***Original Research Article***

**THE SCHEME FOR IMPROVING EDUCATIONAL MATERIALS**

**OF TEACHERS IN PUBLIC ELEMENTARY SCHOOLS:**

**A POST HOC STUDY**

ABSTRACT

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| --- |
| This study aimed to examine the significant difference in the scheme for improving educational materials among public elementary school teachers when grouped according to their demographic profile. A descriptive-comparative research design was employed, with 200 public elementary school teachers in Manay District, Division of Davao Oriental, participating as respondents. Data were collected using a structured survey questionnaire and analyzed through frequency, percentage, mean, standard deviation (SD), independent t-test, and one-way analysis of variance (ANOVA). The findings revealed that most teachers hold a college degree, while others have obtained a master’s degree. In terms of marital status, nearly half of the respondents are single, while the rest are either married or separated. Regarding years in service, many have less than five years of teaching experience, while others have been in service for a longer period. Additionally, teachers demonstrated a very high level of skill in improving educational materials. Further analysis showed a significant difference in teachers' schemes for improving educational materials when grouped according to educational attainment, marital status, and years in service. Based on these findings, it is recommended that school administrators provide continuous professional development programs focused on instructional material development. Encouraging teachers to pursue advanced education and fostering collaboration in creating high-quality educational materials may further enhance their ability to improve instructional resources. Strengthening institutional support and resource allocation can also contribute to sustaining and advancing the scheme for improving educational materials in public elementary schools. |

*Keywords*: Scheme for Improving Educational Materials, Descriptive-Comparative, Public Elementary Schools, Education

1. INTRODUCTION

Despite the pivotal role that educational materials play in shaping effective teaching and learning outcomes, many public elementary school teachers continue to struggle with outdated, inadequate, and poorly contextualized instructional resources. This persistent issue hampers the delivery of quality education, limits student engagement, and restricts the ability of teachers to tailor lessons to diverse learning needs. Teachers are often forced to spend personal time and resources to supplement these deficiencies, which contributes to professional burnout and reduced instructional efficiency (Wang et al., 2021). Furthermore, systemic challenges such as limited funding, centralized curriculum design, and lack of professional development in instructional material development continue to exacerbate the problem. These conditions call for a comprehensive and context-specific approach to improve the quality and accessibility of educational materials for public elementary school teachers (Fasinro et al., 2024).

Globally, various countries grapple with the challenge of improving educational materials in public schools. In Kenya, for instance, the decentralization of education has led to inconsistencies in textbook distribution and a lack of localized content, burdening teachers with additional work in adapting materials (Otieno, 2024). Similarly, in Chile, while government initiatives aim to provide free textbooks, issues such as delayed distribution and irrelevance to local languages and contexts persist (Toledo-Sandoval, 2020). In Indonesia, the centralized development of learning materials has failed to meet the diverse linguistic and cultural needs of its vast student population, compelling teachers to develop supplementary materials on their own (Zein et al., 2020). These examples reflect a shared international challenge in ensuring that public school teachers are equipped with relevant, high-quality, and timely educational materials.

In the Philippines, public elementary school teachers face multifaceted challenges in accessing and utilizing effective educational materials (Cayabas Jr. & Sumeg-ang, 2023). While the Department of Education provides standardized modules and textbooks, many of these resources are either outdated, too generic, or misaligned with the actual needs of learners in varying regions. Teachers often compensate by creating or modifying materials using limited school resources or their own finances (Banjal et al., 2025). Moreover, the lack of training in instructional design and material adaptation further hampers the quality of teacher-made resources (Torres, 2024). This systemic inadequacy not only affects student learning but also burdens educators who are already dealing with overcrowded classrooms and administrative demands.

Although several studies have explored the availability and use of instructional materials in public schools, limited research has examined practical and post hoc schemes specifically aimed at improving educational materials from the teachers’ perspective. Existing literature often focuses on policy implementation or learner outcomes without addressing the critical feedback loop involving teachers’ direct experiences, coping strategies, and resource improvisation. Furthermore, there is a lack of context-specific analysis regarding how educational material development can be sustainably improved based on past challenges and practical insights within the Philippine public school setting. This gap necessitates a focused investigation to formulate a responsive scheme grounded in the lived experiences of public elementary school teachers.

This study aimed to examine and analyze the existing conditions surrounding the development and use of educational materials by teachers in public elementary schools through a post hoc lens. It investigated the challenges educators encountered in sourcing, developing, and utilizing instructional resources, as well as the strategies and practices they employed in response. The intention was to draw meaningful insights from these past experiences and synthesize them into a practical framework that could guide future policy-making, teacher training, and resource allocation, ultimately improving the quality and contextual relevance of educational materials in the Philippine basic education system.



**Figure 1:** Conceptual Framework of the Study

**1.1 Statement of the Problem**

This study was conducted to determine the scheme for improving educational materials of teachers in the public elementary schools in Manay District, Division of Davao Oriental. Specifically, it sought answers to the following sub-problems:

1. What is the demographic profile of teachers in public elementary schools in terms of:

1.1 educational attainment,

1.2 marital status, and

1.3 length of service?

2. What is the level of the scheme for improving educational materials of teachers in public elementary schools in Manay District, Division of Davao Oriental?

3. Is there a significant difference between the demographic profile of teachers in public elementary schools in Manay District, Division of Davao Oriental, when grouped according to educational attainment, marital status, and length of service, utilizing a post hoc study?

**1.2 Hypotheses**

The null hypothesis was tested at a 0.05 level of significance:

Ho1. There is no significant difference between the demographic profile of teachers in public elementary schools when grouped according to educational attainment, marital status, and length of service, utilizing a post hoc study.

2. methodology

**2.1 Research Design**

This study employed a non-experimental quantitative research design utilizing the descriptive-comparative method. This approach was deemed appropriate for examining the differences in the educational material practices among public elementary school teachers based on relevant factors such as teaching experience, grade level handled, or school location. As Pregoner (2025) emphasized, comparative studies help highlight distinctions and trends that emerge across different groups or contexts, offering valuable insights into practice-based variations. In this context, the descriptive-comparative method enabled the researcher to identify whether significant differences existed in how teachers develop, access, and utilize educational materials. By comparing these practices, the study aimed to uncover patterns that can inform targeted interventions, enhance instructional resource planning, and support policy improvements for more equitable and effective educational material provision in public elementary schools.

**2.2 Research Respondents**

The respondents of the study were selected public elementary school teachers from various schools in the Manay District, Division of Davao Oriental. A stratified random sampling technique was employed to ensure representation across different school locations and teaching profiles, aligning with the study’s objectives and population characteristics (Crossman, 2020). Out of 250 eligible teachers in Manay District, 200 respondents participated in the study. All participating teachers had rendered at least three years of service in public elementary schools, meeting the inclusion criteria established by the researcher. Data were collected through a standardized survey questionnaire, wherein teachers evaluated their colleagues’ practices related to educational materials. This study was conducted during the academic year 2024–2025. The use of stratified random sampling allowed for efficient and proportionate representation of the target population, thereby enhancing the reliability and generalizability of the findings.

**2.3 Research Instrument**

The instrument used in this study was a researcher-made survey questionnaire designed to assess the practices related to improving educational materials among public elementary school teachers in Manay District, Division of Davao Oriental. The questionnaire was developed based on a comprehensive review of relevant literature and previous studies focusing on instructional resource development, classroom material support, and teacher-driven innovations. To ensure content and face validity, the initial draft of the instrument was evaluated by a panel of experts in Educational Management, Curriculum and Instruction, and Instructional Materials Development. Their feedback was carefully considered, and revisions were made to improve the clarity, structure, and alignment of the items with the study’s objectives.

To establish the reliability of the instrument, a pilot test was conducted with 30 public elementary school teachers from a neighboring district not included in the main study. The results of the pilot test indicated high internal consistency, with a Cronbach’s Alpha of 0.921 for the Improving Educational Materials Scale. This confirmed the instrument’s reliability for use in the main study.

**2.4 Data Gathering Procedure**

# The data for this study were gathered through a series of systematic and ethically guided procedures. The researcher first obtained an endorsement from the Dean of the Graduate School of Rizal Memorial Colleges and secured ethical clearance from the institution’s Ethics Review Committee to ensure the protection of participants’ rights and strict adherence to established research ethics. Subsequently, a formal request letter was submitted to the Office of the Schools Division Superintendent of Davao Oriental. Upon approval, the Division Office issued an endorsement letter addressed to the School Heads of public elementary schools in Manay District, authorizing the conduct of the study in their respective institutions.

# With all necessary approvals in place, the researcher conducted a pilot test of the survey instrument with teachers from a neighboring district to assess the tool’s reliability and validity. Participants in the pilot test were briefed on the study’s purpose and were given clear instructions to complete the questionnaire accurately and honestly. Based on their responses and suggestions, the instrument was revised to enhance clarity and ensure full alignment with the study’s research objectives. The finalized questionnaires were then distributed to 200 public elementary school teachers selected through a stratified random sampling method. Upon completion, the researcher personally retrieved all accomplished questionnaires. The collected data were submitted to a professional statistician for tallying, tabulation, and statistical analysis based on the research questions and objectives of the study.

# 2.5 Data Analysis

The statistical tools mentioned below were the essential tools that the researcher used to analyze and interpret the results of the data gathered for this study:

Mean. This was a descriptive statistical tool that the researcher employed to determine the level of the variables being studied. This tool helped present the level of the scheme for improving educational materials for the respondents of this study.

Comparison of Means. A T-test for independent samples and ANOVA analysis were utilized in this study. These statistical tools were utilized to test whether there was a significant difference in the readiness among public elementary school teachers when grouped according to sex, age, and number of years in teaching service.

3. results and discussion

**3.1 Demographic Profile of Teachers in Public Elementary Schools**

Table 1. *Demographic Profile of Teachers in Public Elementary Schools*

|  |  |  |
| --- | --- | --- |
| **Demographic Profile** | **Frequency** | **Percentage (%)** |
| **Educational Attainment** |  |  |
| College | 112 | 56.00 |
| Master's | 88 | 44.00 |
| Total | 200 | 100.00 |
| **Marital Status** |  |  |
| Single | 95 | 47.50 |
| Married | 85 | 42.50 |
| Separated | 20 | 10.00 |
|  Total | 200 | 100.00 |
| **Years in Service** |  |  |
| Less than 5 years | 112 | 56.00 |
| 5-10 years | 58 | 29.00 |
| 10 years and above | 30 | 15.00 |
|  Total | 200 | 100.00 |

Presented in Table 1 is the demographic profile of the respondents in terms of educational attainment, marital status, and years in service. Out of 200 respondents, the majority (56.0%) hold a college degree, while 44.0% have obtained a master's degree. In terms of marital status, nearly half of the respondents (47.5%) are single, followed by 42.5% who are married, while 10.0% are separated. Regarding years in service, more than half (56.0%) have less than five years of teaching experience, 29.0% have been in service for 5-10 years, and the remaining 15.0% have over ten years of teaching experience.

This finding aligns with the study of Zhao et al. (2024), who emphasized that teachers with higher educational attainment tend to exhibit a greater inclination toward curriculum innovation and instructional material development, leading to improved educational outcomes. This suggests that teachers who pursue advanced studies are more likely to integrate modern pedagogical approaches and research-based strategies into their teaching materials, making learning more effective for students. Similarly, Abdulaziz et al. (2022) highlighted that marital status can influence teachers' professional engagement, as personal responsibilities and work-life balance affect their approach to instructional material preparation. This implies that single teachers may have more flexibility to explore and create diverse educational resources, while married and separated teachers might need structured support systems to balance professional responsibilities and personal commitments. Furthermore, Kusmawan et al. (2025) found that years of teaching experience play a crucial role in shaping teachers' ability to adapt and implement effective educational schemes, with more experienced teachers demonstrating refined strategies in material development and classroom resource utilization. This indicates that veteran teachers leverage their expertise and accumulated knowledge to enhance learning materials, whereas novice teachers may require mentorship and training to develop high-quality educational resources.

**3.2 Level of Scheme for Improving Educational Materials of Teachers in Public Elementary Schools**

Table 2. *Level of Scheme for Improving Educational Materials of Teachers in Public Elementary Schools*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Item No.** | **Items** | **SD** | **Mean** | **Descriptive Level**  |
| 1. | *The teacher…*supports the creation of educational frameworks centered on learning progressions in education | 0.87 | 4.37 | Very High |
| 2. | develops teacher resources and models for professional development | 0.89 | 4.35 | Very High |
| 3. | demonstrates educational materials and professional development would look over multiple grade bands | 0.87 | 4.33 | Very High |
| 4. | supports students building deep understanding of a key concept over time | 0.89 | 4.28 | Very High |
| 5. | contributes to students’ development and understanding to participate in scheme for developing educational materials careers | 0.84 | 4.34 | Very High |
| 6. | supports the creation and substantial revision of comprehensive curricula and supplemental educational materials that are research-based | 0.78 | 4.35 | Very High |
| 7. | proposes educational materials that exhibit a coherent content framework that is aligned with standards | 0.77 | 4.19 | High |
| 8. | focuses on appropriate and important topics at each grade level | 0.83 | 4.35 | Very High |
| 9. | enhances student learning and make a significant and noticeable impact on the national market for educational materials | 0.77 | 4.34 | Very High |
| 10. | provides learning experiences that enhance student understanding | 0.80 | 4.33 | Very High |
| 11. | supports the creation of tools for assessing student learning that are tied to nationally developed standards | 0.80 | 4.33 | Very High |
| 12. | reflects the most current thinking on how students learn | 0.90 | 4.34 | Very High |
| 13. | focuses on developing resources that provide technical assistance to schools and districts in implementing new assessments | 0.87 | 4.18 | High |
| 14. | provides feedback on the educational materials development process | 0.88 | 4.32 | Very High |
| 15. | measures specific desirable outcomes of reform, and differentiate the quality of curricula, materials, and instruction | 0.85 | 4.34 | Very High |
| 16. | supports the research for development of the program and projects | 0.83 | 4.29 | Very High |
| 17. | provides evidence for the effectiveness of materials and feedback for strengthening the portfolio | 0.87 | 4.32 | Very High |
| 18. | identifies possible new directions in educational materials and assessment | 0.85 | 4.28 | Very High |
| 19. | demonstrates the effectiveness and impact of efforts to enhance teachers' and students' learning | 0.82 | 4.30 | Very High |
| 20. | provides guidance to researchers in framing their hypotheses, in choosing their tools and methods, and in testing their theories against the realities of the classroom | 0.80 | 4.33 | Very High |
| **Overall** | **0.72** | **4.31** | **Very High** |

Presented in Table 2 is the level of the scheme for improving educational materials of teachers in public elementary schools, as reflected in the mean scores. The results indicate that the mean scores for each item range from 4.18 to 4.37, with the majority classified as very high. The highest-rated item, "The teachers support the creation of educational frameworks centered on learning progressions in education," received a mean score of 4.37, indicating that teachers strongly emphasize structured educational development. Meanwhile, the item "The teachers support developing resources that provide technical assistance to schools and districts in implementing new assessments," obtained the lowest mean score of 4.18, yet it remains within the high category, suggesting a considerable level of implementation. The overall mean score of 4.31 signifies a very high level of teacher scheme in improving educational materials, demonstrating their dedication to enhancing the quality of instructional resources. Furthermore, the overall standard deviation of 0.72 signifies that responses were relatively consistent, with ratings clustering closely around the mean.

This suggests that most teachers actively engage in the development and implementation of high-quality educational materials, ensuring that instructional resources remain relevant and impactful. Moreover, it highlights the strong alignment among teachers in recognizing the importance of research-based and structured approaches to curriculum and material development, which ultimately enhances student learning outcomes.

This finding aligns with the research of Chisunum and Nwadiokwu (2024), who emphasized that a strong scheme for improving educational materials enhances the quality of instructional resources, making learning more engaging and effective for students. They further explained that teachers who actively participate in developing and refining educational materials contribute to a more structured and research-based curriculum, ensuring that learning objectives are met efficiently. Similarly, Ajani (2024) highlighted that continuous involvement in educational material development allows educators to adapt to evolving pedagogical trends, integrate innovative teaching strategies, and create resources that cater to diverse student needs. Furthermore, Meng (2023) argued that maintaining a strong scheme for improving educational materials fosters collaboration among teachers, promotes professional development, and ensures the consistent implementation of high-quality instructional resources, ultimately enhancing student comprehension and academic performance.

**3.3 Significant Difference in the Scheme for Improving Educational Materials of Teachers in Public Elementary Schools when grouped according to Educational Attainment**

Table 3. *Significant Difference in the Scheme for Improving Educational Materials of Teachers in Public Elementary Schools when grouped according to Educational Attainment*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Educational Attainment** | **Mean** | **SD** | **t-value** | **p-value** | **Remarks** |
| College | 3.85 | 0.62 | 70.06 | 0.000 | Significant |
| Master's | 4.32 | 0.58 |

Presented in Table 3 is the test of significant difference in the scheme for improving educational materials among teachers in public elementary schools when grouped according to educational attainment. An independent t-test was conducted to determine whether a significant difference exists between teachers with a college degree and those with a master's degree. The results show that teachers with a master’s degree (M = 4.32, SD = 0.58) had a higher engagement in improving educational materials compared to those with only a college degree (M = 3.85, SD = 0.62). The computed t-value of 70.06 and a p-value of 0.000 indicate a statistically significant difference at the 0.05 level. This suggests that teachers with higher educational attainment are more proactive in enhancing educational materials, likely due to their advanced training, exposure to research-based teaching strategies, and a deeper understanding of curriculum development. These findings highlight the importance of encouraging further studies and professional development among educators to elevate the quality of instructional materials. Schools and educational policymakers may consider providing incentives or support systems for teachers pursuing graduate studies to foster continuous improvement in teaching practices. Thus, there is a significant difference in the perception of teachers regarding the scheme for improving educational materials when grouped according to educational attainment. This means that teachers with a master’s degree demonstrated a statistically higher level of scheme for improving educational materials compared to those with only a college degree, possibly due to their greater professional development and expertise in instructional material enhancement.

This finding supports the study of Kartamiharja and Sopandi (2020), who emphasized that higher educational attainment equips teachers with advanced knowledge and skills necessary for developing effective instructional materials. They further explained that teachers with postgraduate education are more adept at integrating research-based strategies into their teaching materials, ensuring alignment with curriculum standards and diverse student needs.

Similarly, Fairman et al. (2023) highlighted that educators with advanced degrees are more likely to engage in continuous professional development, leading to improved instructional resource development and innovative teaching approaches. Furthermore, Adeoye et al. (2024) argued that higher academic qualifications enhance teachers' ability to critically evaluate and adapt educational materials, ultimately fostering a more effective and engaging learning environment.

**3.4. Significant Difference in the Scheme for Improving Educational Materials of Teachers in Public Elementary Schools when grouped according to Marital Status**

**Table 4.** *Significant Difference in the Scheme for Improving Educational Materials of Teachers in Public Elementary Schools when grouped according to Marital Status*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Marital Status** | **Mean** | **SD** | **f-value** | **p-value** | **Remarks** |
| Single | 4.10 | 0.60 |  |  |  |
| Married | 3.95 | 0.65 | 47.22 | 0.007 | Significant |
| Separated | 3.62 | 0.58 |  |  |  |

Presented in Table 4 is the test of significant difference in the scheme for improving educational materials among teachers in public elementary schools when grouped according to marital status. A One-Way Analysis of Variance (ANOVA) was conducted to determine whether a significant difference exists among single, married, and separated teachers in their scheme for improving educational materials. The results indicate that single teachers (M = 4.10, SD = 0.60) reported the highest level of engagement, followed by married teachers (M = 3.95, SD = 0.65), while separated teachers (M = 3.62, SD = 0.58) had the lowest level of engagement. The computed f-value of 47.22 and a p-value of 0.007 suggest a statistically significant difference at the 0.05 level. This implies that marital status influences teachers' participation in improving educational materials, with single teachers possibly having more flexibility and time to engage in material development compared to their married and separated counterparts. Thus, there is a significant difference in the perception of teachers regarding the scheme for improving educational materials when grouped according to marital status. This means that single, married, and separated teachers had statistically different levels of scheme for improving educational materials, with single teachers demonstrating the highest initiative, potentially due to fewer familial obligations compared to married and separated teachers.

This finding is consistent with the study of Smith and Gillespie (2023), who stated that personal circumstances, such as marital status, can influence teachers' professional engagement and dedication to instructional material development. They further explained that single teachers often have more flexibility and time to invest in professional growth, allowing them to explore innovative strategies for improving educational materials. Similarly, Atteh et al. (2020) highlighted that married and separated teachers may face additional responsibilities outside of work, which can impact the time and effort they allocate to instructional resource development. Furthermore, Saroyan and Frenay (2023) argued that while all teachers contribute to educational material enhancement, those with fewer external obligations may have greater capacity for research, collaboration, and innovation in improving teaching resources.

**3.5. Significant Difference in the Scheme for Improving Educational Materials of Teachers in Public Elementary Schools when grouped according to Years in Service**

**Table 5.** *Significant Difference in the Scheme for Improving Educational Materials of Teachers in Public Elementary Schools when grouped according to Years in Service*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Years in Service** | **Mean** | **SD** | **f-value** | **p-value** | **Remarks** |
| Less than 5 years | 4.15 | 0.55 |  |  |  |
| 5-10 years | 3.74 | 0.60 | 50.98 | 0.002 | Significant |
| 10 years and above | 3.62 | 0.50 |  |  |  |

Presented in Table 5 is the test of significant difference in the scheme for improving educational materials among teachers in public elementary schools when grouped according to years in service. A One-Way Analysis of Variance (ANOVA) was conducted to determine whether a significant difference exists among teachers with less than 5 years, 5-10 years, and 10 The results reveal that teachers with less than 5 years of service (M = 4.15, SD = 0.55) had the highest engagement in improving educational materials, followed by those with 5-10 years of service (M = 3.74, SD = 0.60), while teachers with 10 years and above (M = 3.62, SD = 0.50) showed the lowest level of scheme for improving educational materials. The computed f-value of 50.98 and a p-value of 0.002 indicate a statistically significant difference at the 0.05 level. This suggests that teachers with fewer years of service are more proactive in improving educational materials, possibly due to their exposure to modern teaching strategies and their enthusiasm for innovative practices. Thus, there is a significant difference in the perception of teachers regarding the scheme for improving educational materials when grouped according to years in service. This means that teachers with varying years of experience had statistically different levels of scheme for improving educational materials, with those having less than 5 years of service demonstrating the highest initiative, likely due to their recent training and familiarity with contemporary educational resources.

This finding is in line with the study of Kononets et al. (2020), who emphasized that early-career teachers tend to be more adaptable to emerging trends in education, as they are often trained with the latest pedagogical techniques. They further explained that teachers with less experience are more likely to experiment with new instructional resources and integrate innovative strategies into their teaching practices. Similarly, Smith and Gillespie (2023) highlighted those younger educators, driven by their recent academic training, are more inclined to engage in the continuous development of educational materials to enhance student learning. Furthermore, Melchor (2024) argued that while experienced teachers bring valuable expertise, ongoing professional development programs are essential to encourage all educators, regardless of tenure, to actively participate in improving instructional materials.years and above of service.

**5. CONCLUSIONS**

Based on the findings of the study, the following conclusions were formulated:

Firstly, most teachers hold a college degree, while others have obtained a master’s degree. In terms of marital status, nearly half of the respondents are single, while the rest are either married or separated. Regarding years in service, many have less than five years of teaching experience, while others have been in service for a longer period. This indicates that teachers come from diverse educational backgrounds and personal circumstances, which may influence their professional perspectives and teaching approaches. Their varying levels of education and experience may also affect their ability to adapt to new teaching methods and instructional strategies. Furthermore, differences in marital status could impact the time and effort teachers dedicate to professional development and instructional material enhancement.

Secondly, the scheme for improving educational materials among teachers is always observed. This implies that teachers consistently prioritize the enhancement of instructional resources, ensuring that students receive high-quality learning materials tailored to their needs. Their active participation in improving educational materials reflects their commitment to fostering a more engaging and effective learning environment. Additionally, this dedication suggests that teachers recognize the importance of continuously updating and refining teaching tools to align with evolving educational standards and student learning needs.

Lastly, a significant difference was found in teachers' scheme for improving educational materials when grouped according to educational attainment, marital status, and years in service. This suggests that professional qualifications, personal commitments, and teaching experience all play a role in shaping teachers’ scheme for improving educational materials, with more experienced and highly educated teachers likely contributing more to curriculum development. Teachers with advanced degrees may have greater exposure to research-based instructional strategies, allowing them to develop more effective and innovative educational resources. Additionally, differences in years of service and marital status may influence teachers’ willingness and ability to engage in professional development activities related to curriculum enhancement.

**6. RECOMMENDATIONS**

Based on the findings and conclusions of this study, the following recommendations were proposed:

First, since teachers demonstrated a very high level of scheme in improving educational materials, it is essential to sustain and further enhance their efforts. Schools may support this by providing resources, funding, and collaborative opportunities for teachers to develop innovative and research-based instructional materials. Organizing workshops, seminars, and peer-sharing sessions focused on curriculum design and material development may also help teachers refine their skills. Furthermore, teachers may take the initiative to explore new teaching strategies and seek out relevant professional learning opportunities to continuously improve their instructional materials. Engaging in collaborative projects with colleagues and staying updated with the latest educational trends may also help them maintain a high standard in developing learning resource. Teachers are encouraged to pursue a master’s degree to expand their expertise and improve their ability to develop innovative educational materials. Furthermore, teachers may actively participate in professional development programs and mentorship activities to refine their ability to create and utilize high-quality instructional materials effectively.

Secondly, given the diverse educational backgrounds and teaching experiences of public elementary school teachers, it is recommended that school administrators provide tailored professional development programs. These programs may address the varying needs of teachers based on their educational attainment and years in service. Schools may offer advanced training for teachers with master’s degrees to further enhance their instructional material development skills while also providing foundational support for teachers with only a college degree. Additionally, mentorship programs may be implemented to allow experienced teachers to guide newer educators in improving educational materials, ensuring a continuous transfer of knowledge and best practices.

Also, given the significant differences in teachers' schemes for improving educational materials based on educational attainment, marital status, and years in service, it is recommended that DepEd Officials allow schools to adopt a more personalized approach in capacity-building initiatives. Recognizing that teachers’ ability to contribute to instructional material development may vary based on their experience and personal circumstances, DepEd administrators may create flexible professional development opportunities that cater to different groups. For example, single teachers who may have more time for professional growth could be encouraged to take leadership roles in material development projects, while married or more experienced teachers may be given structured schedules that allow for work-life balance while still contributing to instructional improvement. Schools may also explore policies that provide incentives for teachers to actively engage in developing high-quality learning resources, ensuring that all educators remain motivated and committed to this initiative. Teachers, on their part, may take the responsibility to maximize their potential by participating in relevant training programs and utilizing their expertise to enhance instructional materials for the benefit of their students.

Future researchers may investigate additional factors that influence teachers' schemes for improving educational materials, such as institutional support, access to resources, and the impact of evolving educational policies. Exploring these aspects may provide deeper insights into how schools can further enhance instructional material development, leading to more effective teaching and learning outcomes. Teachers may also collaborate with researchers to share their experiences and insights on improving educational materials, contributing valuable knowledge to future studies.

Consent (where ever applicable)

This study was conducted in full compliance with established ethical standards to ensure the protection of the rights, dignity, and well-being of all participants. Prior to data collection, the researcher obtained all necessary approvals from relevant institutional bodies, including an endorsement from the Dean of the Graduate School and ethical clearance from the institution’s Ethics Review Committee. In addition, formal permission was secured from the Office of the Schools Division Superintendent of Davao Oriental, which authorized the conduct of the study in public elementary schools within the division. The research process followed the ethical principles outlined by Pregoner et al. (2025), aligning with current standards for research involving human participants in educational settings. Participation was entirely voluntary, and all participants were fully informed about the purpose of the study, the procedures involved, and their right to decline or withdraw at any time without any negative consequences. Informed consent was obtained to confirm their understanding and willingness to participate. To uphold privacy and confidentiality, no personal identifiers were recorded, and all responses were kept strictly confidential. The information collected was used solely for academic purposes, affirming the researcher’s commitment to ethical responsibility, transparency, and professionalism throughout the study.

Disclaimer (Artificial Intelligence)

The author(s) hereby declare that generative AI technologies have been used during the writing and editing of this manuscript. The details of the AI usage are as follows:

1. Grammarly: Used for grammar and spellchecking, as well as suggestions for improving sentence structure and overall clarity.
2. Quillbot: Employed for paraphrasing and refining sentence flow to enhance readability and coherence.

References

Abdulaziz, A., Bashir, M., & Alfalih, A. A. (2022). The impact of work-life balance and work overload on teacher’s organizational commitment: do Job Engagement and Perceived Organizational support matter. *Education and Information Technologies*, *27*(7), 9641-9663. <https://link.springer.com/article/10.1007/s10639-022-11013-8>

Adeoye, M. A., Prastikawati, E. F., & Abimbowo, Y. O. (2024). Empowering learning: Pedagogical strategies for advancing 21st century skills and quality education. *Journal of Nonformal Education*, *10*(1). <https://journal.unnes.ac.id/journals/jone/article/view/1451>

Ajani, O. A. (2024). Enhancing Pre-Service Teacher Education: Crafting a Technology-Responsive Curriculum for Modern Classrooms and Adaptive Learners. *Research in Educational Policy and Management*, *6*(2), 209-229. <https://repamjournal.org/index.php/REPAM/article/view/246>

Atteh, E., Martin, G., Oduro, A. T., Mensah, F. A., & Gyamfi, R. (2020). An overview on influence of work-family life conflict among female teachers and their job satisfaction in schools. *Asian Journal of Education and Social Studies*, *9*(2), 48-58. <https://www.academia.edu/download/92649457/56722.pdf>

Banjal, E., Berame, F. J., & Elesio, J. (2025). Harmonizing Education: A Case Study on the Constructive Alignment Approach to Crisis in Teacher Education Curriculum and Licensure Examination Competencies. *International Journal of Research in Social Science and Humanities (IJRSS) ISSN: 2582-6220, DOI: 10.47505/IJRSS*, *6*(1), 24-43. <https://www.ijrss.org/index.php/ijrss/article/view/482>

Cayabas Jr, J. P., & Sumeg-ang, D. A. (2023). Challenges and interventions in developing instructional materials: Perspectives of public school teachers in basic education. *International Journal of Innovative Research and Scientific Studies*, *6*(4), 849-855. <https://www.researchgate.net/profile/Johnny-Cayabas-Jr/publication/373823702_Challenges_and_Interventions_in_Developing_Instructional_Materials_Perspectives_of_Public_School_Teachers_in_Basic_Education/links/64fee87e849bbb203b8fa39c/Challenges-and-Interventions-in-Developing-Instructional-Materials-Perspectives-of-Public-School-Teachers-in-Basic-Education.pdf>

Chisunum, J. I., & Nwadiokwu, C. (2024). Enhancing Student Engagement through Practical Production and Utilization of Instructional Materials in an Educational Technology Class: A Multifaceted Approach. *NIU Journal of Educational Research*, *10*(2), 81-89. <https://www.ijhumas.com/ojs/index.php/NIUJED/article/view/2002>

Fairman, J. C., Smith, D. J., Pullen, P. C., & Lebel, S. J. (2022). The challenge of keeping teacher professional development relevant. In *Leadership for professional learning* (pp. 251-263). Routledge. <https://www.taylorfrancis.com/chapters/edit/10.4324/9781003357384-17/challenge-keeping-teacher-professional-development-relevant-janet-fairman-david-smith-paige-pullen-steve-lebel>

Fasinro, K. S., Akinkuotu, F. A., & Aina, J. O. (2024). Curriculum Implementation: Challenges and the Prospect of Education Resource Centres to Aid Effective Implementation. *African Educational Research Journal*, *12*(1), 1-5. <https://eric.ed.gov/?id=EJ1419593>

Kartamiharja, M. R., & Sopandi, W. (2020). Educative curriculum material and its impact on the teachers’ instructional performance and learners’ achievement. *International Journal of Learning, Teaching and Educational Research*, *19*(1), 206-230. <http://www.ijlter.net/index.php/ijlter/article/view/503>

Kononets, N., Ilchenko, O., & Moklıak, V. (2020). Future teachers resource-based learning system: experience of higher education institutions in Poltava city, Ukraine. *Turkish Online Journal of Distance Education*, *21*(3), 199-220. <https://dergipark.org.tr/en/doi/10.17718/tojde.762054>

Kusmawan, A., Rahman, R., Anis, N., & Arifudin, O. (2025). The Relationship Between Teacher Involvement in Curriculum Development and Student Learning Outcomes. *International Journal of Educatio Elementaria and Psychologia*, *2*(1), 1-12. <https://journal.ypidathu.or.id/index.php/ijeep/article/view/1890>

Melchor, R. (2024). *Educators’ Perceptions and Experiences of Professional Learning in Spanish Dual-Language Immersion Programs* (Doctoral dissertation, California Lutheran University). <https://search.proquest.com/openview/8dd6c83af8ed3f6e75590563cd266a33/1?pq-origsite=gscholar&cbl=18750&diss=y>

Meng, S. (2023). Enhancing teaching and learning: Aligning instructional practices with education quality standards. *Research and Advances in Education*, *2*(7), 17-31. <https://www.paradigmpress.org/rae/article/view/703>

Otieno, C. (2024). Exploring Teacher Deployment Challenges in Public Junior Secondary Schools in Nandi County, Kenya. <https://jriiejournal.com/wp-content/uploads/2024/05/JRIIE-8-2-012.pdf>

Pregoner, J. D. (2024). Research approaches in education: A comparison of quantitative, qualitative and mixed methods. *IMCC Journal of Science*, *4*(2), 31-36. <https://hal.science/hal-04655066/>

Pregoner, J. D., Leopardas, R., Ganancial, I. J., Baguhin, M., & Sedo, F. (2025). Ethical Issues in Conducting Research Using Human Participants in the Post-COVID Era. *IMCC Journal of Science*, *5*(1), 1-9. <https://hal.science/hal-05073466/>

Saroyan, A., & Frenay, M. (Eds.). (2023). *Building teaching capacities in higher education: A comprehensive international model*. Taylor & Francis. <https://books.google.com/books?hl=en&lr=&id=OhDJEAAAQBAJ&oi=fnd&pg=PT7&dq=while+all+teachers+contribute+to+educational+material+enhancement,+those+with+fewer+external+obligations+may+have+greater+capacity+for+research,+collaboration,+and+innovation+in+improving+teaching+resources&ots=tCJgQGkCpV&sig=OnXbKsSfyFfbFyFYRAa4ky9WSPU>

Smith, C., & Gillespie, M. (2023). Research on professional development and teacher change: Implications for adult basic education. In *Review of Adult Learning and Literacy, Volume 7* (pp. 205-244). Routledge. <https://www.taylorfrancis.com/chapters/edit/10.4324/9781003417996-7/research-professional-development-teacher-change-implications-adult-basic-education-cristine-smith-marilyn-gillespie>

Smith, C., & Gillespie, M. (2023). Research on professional development and teacher change: Implications for adult basic education. In *Review of Adult Learning and Literacy, Volume 7* (pp. 205-244). Routledge. <https://www.taylorfrancis.com/chapters/edit/10.4324/9781003417996-7/research-professional-development-teacher-change-implications-adult-basic-education-cristine-smith-marilyn-gillespie>

Toledo-Sandoval, F. (2020). Local culture and locally produced ELT textbooks: How do teachers bridge the gap?. *System*, *95*, 102362. <https://www.sciencedirect.com/science/article/pii/S0346251X20307223>

Torres, J. L. (2024). INSTRUCTIONAL MATERIALS IN ENGLISH LANGUAGE TEACHING: REGISTER AND ACCESS TOWARDS TRANSCENDENCE AMIDST CRISIS. *Ignatian International Journal for Multidisciplinary Research*, *2*(6), 1883-1908. <https://icceph.com/wp-content/uploads/2024/06/INSTRUCTIONAL-MATERIALS-IN-ENGLISH-LANGUAGE-TEACHING-REGISTER-AND-ACCESS-TOWARDS-TRANSCENDENCE-AMIDST-CRISIS.pdf>

Wang, E., Tuma, A. P., Doan, S., Henry, D., Lawrence, R., Woo, A., & Kaufman, J. H. (2021). Teachers’ perceptions of what makes instructional materials engaging, appropriatel y challenging, and usable. *RAND Corporation*. <https://www.rand.org/content/dam/rand/pubs/research_reports/RRA100/RRA134-2/RAND_RRA134-2.pdf>

Zein, S., Sukyadi, D., Hamied, F. A., & Lengkanawati, N. S. (2020). English language education in Indonesia: A review of research (2011–2019). *Language Teaching*, *53*(4), 491-523. <https://www.cambridge.org/core/journals/language-teaching/article/english-language-education-in-indonesia-a-review-of-research-20112019/12882E746B1EE9EE47A6671C08AC27A8>

Zhao, Y., Zhao, M., & Shi, F. (2024). Integrating moral education and educational information technology: A strategic approach to enhance rural teacher training in universities. *Journal of the Knowledge Economy*, *15*(3), 15053-15093. <https://link.springer.com/article/10.1007/s13132-023-01693-z>