development opportunities to enhance educators’ knowledge, skills, and confidence in culturally responsive pedagogy and technology utilization. Similarly, Washington (2021) noted that formal mentoring programs contribute to leadership effectiveness by developing culturally conscious leadership, reflective practices, and adaptive capacities among school administrators.

School Head C emphasized that culturally responsive leadership is effectively implemented through strong communication, collaboration, and guidance within the school community. As stated by the participant, “I also promote open communication and collaboration among teachers, parents, and stakeholders to strengthen relationships within the school community. I believe that understanding the learners’ experiences, culture, and individual differences helps improve teaching and learning outcomes. Through proper guidance and leadership, I encourage teachers to become more flexible,

understanding, and responsive to the diverse needs of learners.”

The response highlights the importance of building strong relationships among stakeholders and recognizing learners’ diverse backgrounds as a foundation for improving teaching and learning practices. It implies that culturally responsive leadership goes beyond classroom instruction by fostering collaboration, trust, and shared responsibility among school leaders, teachers, parents, and the community. By understanding and valuing the cultural identities, experiences, and needs of learners, school leaders are better able to create inclusive learning environments that encourage participation, respect diversity, and support equitable educational opportunities for all students.

This aligns with the view that leaders also facilitate stronger partnerships with families and communities to support equitable access to learning opportunities, particularly for historically marginalized groups (Kato, 2025). The study emphasizes that culturally responsive leadership strengthens collaboration among stakeholders and promotes inclusive educational practices that address the diverse needs of learners.

In the same way, School Head D described culturally responsive leadership as being strengthened through instructional support, collaboration, and continuous professional development. The participant shared that, “I encourage teachers to integrate culturally relevant examples, activities, and strategies in their lessons to make learning more meaningful and inclusive. I also promote collaboration among teachers, parents, and community stakeholders to create a supportive and learner-centered environment. Through regular meetings, classroom observations, and professional development activities, I make sure that teachers are guided and supported in implementing inclusive practices in the school.”

The response highlights the role of leadership in guiding teachers to apply culturally relevant pedagogy while ensuring consistent support through monitoring and capacity-building activities. It implies that effective school leadership is essential in sustaining culturally responsive teaching practices by

providing teachers with guidance, encouragement, and opportunities for professional growth.

Likewise, School Head E stressed the importance of culturally sensitive teaching practices and open communication in promoting inclusive education. According to the participant, “I encourage teachers to use teaching approaches that are sensitive to the learners’ culture, experiences, and abilities. I also make sure that communication among teachers, parents, and students remains open and respectful. Through regular monitoring and consultation, I help teachers identify strategies that will make learners feel valued and included in the classroom environment.”

The response emphasizes continuous monitoring and consultation as key leadership practices in ensuring that learners’ cultural backgrounds are acknowledged and respected in the teaching and learning process.

Overall, the responses of School Heads C, D, and E reveal that culturally responsive leadership is effectively implemented through collaboration, open communication, instructional support, and continuous professional development. These practices demonstrate a strong commitment to creating inclusive, learner-centered environments that value diversity and promote equitable learning opportunities for all students.

While school leaders set the vision for culturally responsive practices, teachers are the frontline implementers who translate this vision into daily classroom reality. The practices applied by teachers in effectively implementing culturally responsive leadership are essential for creating equitable learning environments where all students feel valued, respected, and academically supported.

Teacher A emphasized the importance of respecting and valuing students’ diverse backgrounds as a core practice of culturally responsive leadership in the classroom. According to the participant: “I apply culturally responsive leadership by respecting the different backgrounds, beliefs, and experiences of my students. I make sure that all learners feel valued, included, and given equal opportunities to participate in class activities.”

Similarly, Teacher C emphasized the importance of linking lessons to students' lived experiences to enhance understanding and engagement. The participant stated that: "I apply culturally responsive practices by relating lessons to the students' experiences and background. I also use examples and activities that are familiar to their daily life so they can understand the lesson better."

This reflects a culturally responsive approach where instruction becomes more meaningful when anchored in learners' contexts, making abstract concepts more accessible and relevant.

Taken together, these responses reflect a culturally responsive approach where respect for learner diversity is combined with context-based instruction, making learning more meaningful, inclusive, and accessible by anchoring lessons in students' lived experiences.

These align with the findings of Uy et al. (2024), which emphasized that teachers effectively implement culturally responsive leadership by fostering inclusive, student-centered, and culturally meaningful learning environments. Teachers recognize and value students' cultural identities, experiences, and voices within the teaching and learning process by incorporating diverse perspectives into classroom discourse, building caring and inclusive relationships, and connecting instruction to students' lived experiences and cultural backgrounds.

Teacher C shared the importance of connecting instruction to learners' backgrounds while also fostering strong relationships with parents and the wider school community. The participant stated that: "I will make sure that they can relate to every lesson without ignoring their backgrounds and cultural differences. When it comes to other members of the school community, for example, the parents, I make sure that they are recognized of their contributions, effort and support to the learner and the school and that they are also heard and be understood for whatever opinions and rants they talk about their children or the school itself. From that, I can be able to consider such for the better plans, approaches and

activities that promotes inclusivity, respect and cultural awareness."

The response highlights the teacher's practice of culturally responsive leadership through inclusive instruction, active listening, and valuing the perspectives of both learners and parents in shaping more responsive and culturally aware teaching strategies. It implies that teachers play a significant role in fostering inclusive learning environments by recognizing and respecting the diverse cultural backgrounds, experiences, and needs of students. Through active communication and collaboration with parents and learners, teachers are able to better understand the challenges, strengths, and realities experienced by students, allowing them to adapt instructional approaches that are more meaningful, relevant, and supportive. This practice also strengthens trust, participation, and mutual respect among stakeholders, contributing to a more equitable and learner-centered educational environment.

This aligns with Dey (2022), who emphasized that teachers are encouraged to build on students' prior knowledge and connect instruction to their cultural and linguistic contexts to make learning more relevant, meaningful, and engaging.

Teacher D highlighted the importance of creating an inclusive classroom where learners feel valued and accepted. The participant shared, "I make sure that I cater every learners' need in terms of education. In giving activities, I consider their backgrounds and contexts. I really want them na maramdaman nila that they really belong to the group."

The teacher explained that they ensure all learners' educational needs are addressed by considering students' backgrounds and contexts when designing activities. The participant emphasized the importance of fostering a sense of belonging among learners, which encourages participation and confidence in the classroom. This demonstrates that culturally responsive leadership extends beyond instructional adaptation and includes the creation of a supportive emotional environment where learners feel included and valued.

Similarly, Teacher E emphasized collaboration as a strategy for strengthening relationships among diverse learners. According to the participant, “I always consider my learners’ needs and interests. I make sure that they collaborate with their classmates to develop their communication skills. I want them realize that their differences will make them united and strong when they share each other’s strengths and weakness.”

This indicates that diversity is viewed as a strength in the classroom, where collaborative learning promotes mutual understanding, communication skills, and appreciation of individual differences while building shared competencies. It implies that culturally diverse classrooms provide opportunities for learners to exchange ideas, perspectives, and experiences that enrich the teaching and learning process.

These findings align with Byrd and Indar (2025), who found that teachers implement culturally relevant pedagogies by incorporating cultural references that support students’ social, emotional, and academic development. Consistent with the present study, the practices of Teachers D and E demonstrate how culturally responsive leadership fosters both an inclusive learning environment and collaborative engagement, ultimately enhancing learners’ holistic development.

Overall, the findings demonstrate that the effective implementation of culturally responsive leadership relies on the shared efforts of both school leaders and teachers in fostering inclusive, equitable, and culturally sensitive learning environments. School leaders contribute by establishing a strong foundation through reflective practices, collaborative leadership, open communication, and continuous professional development, while teachers translate these principles into meaningful classroom practices that respect learners’ diverse backgrounds, promote inclusivity, and encourage active engagement. The utilization of culturally relevant instruction, strong school-community partnerships, and supportive learning environments highlights the importance of aligning leadership practices with the cultural realities of learners. Collectively, these practices affirm that culturally responsive leadership is not a single action but a continuous, collaborative process that

strengthens relationships, enhances teaching and learning, and ensures that all learners feel valued, respected, and empowered in the educational setting. Experiences of School Leaders and Teachers with Technology Utilization in Culturally Diverse Classroom

This section explores the experiences of school leaders and teachers in integrating technology within culturally diverse classrooms. It highlights how digital tools are utilized to support instruction, communication, and inclusivity in learning environments with varied linguistic and cultural backgrounds. The discussion provides insight into how these experiences shape teaching practices and leadership approaches in promoting equitable and responsive education.

The role of school leaders in facilitating meaningful technology utilization has become a critical focal point for educational equity. Administrators are tasked not only with adopting digital tools but with ensuring these resources bridge learning gaps rather than widening them. School Head A shared that technology plays a significant role in creating an engaging and motivating learning environment for students. The respondent emphasized the importance of administrative support in ensuring the availability and proper functioning of technological resources within the school. According to the participant: “Technology transforms the traditional classroom into a motivating learning environment. Hence, the administration ensures that materials and equipment are available and functional, ready for teachers to use when needed. We conduct planning sessions and invite everyone to participate in determining the appropriate instructional materials and equipment to purchase for technology application in the teaching and learning process.”

The response highlights the important role of school leadership in ensuring effective and equitable technology utilization within the school environment. It implies that administrative support, collaborative planning, and the provision of functional technological resources help create engaging, motivating, and inclusive learning experiences for both teachers and students.

Similarly, School Head B shared experiences that closely align with the views expressed by School Head A regarding the importance of technology utilization and continuous support for teachers. The respondent emphasized the value of ongoing professional development in strengthening teachers' technological competencies and ensuring effective classroom implementation. The participant stated that:

"In my current station, I am fortunate that everyone is already applying technology in teaching and assessment. Nonetheless, we still provide sessions to improve their skills through Learning Action Cells. Reskilling and upskilling are necessary to enhance their competencies and keep them updated on the latest applications."

The responses reflect the school heads' commitment to collaborative planning and shared decision-making in technology utilization. It also highlights the importance of providing accessible instructional resources that support effective teaching and learning in culturally diverse classrooms.

This finding relates to the study of Washington (2021), which stated that technology serves as a mechanism for assessment, data-informed decision-making, and transparent communication when guided by ethical considerations, equity goals, and awareness of students' diverse access and literacy levels. In the same manner, School Head A and B emphasized participatory planning and careful selection of instructional materials to ensure that technology utilization addresses the needs of both teachers and learners in diverse educational settings.

The experiences of School Heads C, D, and E reveal that technology utilization is widely recognized as a key strategy in enhancing teaching and learning in culturally diverse classrooms. School Head C emphasizes the instructional role of technology in supporting diverse learners and improving lesson delivery. The participant reported that: "In my experience as a school head, technology has become an important tool in supporting teaching and learning in diverse classrooms. I encourage teachers to integrate digital tools, multimedia resources, and online platforms to make lessons more

engaging and accessible to learners with different learning needs and abilities."

This response indicates that technology is primarily viewed as a pedagogical tool that promotes inclusivity by addressing varied learning needs. It reflects the role of school leadership in encouraging teachers to adopt digital resources to enhance accessibility and engagement among culturally and academically diverse students.

In contrast, School Head D highlights the importance of adequate infrastructure, institutional support, and teacher capacity in ensuring effective technology utilization. The participant stated:

"In our school, technology utilization has become an essential part of teaching and learning. Since we have sufficient ICT tools and equipment through our MOOE allocation, teachers are able to utilize laptops, projectors, smart televisions, and internet resources effectively in their classes. Most of our teachers are digitally literate and capable of integrating various educational technologies and learning management systems in their instruction. As a school head, I ensure that teachers are provided with the necessary resources, training, and technical support to effectively integrate technology in culturally diverse classrooms."

This statement underscores that successful technology utilization is strongly dependent on resource availability, teacher digital literacy, and continuous administrative support. It suggests that when schools are well-equipped and teachers are adequately trained, technology can be effectively embedded into instruction across diverse learning contexts.

In this regard, Ifinedo and Kankaanranta (2021) emphasize that stronger school-level support, including adequate infrastructure, sustained training opportunities, and clear policy guidance, creates more favorable conditions for effective ICT utilization, thereby reinforcing the idea that institutional readiness is a critical driver of meaningful and sustainable technology use in education.

Meanwhile, School Head E focuses on the impact of technology on learner engagement and classroom interaction. The participant stated:

"Technology utilization has helped make classroom instruction more interactive and engaging. Learners become more interested in lessons when multimedia presentations, videos, and digital activities are used. It also improves communication and collaboration among students during classroom activities."

This response highlights the motivational and social benefits of technology, particularly in fostering student engagement, participation, and collaboration. It suggests that digital tools contribute not only to knowledge delivery but also to creating a more interactive and socially connected learning environment.

In addition to the perspectives of school leaders, it is equally important to explore the experiences of teachers, who are directly involved in implementing technology in the classroom. Teachers' experiences with technology utilization in culturally diverse classrooms highlight both the opportunities and challenges of using digital tools to support inclusive and culturally responsive teaching practices.

Teacher A shared her experience with evident excitement, emphasizing how technology can still be effectively integrated even without internet connectivity through the use of available offline digital tools. As expressed by the participant: "Even without internet access, I integrate technology by using laptops, projectors, PowerPoint presentations, videos, and other offline educational resources. These tools help make lessons more engaging and easier for students to understand."

The response highlights the teacher's resourcefulness, adaptability, and positive attitude toward technology utilization despite limited internet connectivity. It implies that effective technology utilization does not always depend on online access, as teachers can maximize available offline digital tools to create engaging, interactive, and meaningful learning experiences for students.

Consistent with these experiences, teachers generally view technology as beneficial in enhancing student

engagement, collaboration, access to learning materials, and opportunities for interactive and student-centered learning (Akram et al., 2022; Ifinedo & Kankaanranta, 2021). The teacher's use of offline digital tools demonstrates that technology can still support meaningful and engaging instruction even in contexts with limited internet connectivity.

Teacher B, on the other hand, expressed pride in her experience, highlighting how technology utilization has improved both instructional efficiency and learner engagement. According to the participant: "Technology utilization really helped me to lessen too much effort on manually preparing instructional materials from different cut-outs using colorful papers just to catch the student's attention during discussion. It also helped me to engage learners in everyday lesson and lead them to better performance and outputs."

The response highlights that technology utilization enhances teaching practices by making instruction more engaging, efficient, and impactful for learners, even in settings with limited internet access. This relates to the idea that technology, when used creatively and appropriately, can support inclusive and learner-centered instruction despite resource limitations.

Furthermore, in culturally diverse classrooms, technology plays a significant role in helping teachers tailor instruction to varied cultural and linguistic backgrounds, promote inclusion, and personalize learning experiences for students (Safidon, 2024). In this regard, the experiences of both teachers underscore that technology serves not only as an instructional aid but also as a transformative tool that supports inclusive and responsive teaching practices, even within resource-constrained educational environments.

Teacher C described technology utilization as an effective strategy for making teaching more interactive and lessons easier for students to understand. According to the participant, "Technology helps make my teaching more interactive and easier to understand. Students also become more active and interested in class activities when visual presentations and videos are used."

The response highlights how the use of multimedia materials, such as visual presentations and videos, increases learners' participation, attention, and interest during classroom discussions and activities. It also shows that technology can support better understanding of lessons by presenting information in more engaging and accessible ways.

Similarly, Teacher D described technology utilization as an engaging and interactive experience that enhances student participation in the classroom. According to the participant, "In our school, we have TV, speakers, projectors, and laptops. We also have internet connection although sometimes it becomes weak. But I can say that I really enjoy using technology in my classroom because learners participate in class when they see pictures, hear music, and others. I think, I can do all these because I have knowledge on how to use technology in teaching."

The response highlights how the availability of technological resources, together with teachers' technological competence, contributes to more interactive and learner-centered instruction. Despite occasional internet connectivity issues, the participant emphasized that the use of multimedia materials increases learners' engagement, interest, and participation during classroom activities.

Overall, the experiences of Teacher C and Teacher D demonstrate that technology utilization promotes interactive, engaging, and learner-centered teaching practices. Their responses suggest that the use of multimedia tools and digital resources can improve students' understanding, participation, and motivation in culturally diverse classrooms.

These findings are supported by Fitrianto et al. (2025), who found that teachers utilize digital tools in culturally grounded and project-based learning activities to connect students' cultural experiences with broader educational goals. Similar to Teacher C and D's experience, the study emphasized that multimedia resources and digital technologies help create more engaging and meaningful learning experiences for students. Furthermore, the study noted that technology utilization not only enhances

academic learning and classroom participation but also promotes cultural awareness and meaningful interaction among learners in diverse educational settings.

Teacher E described technology utilization as a collaborative and supportive practice that benefits both students and co-teachers. The participant shared, "I help my students in manipulating technology inside our classroom. But even outside my classroom, I still choose to help my co-teachers on how to utilize technology properly. I extend help whenever they need it, we work together, we plan our activities and do our paper works applying technology."

The response highlights the participant's willingness to guide learners and colleagues in the proper use of technology, demonstrating collaboration and shared learning within the school environment. It also shows that technology utilization is not limited to classroom instruction but extends to teamwork, planning, and professional support among teachers, which contributes to more effective and coordinated educational practices.

This experience is supported by studies emphasizing the need for continuous professional development and technical support from ICT coordinators and school teams to strengthen teachers' ability to integrate technology effectively and inclusively (Fitrianto et al., 2025; Sosa-Díaz et al., 2022). Teacher E's experience reflects the importance of collaboration and peer support in utilizing technology within and beyond the classroom. By assisting co-teachers in planning activities, preparing paperwork, and properly using technological tools, the participant demonstrated how collaborative learning among educators can strengthen technological competence and improve instructional practices.

Overall, the experiences of school leaders and teachers demonstrate that technology utilization plays a significant role in promoting inclusive, engaging, and culturally responsive teaching and learning in diverse classroom settings. The emphasis on collaboration, peer support, and continuous professional growth further suggests that effective technology utilization depends not only on the availability of digital tools but also on the collective

efforts and interactions among members of the school community.

This finding is closely related to Engeström's Cultural-Historical Activity Theory (CHAT), as discussed by Adler and Akad (2024), which explains that learning is shaped through social interaction, cultural context, and the use of mediating tools such as technology. The theory emphasizes that successful educational practices emerge from the interconnected roles of individuals, community participation, institutional rules, and available resources working together toward common goals. In this study, technology functions as a mediating tool that supports communication, collaboration, and inclusive learning, while culturally responsive leadership strengthens the cooperation and shared responsibility necessary for meaningful technology utilization in diverse educational settings.

Challenges Encountered by School Leaders and Teachers in Implementing Technology Utilization in Diverse Educational Settings

Technology utilization continues to reshape teaching and learning processes in today's increasingly diverse educational environments. School leaders and teachers are both key actors in ensuring that digital tools are effectively embedded in instruction while responding to varied learner needs and contexts. This section explores their experiences in implementing technology utilization in diverse educational settings, highlighting the realities of practice in inclusive classrooms.

School leaders encounter various challenges in implementing technology utilization in diverse educational settings. These barriers affect leaders' ability to effectively support inclusive, technology-enhanced learning environments for diverse learners. School Head A identified internet connectivity as one of the major challenges encountered in implementing technology utilization in the school. The participant emphasized that stable internet access plays a significant role in enhancing both teaching creativity and students' learning experiences. According to the respondent:

"One of the challenges we encountered is internet connectivity. Access to the World Wide Web boosts teachers' creativity and allows them to immerse

learners in various local and international scenarios, helping them learn and understand in a wider context."

The response highlights how limited internet connectivity affects teachers' ability to maximize digital resources and provide broader learning opportunities for students in culturally diverse classrooms.

Similarly, School Head B shared concerns regarding the insufficient number of computer sets available for learners, which affects the delivery of computer-related lessons and skills development. The participant stated:

"In our school we don't have computer sets to cater all learners one is to one. It is really hard to teach basic computer skills and hard for the teachers to deliver the lesson about using the computer. But they find ways to teach our learners and I also guide them on how to deliver the lesson without the actual computers na one is to one ratio."

The response highlights the challenges faced by school leaders and teachers due to the limited availability of computer resources for learners. It implies that inadequate access to technological tools affects the effective delivery of computer-related lessons and the development of students' digital skills; however, the school head's guidance and the teachers' adaptability demonstrate resilience, collaboration, and commitment to ensuring continued learning despite resource limitations.

These findings support the study of Zaid and Garai (2024), which emphasized that technical and infrastructural barriers, such as the digital divide, unreliable connectivity, and limited technological resources, disproportionately affect learners from underserved backgrounds. These constraints hinder equal access to quality digital learning experiences and limit opportunities for students to develop essential 21st-century skills. In the context of the present study, the lack of sufficient computer sets in schools reflects similar equity issues, where resource limitations directly impact the effective delivery of technology-based instruction.

Similar to the experiences shared by School Head A and School Head B, the lack of stable internet connection and insufficient computer units hinder teachers' ability to effectively deliver technology-based instruction and provide equal learning opportunities for students. Despite these limitations, both school heads demonstrated adaptive and supportive leadership by encouraging teachers to develop alternative instructional strategies and continue delivering meaningful learning experiences even with limited technological resources.

The responses of School Heads C, D, and E reveal several common and context-specific challenges in the implementation of technology utilization in their respective schools. These challenges primarily revolve around limited access to ICT resources, infrastructure constraints, and issues of equity in access among learners.

School Head C emphasized severe infrastructural and connectivity limitations, stating: "Limited access to devices and internet connection. Our school has limited computers, projectors and has no internet connection, making it difficult to conduct technology-based activities regularly. Unstable electricity and no internet signal."

This response highlights a fundamental barrier to technology utilization, where the absence of reliable electricity and internet access significantly restricts the possibility of implementing digital or technology-supported instruction. It suggests that even basic ICT utilization remains a challenge in settings with underdeveloped infrastructure.

In contrast, School Head D noted comparatively fewer systemic challenges, but pointed out issues related to the quality and appropriateness of available devices:

"Since our school is not yet implementing complicated technological interventions, there is not much challenge being encountered in implementing technology. Maybe, the challenge came from the devices or gadgets being used such as poor quality of projectors, small size of classroom television which cannot cater the needs of large quantity of learners."

This indicates that while technology is present, its effectiveness is limited by inadequate specifications and poor suitability for large classroom settings, which affects instructional delivery and learner engagement.

Meanwhile, School Head E described a broader range of concerns related to both resource availability and equitable access:

"One of the main challenges in our school is the limited number of ICT tools and equipment compared to the population of learners. There are times when classes need to share available devices, which affects the scheduling of technology-based activities. Internet connectivity also becomes inconsistent during simultaneous use by several classes. Another challenge is ensuring that all students, especially those from disadvantaged families, are able to access digital learning resources outside the school."

The response highlights significant challenges in ensuring equitable and efficient technology utilization within the school, particularly due to limited ICT resources, unstable internet connectivity, and disparities in learners' access to digital tools outside school. It implies that these constraints affect the smooth implementation of technology-based activities and underscore the need for improved resource allocation, infrastructure support, and strategies that promote inclusive access to digital learning opportunities for all students.

This finding is consistent with Mustafa et al. (2024), who identified that school leaders commonly face shortages of qualified staff, insufficient funding for technological resources, and unreliable internet connectivity as major barriers to effective technology utilization. In relation to the present result, the challenges experienced by school leaders and teachers in managing limited ICT resources, addressing logistical constraints, and coping with inconsistent internet access reflect these systemic issues. The difficulty in ensuring equitable access to technology among learners further highlights the persistent digital divide, particularly for students who lack adequate resources outside the school environment.

In the same way as school leaders, teachers play a central role in facilitating the use of technology in diverse classrooms. However, they may encounter various challenges that can affect the effective implementation of technology in the teaching and learning process.

Teacher A identified infrastructural and resource-related limitations as the main challenges in integrating technology into instruction. According to the respondent: “The main challenges are the lack of computers, limited technological resources, and the absence of internet access in our school. These limitations reduce opportunities to use digital tools regularly during instruction.”

The response highlights that inadequate infrastructure and insufficient technological resources significantly hinder the effective utilization of technology in instruction. It implies that the lack of computers and internet access limits teachers’ ability to consistently implement digital learning strategies, thereby restricting opportunities for interactive, engaging, and technology-enhanced teaching and learning experiences.

Similar to Teacher A, Teacher C identified limited technological resources and inadequate internet connectivity as major challenges in technology utilization. The participant emphasized: “One of the main challenges is the lack of gadgets, unstable internet connection, and limited teaching materials. Some students also have difficulty using technology, especially those with limited access at home.”

The response highlights that limited access to technological resources, unstable internet connectivity, and insufficient learning materials significantly hinder effective technology utilization in instruction. It implies that these challenges not only affect teachers’ ability to deliver technology-enhanced lessons but also reflect disparities in students’ digital access and skills, which further complicates the implementation of inclusive and equitable learning experiences in the classroom.

Correspondingly, Teacher D described infrastructural challenges that affect the smooth utilization of technology in classroom instruction. The participant

appeared disappointed while explaining the difficulties and mentioned: “One of the challenges I encountered is having an outage in our school, we call it brownout, and sometimes, poor internet connection that I cannot search or download the materials I needed immediately.”

The responses highlighted how inadequate technological infrastructure restricts the regular and effective use of digital tools in teaching and learning processes. Teacher A, C, and D’s experience aligns with existing study emphasizing that insufficient technological infrastructure remains a major barrier to effective technology utilization in schools.

As noted by Akcil et al. (2021), teachers often face challenges such as limited internet access, inadequate equipment, and a lack of technical support, which directly hinder the consistent use of digital tools in instruction. This suggests that without addressing these foundational resource gaps, efforts to enhance technology-based teaching may remain limited in both scope and effectiveness.

Teacher B, on the other hand, pointed out learner and parental-related challenges in technology utilization. According to the respondent: “Some of the learners don't know how to manipulate apps or website so you have to teach them first which is a little bit time-consuming instead of teaching the lesson directly. Also, there are parents who don't let their child use phones because they don't trust enough their children on the reason that they really have to use phones to manipulate some apps or website in doing assignments or activities.”

The response emphasizes that aside from technical limitations, challenges also arise from learners’ digital skills and parental concerns regarding device use, which may affect the smooth implementation of technology-based instruction.

This finding supports Fitrianto et al. (2025), who argued that the complexity of coordinating with community partners to develop culturally relevant digital resources adds another layer of difficulty to the teacher’s role. In relation to Teacher B’s experience, the need to address learners’ limited digital skills and parental restrictions highlights how

teachers must extend their responsibilities beyond instruction to include guiding students in technology use and gaining parental trust.

Meanwhile, Teacher E emphasized challenges related to teachers' technological skills and capacity in using digital tools for instruction. According to the participant, "I observed that some of my co-teachers find it hard to use technology in teaching. Most of them are the seasoned teachers like they are 50 plus years old. I choose to help them but sometimes, I can't do that because I am also busy with the tasks to be accomplished."

The response highlights that some teachers, particularly seasoned educators, experience difficulties in adapting to technology utilization due to limited technological familiarity and skills. It implies that differences in age, exposure, and prior training influence teachers' confidence and readiness to integrate digital tools into their instruction.

This situation aligns with the findings of Ifinedo and Kankaanranta (2021) and Akram et al. (2022), who emphasized that gaps in professional development, insufficient ICT competencies, resistance to rapid technological change, and lack of sustained training opportunities often hinder effective technology integration in schools. In the case of Teacher E, although peer support and collaboration exist within the school, workload pressures and limited time constrain opportunities for continuous mentoring and skill development among teachers. This indicates that while supportive structures are present, their effectiveness is reduced without sufficient time, training, and institutional support to sustain ongoing professional growth in technology utilization.

Overall, the findings reveal that both school leaders and teachers face interconnected challenges in integrating technology, primarily related to limited infrastructure, insufficient resources, unstable connectivity, and gaps in digital skills among educators and learners. Despite these barriers, their responses demonstrate resilience and adaptability, as they continue to explore alternative strategies and support one another to ensure that meaningful and inclusive learning experiences are sustained even in resource-constrained environments.

This relates to Burns's Transformational Leadership Theory, as expanded by Arambula (2023), which explains that effective leadership involves inspiring, motivating, and guiding individuals toward shared goals and positive change. The theory emphasizes that transformational leaders foster collaboration, encourage innovation, and support continuous professional growth within an organization. In the educational context, such leaders play a crucial role in motivating teachers to embrace and effectively use technology in teaching and learning. By creating a supportive and empowering environment, transformational leaders help teachers adapt to challenges, develop new competencies, and sustain innovative instructional practices that enhance student learning outcomes.

Policy Recommendations Based on the Results of the Study

The policy recommendations presented in this section are grounded in the study's findings on culturally responsive leadership and technology utilization in diverse educational settings. These recommendations are supported by existing research that emphasizes the importance of strong institutional support and effective leadership in fostering inclusive and technology-enabled learning environments. Ifinedo and Kankaanranta (2021) emphasize that schools with strong school-level support, including professional training opportunities, clear policy guidance, and accessible technological facilities, create more favorable conditions for ICT utilization and for addressing diverse learning needs. This highlights the importance of systemic structures that enable educators and school leaders to implement inclusive and technology-supported practices successfully.

The study utilized the ADD Model, which consists of the Analysis, Design, and Development phases, in formulating the school-level policy on strengthening culturally responsive leadership and technology utilization.

Analyze. The researcher examined the current conditions of the schools in terms of inclusive practices and technology utilization through observations and lived experiences from the school leaders and teachers. The analysis identified key

challenges such as limited ICT resources, insufficient teacher training in culturally responsive pedagogy, poor internet connectivity, and unequal access to digital tools among learners. Relevant national policies, including DepEd Order No. 72, s. 2009 on Inclusive Education and DepEd Order No. 24, s. 2022 or the Basic Education Development Plan (BEDP) 2030, were also reviewed to ensure alignment with national priorities. The findings from this phase served as the basis for designing a responsive and needs-based policy.

Design. The structure and key components of the policy were carefully planned to address the identified gaps. The policy framework was designed to promote inclusivity, equity, and effective technology utilization in teaching and learning. Specific objectives were formulated to strengthen culturally responsive leadership, enhance ICT utilization, improve teacher competencies, and expand equitable access to digital resources. The design also included clear policy guidelines covering leadership practices, classroom instruction, professional development, ICT support, and stakeholder engagement. Roles and responsibilities of school personnel were defined, along with monitoring and evaluation mechanisms to ensure systematic implementation. The design ensured that all strategies were learner-centered, culturally sensitive, and responsive to the diverse needs of students.

Develop. The school-level policy titled “School-Level Policy Recommendation on Strengthening Culturally Responsive Leadership and Technology Utilization” was formally written and finalized. The development process involved organizing the policy into comprehensive sections, including rationale, objectives, scope, guidelines, roles and responsibilities, monitoring and evaluation, funding, and effectivity. The policy was aligned with DepEd mandates and school improvement goals and was reviewed to ensure clarity, relevance, and practicality. Supporting tools such as monitoring instruments, training plans, and implementation strategies were also prepared. Resources necessary for implementation, including ICT equipment, professional development programs, and funding sources, were identified. The completed policy serves

as a structured guide to support inclusive education and enhance technology utilization within the school.

IV. CONCLUSION

- 1) School leaders and teachers both play vital roles in implementing culturally responsive leadership in education. Through inclusive leadership practices and culturally relevant teaching strategies, they help create equitable learning environments that value diversity and support the holistic development of learners.
- 2) School leaders and teachers view technology utilization as an important tool in promoting inclusion, equity, and meaningful learning in culturally diverse classrooms. However, the effective use of technology depends on culturally responsive leadership, adequate resources, institutional support, and continuous professional development.
- 3) School leaders and teachers encounter various challenges in implementing technology utilization in diverse educational settings. These challenges include limited ICT resources, inadequate training, poor internet connectivity, heavy workloads, and insufficient policy and institutional support, showing that technology utilization is both a technical and systemic concern.
- 4) Culturally responsive leadership and effective technology utilization are essential in building inclusive, adaptive, and learner-centered educational environments. The study highlights the importance of strong leadership, supportive policies, continuous training, accessible technology, and stakeholder collaboration in addressing the diverse needs of learners and teachers.

V. RECOMMENDATIONS

- 1) School leaders and teachers should continue strengthening collaboration in implementing culturally responsive practices within schools. Continuous professional development, reflective practice, and inclusive decision-making should be sustained to ensure equitable, learner-centered, and culturally responsive education.

- 2) Schools should strengthen culturally responsive and equity-focused technology utilization through improved collaboration, adequate ICT infrastructure, and continuous professional development. Policymakers and school administrators should also establish clear and inclusive policies that support ethical, accessible, and meaningful utilization of technology in diverse classrooms.
- 3) Education stakeholders should invest in reliable ICT infrastructure, updated technological resources, and continuous training programs to address challenges in technology utilization. Schools should also promote collaborative planning, supportive policies, and community engagement to ensure inclusive and culturally responsive technology integration.
- 4) Schools and policymakers should strengthen culturally responsive leadership and sustainable technology utilization through clear institutional policies, sufficient resources, and continuous capacity-building programs. Regular training, stakeholder collaboration, and equitable access to technology should be prioritized to support inclusive and adaptive learning environments for diverse learners.

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