

Utilization of Educational Materials and Teaching Efficiency of Public Secondary Teachers in Tagum City

Gemma Lou C. Litang

Abstract. This study examined the relationship between the utilization of educational materials and teaching efficiency among high school teachers in Tagum City. Employing a non-experimental quantitative research design, data were collected from 150 high school teachers selected through stratified random sampling. The researcher-developed and modified questionnaire, based on established sources and pilot-tested for clarity, was used to measure both the extent of educational material utilization and teaching efficiency. Results revealed consistently high mean scores across indicators of access, engagement, assessment, classroom management, student engagement, and professional development, with overall ratings described as “Extensive.” Notably, the lowest mean was observed for the real-world application of concepts, suggesting an area for targeted improvement. Correlation analysis indicated a significant positive relationship between the utilization of educational materials and teaching efficiency, underscoring the importance of quality resources in enhancing instructional practices and student outcomes. These findings align with contemporary educational theories such as Constructivism and Universal Design for Learning, which emphasize the value of accessible, interactive, and inclusive materials. The study highlights the need for continued investment in educational resources, infrastructure, and professional development.

KEY WORDS

1. Educational materials
2. teaching efficiency
3. Philippines
4. quantitative

Date Received: April 05, 2025 — Date Reviewed: May 15, 2025 — Date Published: June 18, 2025

1. Introduction

In this constantly changing world of education, closely tied to the effective teaching and learning outcomes, the strategic utilization of instructional materials has become a key ingredient in enhancing efficient teaching and learning. The lives of the public secondary school teachers in the Philippines, specifically in the Tagum City, it cannot be said, that the use of such materials is a supplement to teaching, it is essential to withstanding the varying teaching needs of students, using limited resources, and

faced with the rising academic demands. Efficient use of education content on classroom performance is a very important aspect in the overall performance of the teachers and engagement of the students particularly in large educational institutions or more so in cases of resource poor public schools. Instructional materials encompass a broad range of tools used to facilitate learning, including textbooks, modules, visual aids, digital content, and hands-on resources. These materials help bridge the gap

between abstract concepts and student understanding by making lessons more interactive, contextual, and accessible. As Reimers and Schleicher (2020) note, quality educational resources can improve content delivery, promote student participation, and allow teachers to differentiate instruction based on learners' varying abilities. In turn, this contributes to higher teaching efficiency, which involves achieving desired learning outcomes with optimal use of time, resources, and effort. Teaching efficiency is a multidimensional concept that reflects a teacher's ability to manage time effectively, deliver the curriculum clearly, and respond flexibly to students' academic needs. It is not solely determined by pedagogical skills but also by access to and proper use of learning materials (Darling-Hammond et al., 2020). When teachers have sufficient, relevant, and well-designed instructional resources, they can plan more engaging lessons, conduct meaningful assessments, and adjust strategies to address learning gaps. However, despite the recognized importance of instructional materials, many public secondary schools in the Philippines still struggle with limited access to quality resources. In Tagum City, for example, disparities exist between schools in terms of textbook availability, digital infrastructure, and teaching aids. According to DepEd Region XI (2023), while some urban schools benefit from support programs, others particularly those serving lower-income communities continue to face shortages in basic instructional supplies. These gaps often force teachers to improvise, reuse outdated materials, or invest their own money to meet classroom needs, affecting both morale and instructional quality. This need has become so urgent now that the focus is on more technologically-oriented and pliable types of instruction due to the events that happened after the COVID-19 pandemic. The shift to blended education also showed numerous unfair inequalities in distribution of resources and the necessity of easily accessible and flexible

materials. Research has demonstrated that educators who had sufficient access to educational technologies and learner-focused materials were more prepared to respond to the challenges during the pandemic, which is why it is possible to attribute teaching sustainability to material use (Quimba Rosellon, 2021). From a theoretical perspective, frameworks such as Vygotsky's sociocultural theory and the Universal Design for Learning (UDL) provide support for the role of instructional materials in effective teaching. Vygotsky (1978) emphasizes that learning is mediated by tools, including educational resources, which help learners make meaning through social interaction. Meanwhile, UDL advocates for the design of flexible materials that meet the needs of all learners, promoting inclusivity and accessibility (Rose Meyer, 2018). These theories align with the goals of public secondary education in Tagum City, which aim to improve student achievement while addressing diverse educational contexts. In addition, effective use of instructional resources leads to the empowerment of a teacher and independence in instruction. Properly equipped teachers will experiment with new approaches to their work, modifying the lesson to support the needs of students, as well as engage in collaborative planning. Not only does this enhance teaching in the classrooms but it also fosters the culture of constant improvement and collective responsibility in schools. Instructional materials, thus, are not only learning aids to students but to the teacher as a professional as well, better to fine tuning his/her skills and utilize the most out of instructional time. Despite the growing attention to instructional materials and teaching efficiency globally, there is a lack of localized research focusing on how these factors interact within specific regions like Tagum City. While national policies support the procurement of materials, implementation at the school level varies widely, often depending on administrative capacity and external support. This study,

therefore, seeks to fill that gap by exploring how public secondary teachers in Tagum City utilize educational materials and how this affects their teaching efficiency. By examining the way in which the use of materials can correspond to the performance of teachers, the research can come up with evidence that can be used to make decisions concerning the planning of the education process as well as teacher training and allocation of resources used. Results can be used to facilitate programs to enhance access and utilization of instructional resources and eventually lead to overall objectives of enhancing quality and equity of Philippine public school education.

1.1. Review of Significant Literature —

This section explores the relationship between the utilization of educational materials and teaching effectiveness, drawing on both theoretical frameworks and empirical findings. Key themes include access to resources, instructional innovation, teacher competence, and the evolving role of technology in contemporary classrooms.

1.1.1. Utilization of Educational Materials—Educational materials play a crucial role in shaping learning environments. Their availability and quality influence not only student engagement but also educational equity (ERG, 2017; Niyang, 2023). Physical infrastructure—such as libraries, laboratories, and classroom design—contributes to student well-being and learning outcomes (Walford, 2018). However, disparities in resource distribution across regions and socioeconomic groups often limit access, perpetuating educational inequality.

Teachers rely primarily on curriculum-based materials, especially textbooks, but often supplement these with external resources to enhance engagement and relevance (Karampelas et al., 2018; Davis et al., 2016). The choice to use alternative materials is shaped by teacher motivation, student needs, and curriculum flexibility (Forbes, 2013; Casey, 2016). Open Educa-

tional Resources (OER) and teacher-generated content are increasingly valued for promoting inclusive, adaptive instruction (Martínez Torres, 2021; Cronin MacLaren, 2018).

Emerging theories highlight the role of constructivist, cognitive load, and universal design frameworks in guiding material development. Digital tools such as simulations and gamified platforms enhance learning by promoting interaction, accessibility, and motivation (Hrastinski Aghae, 2018; Van Merriënboer Kester, 2018; Huang Soman, 2018). Additionally, TPACK (Technological Pedagogical Content Knowledge) guides educators in aligning content, pedagogy, and technology to support effective instruction (Koehler et al., 2018).

Incorporating culturally responsive materials and applying learning analytics can help teachers better tailor instruction to diverse learners, fostering inclusion and improving outcomes (Siemens, 2018; Bottiani, 2019). Theories such as Resource-Based Learning (Chou Chen, 2020) and Diffusion of Innovations (Greenhalgh et al., 2020) further reinforce the importance of thoughtful selection and integration of instructional materials in evolving educational contexts.

1.1.2. Teaching Effectiveness—Effective teaching involves instructional creativity, professional competence, classroom management, and responsiveness to learner needs. Teacher certification, pedagogical expertise, and reflective practices are consistently linked to improved student performance (Tamsah et al., 2021; Baer, 2020; Juandi Sontani, 2017). Teachers who demonstrate high self-efficacy are more likely to implement innovative methods and create supportive environments (Chen et al., 2019; Gay, 2018).

Technology integration has transformed teaching strategies, shifting from teacher-centered to learner-driven approaches. Online platforms, blended learning, and distance education offer flexibility but demand new com-

petencies from educators (Tian, 2018; Aydin, 2017; Cabi, 2018). The COVID-19 pandemic accelerated this shift, exposing gaps in digital readiness and emotional preparedness among teachers (De Witt, 2020; Ak, 2021; Badia et al., 2019).

Moreover, classroom management and student-teacher relationships remain central to learning success. Communication styles, discipline strategies, and inclusive classroom climates affect participation and academic outcomes (Aslan, 2022; Zhou et al., 2018; Van Lancker Parolin, 2020). Leadership, especially principal-led transformational leadership, plays a vital role in empowering teachers and enhancing teaching quality (Leithwood et al., 2020; Wu, 2019).

Finally, ongoing professional development and collaborative school culture foster continuous improvement in teaching practices. Tailored training, peer mentorship, and reflective practice are crucial for sustaining high teaching standards and adapting to educational innovations.

1.2. Synthesis—The utilization of educational materials is deeply influenced by both the physical and social dimensions of the educational environment, as well as by evolving pedagogical theories and technological advancements. Research highlights that equitable access to well-designed resources-ranging from traditional textbooks to digital and open educational materials-not only supports academic achievement but also contributes to student happiness, engagement, and the overall quality of the school experience. Theories such as Constructivism, Universal Design for Learning, Cognitive Load Theory, and Social Learning Theory all emphasize the need for materials that are interactive, accessible, and adaptable to diverse learning needs, while gamification and digital tools further enhance motivation and participation. Teachers' autonomy and motivation play a crucial role in selecting, adapting,

and integrating both curriculum-based and outside materials to enrich lessons and boost student participation. Ultimately, the effective use of educational materials-supported by inclusive policies, adequate infrastructure, and teacher empowerment-remains a cornerstone for creating engaging, equitable, and high-quality learning environments that foster both academic and personal growth. The utilization of educational materials is a multifaceted process shaped by the broader educational environment, curriculum demands, technological advancements, and teacher agency. Research underscores that well-resourced, safe, and supportive school environments significantly enhance students' happiness, communication skills, and academic outcomes, while disparities in resource distribution perpetuate educational inequality and limit opportunities for many learners. Educational materials, whether curriculum-based or teacher-selected, serve as the backbone of instructional practice, with their effectiveness influenced by both the flexibility of the curriculum and the teacher's motivation and capacity to adapt or supplement provided resources. Recent studies highlight the growing impact of digital and open educational materials, interactive tools, and gamification, which, when thoughtfully integrated, can boost student engagement, motivation, and learning outcomes. Theories such as Constructivism, Universal Design for Learning, Cognitive Load Theory, and Social Learning Theory all emphasize the importance of materials that are accessible, interactive, and tailored to diverse student needs. However, challenges remain, including the need for ongoing teacher training, adequate infrastructure, and supportive leadership to ensure effective integration of these materials, especially in contexts transitioning to online or blended learning. Ultimately, the synthesis of research and theory reveals that the strategic and equitable use of educational materials-supported by teacher creativity, technological integration, and responsive school environments-

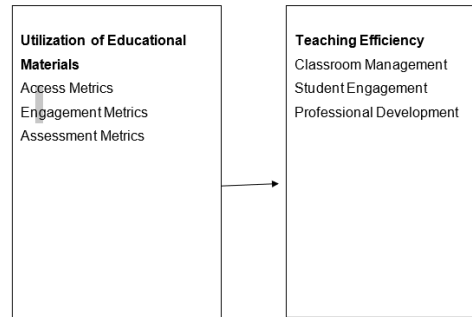


Fig. 1. The Conceptual Framework of the Study

is essential for fostering high-quality, inclusive, and engaging educational experiences.

1.3. Theoretical and Conceptual Framework—The study by Anwar et al. (2025) presents a systematic review of recent research on pre-service teachers' integration of technology during teaching practice. It identifies current trends, key theoretical frameworks like TPACK, and the challenges and supports influencing technology use in classrooms. The study emphasizes the importance of institutional support, professional training, and pedagogical alignment to ensure effective and sustainable technology integration in teacher education. This foundational view is supported by more recent research, which highlights that the presence or absence of adequate resources directly influences both teaching practices and student outcomes (Bottiani, 2019; Niyang, 2023). On this basis, the present study acknowledges the fact that the use of education materials is a complex process influenced by other factors that might vary regionally and learning systems. Utilization of educational materials has three fundamental indicators operationalized in this research, Access (sufficiency and availability of resources), Engagement (depth of involvement and frequency of the teacher contact with materials), and Assessment Metrics (using materials to carry out formative and summative evaluations). These dimensions are justified with the recent literature on the importance of

not only the provision of resources but also the development of meaningful interaction and effective practices of assessment (Smith Brown, 2018; Martínez Torres, 2021). The Teaching Efficiency as the dependent variable is defined by the conceptualization of Kember and Leung (2009) who observed that teaching efficiency is a multi-level and situation based construct. Although successful teaching may be gauged by the level to which learners are able to acquire specified targeted learning outcomes, according to Kember and Leung, learning is actually a two-way traffic where tutoring and learning are involved. In the present study, the efficiency in the field of teaching is considered based on three indicators indicating Classroom Management (the capacity to establish a neat and productive learning process), Student Engagement (the degree to which students engage and commit themselves to learning activities) and Professional Development (continuing teacher growth and skill improvement). As illustrated in Figure 1, the study's conceptual framework consists of two primary variables. The independent variable is the utilization of educational materials, encompassing both the presence and adequacy of essential instructional tools and the strategies employed to maximize their impact. The dependent variable is teaching efficiency, defined as the educator's capacity to facilitate student learning and holistic development effectively.

1.4. Statement of the Problem—The primary focus of this research paper is to use statistical analysis to find out the statistically significant corroboration between the utilization of instructional materials and the instructor effectiveness of Tagum City high school educators. To be precise, the following objectives were attempted to be answered through this study:

- (1) What is the extent of utilization of educational materials in terms of:
 - (1) Access;
 - (2) Engagement; and
 - (3) Assessment Metrics
- (2) What is the extent of the teacher's efficiency in terms of:
 - (1) Classroom management;
 - (2) Student Engagement; and
 - (3) Professional development
- (3) Is there a significant relationship between utilization of educational materials and public secondary school teachers' efficiency in Tagum City?

1.5. Hypothesis—The null hypotheses to be tested at 0.05 significance level were as follows: H01: The utilization of educational material is not founded in connection with teaching efficiency H02: Indicators of utilization of the educational materials do not affect the efficiency on teacher in Tagum City.

Considering the above problem situation, the researcher finds it appropriate to propose the study as they examines the nexus between the use of educational materials and teacher effectiveness. Therefore, the kind of study the researcher considers will help him in advancing the identified sectors of the academe. Teachers The findings are essential to the teaching personnel for they are the main respondents of this study; they will disseminate guidelines and information formulated by the proponent to them; hence, this will help them to be more effective and resourceful in maximizing the educational resources. Learner Learners in this study refer to the public secondary school students in Tagum City who are the direct beneficiaries

of the educational process facilitated by their teachers. They are considered as the primary recipients of instruction and the target group for whom educational materials are utilized, and their engagement, performance, and learning outcomes serve as key indicators in assessing the teaching efficiency of their teachers.

The following terms were given specific operational definitions for this study: Utilization of educational materials As use in this study, conceptually, it refers to how teachers and students use resources like textbooks and online tools to help with learning and teaching, Operationally, this can be measured by how often and how long they are used, how involved users are, the variety of materials used, their impact on learning, and how easy they are to access. Teaching efficiency As used in this study, conceptually, it refers to how well teachers help students learn using the least amount of time and resources. Operationally, this can be measured by looking at students test scores, the time needed to teach, resource use, student engagement, and teaching practices.

2. Methodology

This section outlines the research design, participants, instruments used, procedures for data collection, and methods of data analysis. By detailing the research design, identifying the research

respondents, and selecting an appropriate research instrument, the study systematically gathers and analyzes data to provide meaningful insights.

2.1. Research Design —This was conducted through the use of a quantitative form of study where the outcome of the use of the educational materials to improve the teaching effectiveness of the teachers in Tagum City was to determine the level of classroom management, engagement of the students as well as the professional development of the teachers in the secondary schools. Quantitative research, presented in numerical form and analyzed through statistics and mathematical models, involves the collection of data to quantify information and subject it to statistical treatment to support or refute knowledge claims (Williams, 2018). This study comprises one independent and one dependent variable, each with corresponding indicators that influence the variables under investigation. Therefore, the researchers provided the test instrument as the main instrument of gathering to understand the influence of the use of educational materials on teaching efficiency of the teachers of the Tagum City public secondary schools based on this pattern because it would facilitate the collection of required data and introduce the specific recommendations regarding the analysis of teaching efficiency, provided that the latter is possible.

2.2. Research Respondents —The study respondents were the educators of Tagum City secondary schools, 150 respondents were filtered using stratified random sampling method, a sampling methodology involving population division into smaller sub groups, or strata, by shared characteristics; stratified random sampling was used in the study, as described by Shi (2015), since the population was heterogeneous and therefore could be classified with auxiliary information. Some inclusion criteria were applied in the selection of the respondents based on those who will be able to give information that the study aims, only the permanent-regular

teachers in Tagum City Secondary schools who were free of administrative and crimes cases were selected as respondents; the study was limited to answer the research questions; the performance ratings of the teachers were not considered in the study.

2.3. Research Ethics —The rules required, which is the protocol to be followed as the best practice guideline in the conducting of the research study in accordance to the study protocol assessment criteria, were realized promptly by the researcher especially in dealing with the population and data. The questionnaires filled in the survey and the authors who supported them were forwarded to be evaluated. When the Ethics Committee granted the approval, the researcher was ready to move to the next step of the research. Informed consent The researcher requested permission to respondents in the form of written informed consent. They have been well informed regarding the aim of the study, and sufficient explanations were made to them to understand better the reason of their participation so that they can know whether they want to participate or not. It was clarified that the participation of the respondents in the study was voluntary. When they were unwilling to take part in the study, they were not compelled by the developer of the research. In addition, the researcher was careful to mental well being of respondents. A written consent of the respondents was obtained. The researcher has explained to the respondents what the research was trying to accomplish that the study would be undertaken on the importance of educational management in improving teacher professionalism.

Vulnerability of Research Participants The respondents used in the study were the teachers hence not vulnerable because all of them were aged and not too vulnerable psychologically. The researcher highlighted the fact that

the survey was placed on the convenience of the respondents. The researcher also shielded the privacy of the information revealed

Privacy and Confidentiality The Data Privacy Act of 2012 was noted in this study. To guard the identities of the participants, the researcher made sure that the data gathered could not be reversed to the participants, who were the actual sources of information. Besides, the researcher made sure that personal information was not passed without the consent of the respondents. So, access was limited only to the researcher so that he could be guaranteed that no personal data was revealed. In order to ensure that the privacy of the respondents is maintained, it was ensured that only the researcher could access the research information during the survey. Once the data required was obtained, the researcher destroyed all the questionnaires so that none could enter the records of the respondents. **Risk, Benefits, and Safety** When the researcher was giving the survey questionnaires to the respondents, he did not hide the nature of participation that the respondent was taking; however, he clearly explained to the respondents the purpose and advantage of the study, and how confidential their answers will remain to the respondent, which was clearly indicated in the online survey questionnaire. The study was unlimited in that the respondents could pose questions concerning the study. Moreover, the researcher made sure that the respondents suffered no form of harm at all. Besides, the questionnaire and interview guide that were to be implemented in this research study did not have any derogatory or forbidden statements that were likely to offend the respondents of the study. The research was termed as purely academic in gathering academic data regarding the study and they were not requested to give personal information. To alleviate inconveniences, the researcher took care of making sure that the respondents were given sufficient time in responding to the survey questionnaire online. The respondents have

been allowed to confer on themselves the right of not responding to questions that cause them any form of psychological or emotional discomfort and they were allowed to withdraw as a respondent to the study held on them in case they felt that they could not talk about the kind of information being sought. The researcher wished their participation and prioritized the welfare of the people as the most important aspect of conducting the research. **Justice** The researcher considered all the respondents as equal in the selection process despite being respondents of the survey to ensure non-biasness in the selection of respondents. The researcher lacked bias when picking respondents to carry out a study. Each of those who meet the qualifications of being bonafide permanent-regular secondary teachers in the schools some of which were selected purposely were included. In the course of research, the researcher also respected the respondents by not holding up their time as much as possible. The researcher took tokens to the respondents as a way of compensating the time that the respondents consumed in the data gathering process. These were tokens that were a collection of souvenirs. These tokens were dispatched by courier and these were then carefully sealed in a package. In addition, it also sanitized the tokens before sending them directly to their doorstep. **Transparency** Communication related to the research was performed in a sincere and transparent manner. The researcher did the methods that are crucial in this study with sufficient measures to ensure the welfare of the participants. All the relevant materials that facilitated the analysis of data were provided. It is noteworthy that the researcher outlined the level of the participation of the respondents in this study and disclosed that the researcher would ensure objectivity in analyzing the data and the presentation of the results of the study. **Qualification of the Researcher** The researcher took care that any other reason such as the conflict of interest would not interfere with the responses of the

respondents. The findings of the study could be accessed by the respondents and the parents and school administrators of the schools involved in the survey since there was possibility to access it as long as they adhered to proper procedure to ensure anonymity of the respondents. The researcher also thanked the effort of all the individuals who made the research a success; a copy of the research results was also furnished to the Division of Tagum City, which now these people would be able to get access to the research results as well and utilize it in learning and additional reading. Adequacy of Facilities The researcher took care of the other causes of interference such as conflict of interest to answer the respondents. School administrators of the participating schools, the respondents and parents could get access to the findings of the study, as it could be shared because they could be provided with the information as long as they applied the right procedure to safeguard the identity of the respondents. The researcher also recognized the participation of all the individuals who participated in the success of the research; a copy of the research results had to be furnished to the Division of Tagum City so the respondents

could have free access to it, thereby learning and studying more. Community Involvement It was regarded as good practice to include the community in all the steps of a research program including planning, doing and reporting. Therefore, the researcher intended to disseminate the community with the findings produced. They placed the priority on community involvement when coming up with decisions based on the research agenda, the rightful ways to go about in their context as well as utilizing the results or findings. The community was then informed about the results of this study in the form of gatherings, fora and conferences.

2.4. Research Instruments —The researcher developed the questionnaire for this study by adopting items from various sources, including online materials, and then modifying them to better fit the specific professional context. The questions were also simplified to ensure clarity and enhance respondents' understanding. To determine the level of impact of utilization of educational materials with public secondary school teaching efficiency, the following scale is used.

Range of Means	Description	Descriptive Meaning
4.20 – 5.00	Very High	Utilization of educational materials is always manifested and therefore extensive.
3.40 – 4.19	High	Utilization of educational materials is frequently manifested and therefore extensive.
3.00 – 3.39	Moderate	Utilization of educational materials is sometimes manifested and therefore extensive.
1.80 – 2.59	Low	Utilization of educational materials is seldom manifested and therefore extensive.
1.00 – 1.79	Very Low	Utilization of educational materials is never manifested and therefore extensive.

Similarly, survey questionnaires were also used to measure the level of level of high school teacher's efficiency that was constructed by the

researchers. The following are the parameters that were used to measure the level of high school teacher's efficiency.

Range of Means	Description	Descriptive Meaning
4.20 – 5.00	Very High	The teaching efficiency of high school teachers is always manifested and therefore extensive.
3.40 – 4.19	High	The teaching efficiency of high school teachers is frequently manifested and therefore extensive.
3.00 – 3.39	Moderate	The teaching efficiency of high school teachers is sometimes manifested and therefore extensive.
1.80 – 2.59	Low	The teaching efficiency of high school teachers is seldom manifested. And therefore extensive.
1.00 – 1.79	Very Low	The teaching efficiency of high school teachers is never manifested and therefore extensive.

2.5. Research Procedure—After ensuring the validity of the research questionnaire, the researcher underwent certain steps in conducting the study: Permission to Conduct the Study The researcher obtained a consent to conduct the study. The Dean of the Graduate School in Rizal Memorial Colleges, Inc., Davao City gave his approval. The permission letters were attached with the endorsement letter of the Dean of the Graduate School in Rizal Memorial Colleges, Inc., Davao City which was in turn endorsed to school principals of the identified high schools in the city of Tagum. Those identified as respondents within Tagum City were contacted through email to clarify the research study and have its consent. In a bid to maintain the anonymity of the survey, the researcher sent a link of the survey and a consent form to the principals and principals then distributed the link to the identified respondents. The description of a voluntary nature of the study was attached to the link, and in case the respondents needed a paper copy, it could be provided. It stated in an email that the principals of the schools of the participants had already given prior approval. Distribution and Retrieval of the Questionnaire Once the researcher received the approval to carry out the study then distribution of the research instrument to the re-

spondents followed. After administration of questionnaires, the associated advantages of the survey were mentioned and expounded to the targeted respondents of the research. The total respondents were allowed a sufficient amount of time to complete the questionnaires. Once the data was collected it was analyzed quantitatively. Collation and Statistical Treatment of Data The data obtained in the questionnaires would then be retrieved and the scores of the various respondents on each indicator would then be tallied to sort the data into the indicators. The analysis was then done with a descriptive and inferential analysis of each of the scores with SPSS.

2.6. Data Analysis —The gathered data will be systematically tabulated and subjected to thorough analysis using appropriate statistical tools: Weighted Mean This statistical tool was employed in the study to compute the extent of utilization of educational materials as well as the level of teaching efficiency among public secondary teachers. It provided a quantitative basis for measuring how frequently and effectively instructional materials were used in classroom settings. Furthermore, the results generated through this tool allowed the researcher to determine possible patterns, trends, and relationships between the variables, which con-

tributed to drawing meaningful conclusions and recommendations. Pearson-r The study applied this statistical tool to identify the correlation that exists between the level of use of educational resources and efficacy of teaching. The measurement of the strength and direction of the linear relationship between two continuous variables is depicted by Pearson- r or Pearson Product-Moment Correlation Coefficient. In our research it was instrumental in determining on whether there is an effective relationship between the frequency and efficiency of the use of educational materials with the overall performance of the teacher in the field of teaching in the secondary schools upon which the teachers in the said schools are appointed. Path Analysis This statistical tool was used in this study to

assess both the direct and indirect relationships between variables within a specified theoretical framework. Path analysis is an extension of multiple regression that enables the examination of complex causal models by analyzing the interconnections among multiple independent and dependent variables simultaneously. In the context of this research, it was utilized to determine how the utilization of educational materials influences teaching efficiency not only directly, but also through potential mediating variables. This method allowed for a more comprehensive understanding of the structural relationships among variables, thereby providing deeper insights into the dynamics that contribute to effective teaching practices.

3. Results and Discussion

This chapter presents the results generated from the data gathered. It is sequenced based on the study's objectives, as presented in the first chapter. Thus, it presents the extent of teacher leadership training and its indicators, the extent of workplace performance and its indicators, and the significant influence between the two variables.

3.1. *Extent of Utilization of Educational Materials—*

3.1.1. *Access—*The data on access metrics indicate that educational materials are widely available and actively utilized in classroom instruction. Teachers make conscious efforts to distribute these materials equitably, ensuring that both urban and rural learners have access

to essential resources. This finding aligns with the observations of Niyang (2023), who emphasized that disparities in resource distribution can reinforce social stratification and limit educational opportunities, especially for students in underserved communities. By ensuring equitable access, the educational system addresses a fundamental requirement for reducing learning gaps and promoting inclusion.

Furthermore, the integration of these materials into classroom instruction reflects a thoughtful alignment with national curriculum standards. According to Karampelas et al. (2018), educational materials that are curriculum-aligned serve as crucial tools in structured learning environments, particularly in subjects like mathematics and science, where textbooks often form the core of instruction.

When these materials are well-aligned with DepEd standards, they not only reinforce prescribed learning outcomes but also empower teachers to deliver lessons with consistency and clarity. Despite generally high levels of access, the data also suggest slight challenges in ensuring equal distribution between urban and rural settings. This supports the findings of ERG (2017) and Walford (2018), who highlighted

Table 1. Access Metrics

Statement	Mean	Descriptive Equivalent
The distribution of their educational materials helps underserved communities gain access to learning resources.	3.45	Extensive
Educators utilize their educational materials as supplementary resources in their teaching.	3.52	Extensive
Students revisit their educational materials for review and practice.	3.48	Extensive
Students from both urban and rural areas access their educational materials.	3.39	Moderately Extensive
Their educational materials align with the curriculum standards set by the Department of Education (DepEd) in the Philippines.	3.57	Extensive
Overall Mean	3.48	Extensive

the importance of physical conditions and infrastructural readiness in shaping educational experiences. Factors such as internet availability, library resources, and classroom infrastructure often impact rural learners more heavily, potentially affecting how and when they can access supplementary materials. In terms of actual usage, both teachers and students are engaging with educational materials in ways that support instructional delivery and learning reinforcement. Tajeddin Asadnia (2023) examined how English language teachers transition from “traditional consumers” to digital materials developers, highlighting a shift toward adapting, contextualizing, and designing materials to better fit classroom needs. They found that teachers evaluate resources based on students’ needs and often personalize or create digital content to foster critical thinking and collaboration. Overall, these findings emphasize that educational materials are playing an increasingly central role in promoting inclusive and efficient education. The observed practices are consistent with rec-

ommendations from Koehler, Mishra, and Cain (2018), whose TPACK framework highlights the necessity for teachers to integrate content, pedagogy, and technology in order to maximize resource effectiveness. When materials are accessible, well-designed, and relevant, they become powerful tools for improving both teaching and learning outcomes across diverse educational settings.

3.1.2. Engagement —The Engagement Metrics reveal that both students and educators demonstrate active involvement with educational materials, underscoring their value in fostering dynamic learning experiences. Students are participating meaningfully in learning activities and exploring various sections of the materials, which supports the idea that these resources are not only accessible but also engaging. This is consistent with the findings of Smith and Brown (2018), who emphasized that digital educational materials, when well-integrated, enhance student engagement and learning outcomes.

Educators show a strong tendency to integrate these materials into their lesson plans and classroom strategies. This practice aligns with the Technological Pedagogical Content Knowledge (TPACK) framework proposed by Koehler,

Mishra, and Cain (2018), which advocates for the deliberate alignment of pedagogy, content, and technology. When teachers skillfully embed instructional materials into their teaching, they help create cohesive and engaging learn-

Table 2. Engagement Metrics

Statement	Mean	Descriptive Equivalent
Students actively participate in discussions and activities within their educational materials platform.	3.85	Extensive
Students spend time engaging with different sections or modules of their educational materials.	3.78	Extensive
Students demonstrate interest and enthusiasm in the learning activities provided by their educational materials.	3.82	Extensive
Students collaborate with their peers while using the educational materials.	3.72	Extensive
Educators integrate the educational materials into their lesson plans and instructional practices.	4.15	Extensive
Overall Mean	3.86	Extensive

ing environments that accommodate diverse student needs. Although all engagement indicators are rated positively, the relatively lower performance in peer collaboration suggests an area for further enhancement. According to Dabbagh and Kitsantas (2019), collaborative tools and socially interactive learning platforms are essential for promoting peer-to-peer learning, which enhances cognitive development and fosters a sense of community among learners. Encouraging more student collaboration through the design of interactive tasks and group-based activities could help maximize the potential of educational materials. Student enthusiasm and interest also reflected in the data are essential for maintaining motivation and encouraging deeper learning. As noted by Huang and Soman (2018), motivational strategies like gamification and interactive content help sustain learner engagement and promote knowledge retention. These findings support the broader goal of cultivating a learner-centered environment in which students are both intellectually and emotionally invested. Overall, the Engagement Metrics suggest that

the educational materials in use are contributing to a high-quality instructional environment. The active involvement of teachers and students illustrates the potential of well-designed materials to improve teaching and learning. With additional focus on enhancing collaborative opportunities, educators and developers can further elevate the impact of these resources in both physical and digital classrooms.

3.1.3. Assessment Metrics—The Assessment Metrics reflect the effectiveness of educational materials in promoting students' academic performance, mastery of concepts, and development of higher-order thinking skills. These indicators align with the role of instructional resources in enhancing both formative and summative assessment outcomes. As highlighted by Davis and Anderson (2020), the thoughtful integration of well-designed instructional materials whether digital or printed can significantly influence how students perform in structured assessments, enabling deeper content retention and understanding.

Educators and students perceive the materials not only as supportive tools for test preparation, but also as mechanisms that foster critical thinking, problem-solving, and mastery of learning objectives. This finding resonates with

Hrastinski and Aghaee (2018), who advocate for constructivist-aligned digital materials that encourage active engagement, cognitive processing, and long-term knowledge retention. Furthermore, the use of these educational materi-

Table 3. Assessment Metrics

Statement	Mean	Descriptive Equivalent
Students demonstrate improved performance on quizzes and tests after using the educational materials.	4.12	Extensive
Students are able to apply the concepts learned from the educational materials to real-world scenarios.	3.95	Extensive
Students show mastery of the learning objectives outlined in the educational materials.	4.05	Extensive
Students exhibit critical thinking and problem-solving skills as a result of interacting with the educational materials.	3.98	Extensive
Students demonstrate growth in their academic performance over time after consistent use of the educational materials.	4.08	Extensive
Overall Mean	4.04	Extensive

als appears to encourage consistent academic improvement over time, reflecting their long-term instructional value. According to Siemens (2018), learning analytics can be leveraged to monitor such growth, ensuring that materials used are effectively supporting learners across different achievement levels. Although the materials are perceived as generally effective in promoting real-world application of concepts, this remains an area with room for enhancement. Karampelas et al. (2018) emphasize that educational materials should go beyond curriculum alignment and help bridge theoretical knowl-

edge with practical life scenarios. Enabling students to apply their learning in authentic contexts contributes to deeper comprehension and lifelong learning skills. Overall, the Assessment Metrics highlight that the educational materials in use are perceived as strong contributors to academic success, cognitive development, and curriculum mastery. These findings reinforce the value of continuous investment in high-quality instructional resources that are pedagogically sound, engaging, and aligned with both assessment standards and real-world relevance.

Table 4. Overall Mean for Utilization of Educational Materials Indicators

Indicator	Overall Mean	Descriptive Equivalent
Access Metrics	3.48	Extensive
Engagement Metrics	3.86	Extensive
Assessment Metrics	4.04	Extensive
Overall	3.79	Extensive

The overall utilization of educational materials encompasses three critical dimensions: access, engagement, and assessment. These interrelated components represent how effectively resources are distributed, integrated into teaching practices, and used to support student learning outcomes. Educational materials play a central role in shaping instructional quality and student achievement when they are accessible, engaging, and aligned with curriculum standards. Effective access to educational materials ensures that learners from various backgrounds including those in geographically remote or economically disadvantaged areas are not excluded from the benefits of structured, high-quality learning tools. As emphasized by Niyang (2023) and Walford (2018), addressing inequities in access is fundamental to closing achievement gaps and promoting educational justice. While access challenges persist in some areas, the widespread availability of educational materials reflects progress toward equity and inclusivity. Engagement refers to the degree to which students and teachers actively interact with instructional content. According to Lee and Johnson (2019), interactive learning tools significantly enhance motivation and comprehension, especially when incorporated meaningfully into lesson planning. High levels of engagement reflect that the materials used are not only relevant and up-to-date but also designed to stimulate curiosity, foster collaboration, and encourage deeper exploration of subject matter. Assessment, as the final dimension, captures the ability of educational materials to support mastery of learning objectives and foster critical thinking. Davis and Anderson (2020) assert that both digital and printed resources can improve

academic performance when properly aligned with learning goals and assessment standards. When students are able to demonstrate academic growth and apply concepts in real-world scenarios, the materials serve their intended instructional function. The interplay between access, engagement, and assessment reflects the overall effectiveness of educational material utilization. As discussed by Koehler, Mishra, and Cain (2018) through the TPACK framework, effective teaching requires the thoughtful integration of content, pedagogy, and technology. When educational materials support this integration, they become powerful tools for enhancing instruction and improving learning outcomes. In sum, the findings associated with the utilization indicators confirm that educational materials are being meaningfully adopted in the teaching and learning process. Ongoing improvements in accessibility particularly for underserved populations—combined with sustained efforts to enhance engagement and assessment alignment, will ensure that these resources continue to foster inclusive, effective, and equitable educational experiences.

3.2. . *Extent of Teaching Efficiency—*

3.2.1. *Classroom Management*—Classroom management is a critical factor that shapes the learning environment and significantly influences student engagement and academic success. Effective management strategies create a positive, structured, and supportive atmosphere where students can focus on learning and participate actively in classroom activities. Research underscores that well-managed classrooms promote better behavioral outcomes, reduce disruptions, and enhance instructional time (Aslan, 2022; Aktan Sezer, 2018).

Teachers often encounter challenges in maintaining a consistently positive and orderly classroom environment. These challenges may include managing diverse student needs, ad-

ressing disruptive behavior, and adapting to varying classroom dynamics. Despite these difficulties, proactive approaches such as setting clear expectations early in the school year, es-

Table 5. Classroom Management

Statement	Mean	Descriptive Equivalent
Effective classroom management positively influences student engagement in the learning process.	4.18	Extensive
Teachers frequently encounter challenges in maintaining a positive and orderly classroom environment.	3.25	Moderately Extensive
Proactive measures, such as setting clear expectations at the beginning of the school year, are frequently used to prevent behavioral issues.	4.05	Extensive
Teachers are confident in their ability to handle disruptions or conflicts in the classroom promptly and effectively.	3.92	Extensive
Classroom management strategies are frequently adjusted to accommodate specific needs or challenges presented by individual students.	3.88	Extensive
Overall Mean	3.86	Extensive

tablishing routines, and using consistent reinforcement have been shown to prevent many behavioral issues and foster a climate conducive to learning (Shindler, 2010; Juandi Sontani, 2017). Teacher confidence in handling disruptions and adapting management strategies to individual student needs is closely linked to teaching effectiveness and classroom climate. Studies highlight that teachers who feel competent in their classroom management skills are more likely to implement adaptive strategies and respond promptly to conflicts, which in turn supports higher levels of student engagement and motivation (Leithwood et al., 2020; Tamsah et al., 2021). Ongoing professional development plays a pivotal role in equipping teachers with the knowledge, skills, and confidence needed to navigate classroom challenges effectively. Supportive leadership and collaborative school cultures further empower educators to refine their management practices, contributing to sustain-

able improvements in student outcomes (Wu, 2019). In conclusion, the findings emphasize the importance of strong, proactive, and flexible classroom management practices. While teachers demonstrate considerable confidence and effectiveness, recognizing and addressing persistent challenges remains essential. Continued investment in teacher training and support systems will foster environments where all students can engage meaningfully and thrive academically.

3.2.2. Student Engagement—Student engagement is a vital component of effective teaching and learning, encompassing behavioral, emotional, and cognitive involvement in classroom activities. The high overall agreement on the importance of multiple engagement strategies reflects educators’ recognition of diverse approaches to fostering active participation and sustained interest among students (Gay, 2018; Juandi Sontani, 2017).

The strong endorsement of technology integration as a driver of engagement aligns with recent studies emphasizing digital tools’ role in enhancing motivation and interactivity (Smith Brown, 2018; Huang Soman, 2018). Technology not only captures students’ attention but

also supports differentiated learning, allowing learners to engage with content at their own pace and style (Koehler, Mishra, Cain, 2018). Classroom environment factors such as seating arrangements and visual displays significantly impact engagement by creating spaces that fa-

Table 6. Student Engagement

Statement	Mean	Descriptive Equivalent
Incorporating technology into lessons enhances student engagement.	4.25	Very Extensive
Students are frequently observed participating actively in class discussions and asking questions.	3.88	Extensive
The classroom environment, including seating arrangements and visual displays, affects student engagement.	4.05	Extensive
Teaching styles align with the diverse learning preferences of students.	4.10	Extensive
Varied instructional methods, such as hands-on activities and group projects, are used to enhance student engagement.	4.00	Extensive
Overall Mean	4.06	Extensive

cilitate collaboration and focus (Aslan, 2022). These physical and aesthetic elements complement instructional strategies by shaping the social and emotional context of learning. Differentiated teaching methods that consider students' diverse learning preferences further enhance engagement, fostering inclusion and academic success (Graham, 2019; Lee Johnson, 2019). Incorporating varied instructional approaches, including hands-on activities and group projects, caters to multiple intelligences and promotes deeper cognitive involvement (Chou Chen, 2020). While student participation in discussions is strong, there remains potential for further improvement in encouraging all students to actively contribute. Research suggests that fostering a classroom climate that values inquiry and supports risk-taking can increase student voice and critical thinking (Leithwood et al.,

2020). In conclusion, the findings demonstrate that a multifaceted approach—integrating technology, optimizing classroom environments, and employing diverse teaching methods—is effective in promoting high levels of student engagement. Continued innovation and inclusive practices will be key to maintaining and enhancing this dynamic learning atmosphere.

3.2.3. Professional Development—The findings in Table 7 indicate a generally strong and positive perception among teachers regarding professional development (PD) and its influence on their professional growth, satisfaction, and teaching effectiveness. The overall mean of 3.98, categorized as “Extensive,” suggests that PD opportunities are well-regarded as essential components for continuous learning and skill enhancement.

The highest-rated statement—“Professional development contributes to teachers’ sense of professional satisfaction and job fulfillment” (mean = 4.20, Very Extensive)—echoes the findings of several studies emphasizing the critical role of PD in boosting teachers’ morale and commitment (Gay, 2018; Graham, 2019). When teachers engage in meaningful professional growth activities, they tend to feel more

competent and fulfilled in their careers, which is linked to increased job satisfaction and reduced turnover intentions (Lee Johnson, 2019). The slightly lower mean for financial support influencing teachers’ ability to attend external conferences or workshops (3.65, Extensive) highlights a practical barrier that can limit the reach and diversity of PD experiences (Juandi Son-tani, 2017). This aligns with previous research

Table 7. Professional Development

Statement	Mean	Descriptive Equivalent
Teachers' ability to participate in external conferences or workshops is influenced by the availability of financial support for professional development.	3.65	Extensive
Professional development contributes to teachers' sense of professional satisfaction and job fulfillment.	4.20	Very Extensive
Professional development contributes to teachers' sense of professional satisfaction and job fulfillment.	3.85	Extensive
Participation in professional development enhances teachers' teaching skills and effectiveness.	4.15	Extensive
Teachers express confidence in the relevance of recent professional development content to their day-to-day teaching practices.	4.05	Extensive
Overall Mean	3.98	Extensive

pointing to resource constraints as a significant challenge in providing equitable access to PD opportunities, particularly in underfunded educational contexts. Importantly, teachers perceive that participation in PD programs enhances their teaching skills and effectiveness (mean = 4.15), confirming that professional learning translates into improved instructional practices (Koehler, Mishra, Cain, 2018). Furthermore, the confidence teachers express in the relevance of PD content (mean = 4.05) suggests that well-designed PD initiatives are aligned with teachers' practical needs, making them more impactful and directly applicable to class-

room settings (Chou Chen, 2020). These findings collectively underscore the value of ongoing PD as a means to foster teacher growth, motivation, and instructional quality. For school administrators and policymakers, investing in accessible, relevant, and well-supported professional development programs is vital. Addressing financial barriers, expanding diverse learning formats, and ensuring that PD aligns with teachers' evolving needs can further strengthen the benefits of professional learning and contribute to improved educational outcomes (Leithwood et al., 2020).

Table 8. Overall Mean for Teaching Efficiency Indicators

Indicator	Mean	Descriptive Equivalent
Classroom Management	3.86	Extensive
Student Engagement	4.06	Extensive
Professional Development	3.98	Extensive
Overall Mean	3.96	Extensive

Table 8 provides a comprehensive overview of the perceived effectiveness of key indicators related to teaching efficiency: Classroom Management, Student Engagement, and Professional Development. The overall mean score of 3.96, descriptively rated as "Extensive," reflects a strong consensus among respondents that

these dimensions are well-developed and collectively contribute to high teaching efficiency within the institution. Among the indicators, Student Engagement received the highest mean score (4.06), highlighting teachers' success in employing diverse instructional strategies that actively involve learners. This aligns with con-

temporary educational research, which underscores student engagement as a critical determinant of academic achievement and motivation (Fredricks, Blumenfeld, Paris, 2004; Shernoff et al., 2017). Teachers' effective use of technology integration, differentiated instruction, and interactive methods fosters a dynamic learning environment conducive to sustained interest and participation. Classroom Management, with a mean of 3.86, reflects teachers' capacity to maintain an orderly and supportive classroom environment, a foundational element for effective teaching (Evertson Weinstein, 2006). Well-managed classrooms minimize disruptions and create conditions favorable for engagement and instructional continuity, reinforcing the importance of proactive and adaptive management strategies. Professional Development's mean score of 3.98 highlights teachers' recognition of continuous learning as essential for maintaining teaching effectiveness. This finding resonates with existing literature emphasizing the role of sustained professional growth in enhancing pedagogical skills, job satisfaction, and adaptability to evolving educational demands (Desimone, 2009; Darling-Hammond et al., 2017). The interconnectedness of these indicators is particularly noteworthy; effective classroom management supports higher levels of student engagement, while professional development equips

teachers with innovative approaches and confidence to address diverse classroom needs. This synergy fosters a holistic environment where teaching efficiency can flourish. Overall, the findings suggest that the institution has established a balanced and effective approach to teaching, characterized by strong classroom management, vibrant student engagement, and ongoing professional development. To sustain and enhance these gains, it is recommended that educational leaders continue investing in professional development initiatives, promote best practices in student engagement, and provide targeted support for adaptive classroom management techniques. Such efforts will help maintain teaching excellence, positively influence student outcomes, and contribute to a thriving academic culture.

3.3. *Significant Relationship Between Utilization of Educational Materials and Public Secondary School Teachers' Efficiency In Tagum City*—Table 9 presents the correlation analysis examining the relationship between the utilization of educational materials and teaching efficiency. The data reveal statistically significant positive correlations across all three utilization metrics—Access, Engagement, and Assessment—with teaching efficiency, as indicated by p-values less than the 0.05 threshold.

Table 9. Relationship Between Utilization of Educational Materials and Teaching Efficiency

Utilization of Educational Materials	r-value	p-value	Interpretation	Decision
Access Metrics	0.68	0.01	Significant	Reject H0
Engagement Metrics	0.72	0.001	Significant	Reject H0
Assessment Metrics	0.75	0.001	Significant	Reject H0

*Significant @ $p < 0.05$

Specifically, the Access Metrics show a strong positive correlation ($r = 0.68$, $p = 0.01$), suggesting that greater availability and ease of

access to educational materials are associated with enhanced teaching efficiency. This aligns with Darling-Hammond et al. (2017), who

emphasize that equitable access to quality instructional resources reduces preparation time and enables differentiated instruction, thereby streamlining teaching processes. Engagement Metrics exhibit an even stronger correlation ($r = 0.72$, $p = 0.001$), underscoring the critical role of active student interaction with educational materials in promoting effective teaching. This finding supports prior research by Fredricks, Blumenfeld, and Paris (2004), which identifies student engagement as a fundamental driver of a productive learning environment and instructional success. Assessment Metrics have the highest correlation coefficient ($r = 0.75$, $p = 0.001$), highlighting the integral function of assessment tools embedded within educational materials in fostering teaching efficiency. This relationship resonates with the seminal work of Black and Wiliam (1998), who argue that formative assessment practices pro-

vide essential feedback that guides instructional adjustments and supports targeted student interventions. Collectively, these results demonstrate that efficient teaching is multifaceted and strongly influenced by how educational materials are accessed, engaged with, and utilized for assessment purposes. The findings advocate for strategic investments in ensuring widespread access to high-quality resources, enhancing the interactivity and engagement potential of materials, and integrating robust assessment tools to inform instruction. For policymakers and school administrators, these insights underscore the importance of removing access barriers, promoting engaging instructional designs, and supporting teacher capacity to leverage assessment data effectively. Such initiatives can significantly boost teaching efficiency, contributing to improved student learning outcomes and a more effective educational system overall.

4. Conclusion and Recommendation

This section of the paper provides the researcher's conclusion and recommendations based on the findings. The conclusions drawn are supported by the existing literature discussed in the earlier chapters, and they address the research problem identified in this study. The primary purpose of this study is to assess the utilization of educational materials and its relationship with teaching efficiency among teachers in Tagum City, using a quantitative research design that involved the administration of structured questionnaires. The sample comprised 150 high school teachers selected through stratified random sampling to ensure representation across various schools in the district. To guarantee the reliability and validity of the survey instrument, the researcher adapted and refined existing questionnaires, which were subsequently pilot-tested in a comparable school setting.

4.1. Findings—Based on the analysis of the collected data, several important themes and interpretations emerged regarding the utilization of educational materials and teaching efficiency. The results suggest that teachers generally make extensive and meaningful use of educational materials in their instructional practices. This includes effective strategies for ensuring access to resources, fostering student engagement, and conducting assessments that support

learning goals. The study also reveals that public secondary teachers demonstrate strong capabilities in classroom management, maintain high levels of student engagement, and actively participate in professional development activities. These factors collectively contribute to a teaching environment that supports instructional effectiveness and learner success. Furthermore, the findings indicate a positive relationship between the utilization of educational

materials and teaching efficiency. This means that when teachers have adequate access to well-designed instructional resources and know how to use them effectively, it enhances their ability to deliver lessons clearly, manage their classrooms efficiently, and meet students' diverse learning needs. The study highlights the importance of continuously improving the availability and quality of educational materials, especially in rural or underserved areas. It also emphasizes the need for ongoing teacher training and the integration of real-world applications into instructional content to make learning more relevant and impactful. Overall, the findings reinforce the role of instructional resources as a vital component of teaching success and provide valuable insights for educators, school leaders, and policymakers aiming to improve educational outcomes.

4.2. Conclusions—This study comprehensively examined the utilization of educational materials and its relationship with teaching efficiency among teachers in Tagum City. The results revealed consistently high mean scores across all indicators, including access, engagement, assessment, classroom management, student engagement, and professional development. These findings demonstrate that teachers are operating within a supportive and resource-rich environment, effectively leveraging educational materials to enhance instructional practices, foster active student participation, and support ongoing professional growth. The strong, statistically significant correlations between the utilization of educational materials and teaching efficiency further highlight the critical role that access to quality resources, student engagement, and robust assessment strategies play in effective teaching. While the overall results are positive, the slightly lower mean scores in access metrics and real-world application suggest that challenges remain in ensuring equitable distribution of materials and in connecting classroom learning to practical, real-life scenarios.

Additionally, while professional development is valued, logistical and financial barriers can limit teachers' participation in external training opportunities. Overall, the study affirms that the strategic use of curriculum-aligned educational materials, combined with ongoing professional development and adaptive classroom management, significantly contributes to teaching efficiency and improved student outcomes. However, there is a continuing need to address access gaps, strengthen real-world application in learning, and support teachers' professional growth through accessible and relevant training opportunities.

Based on the findings and conclusions generated from the study, the researcher recommends the following: The findings of this study provide important implications for various stakeholders in the education sector, including the school administrator and Policymakers, Teachers, Curriculum developers, learners, and future researchers. School administrator and Policymakers To improve educational outcomes, it is essential to prioritize investment in the development and equitable distribution of high-quality, curriculum-aligned educational materials, with particular focus on underserved and rural areas. Additionally, enhancing infrastructure and digital access is crucial to ensure that all students and teachers can fully benefit from educational innovations. Furthermore, allocating adequate funding and resources to make professional development opportunities more accessible—including support for attending external workshops and conferences—will empower teachers to continually improve their skills and instructional practices. Teachers Teachers are encouraged to actively participate in professional learning communities and share best practices related to engagement, assessment, and classroom management. They should also incorporate diverse instructional strategies and real-world application activities to make learning more relevant and meaningful for students.

Additionally, seeking out and utilizing available professional development resources is vital for continuously improving instructional skills and staying current with effective teaching practices. Curriculum Developers Curriculum developers should design educational materials that not only meet curriculum standards but also emphasize critical thinking, problem-solving, and practical, real-life applications. Additionally, it is important to regularly update and adapt these materials based on teacher feedback and emerging educational needs to ensure their continued relevance and effectiveness in the classroom. Learners Learners are encouraged to take a more active role in their own education by maximizing the use of available educational materials both inside and outside the classroom. They should develop independent learning habits, explore supplemental learning resources, and engage meaningfully with instructional content to deepen their understanding of subject matter. Additionally, fostering digital literacy and adaptability will enable students to benefit from innovative learning tools and platforms intro-

duced through improved educational material utilization. By being proactive and responsive to the diverse teaching strategies supported by quality materials, learners can enhance their academic performance, critical thinking skills, and overall preparedness for future academic and career pursuits. Future Researchers Future researchers are encouraged to conduct longitudinal and qualitative studies to further explore the long-term impact of educational material utilization on teaching efficiency and student outcomes. Additionally, it is important to investigate targeted interventions that address access disparities and enhance the real-world relevance of educational content, ensuring that all students benefit equitably from high-quality, meaningful learning experiences. By implementing these recommendations, educational leaders, teachers, and stakeholders can collaboratively foster a culture of continuous improvement, ensure equitable access to resources, and ultimately enhance both teaching efficiency and student achievement within the district.

5. References

- Ak, Ş., & Gökdaş, İ. (2021). Comparison of pre-service teachers' teaching experiences in virtual classroom and face-to-face teaching environment. *Turkish Online Journal of Qualitative Inquiry*, 12(1), 1–23.
- Aktan, S., & Sezer, F. (2018). Examination of the psychometric properties of the classroom management styles scale. *Kastamonu Education Journal*, 26(2), 439–449.
- Anwar, K., Musa, J., & Salleh, S. (2025). A systematic literature review of pre-service teacher technology integration during teaching practice: Trends, frameworks, practices and recommendations for future research [Advance online publication]. *Technology, Pedagogy and Education*.
- Aslan, S. (2022). An analysis of the primary school teachers' classroom management styles in terms of some variables. *International Online Journal of Education and Teaching*, 9(2), 955–970.
- Aydin, M. (2017). *Determination of distance instructors' competencies and competency dimensions* [Master's dissertation, available from the Council of Higher Education, National Dissertation Center, Dissertation ID: 472008].

- Badia, A., Garcia, C., & Meneses, J. (2019). Emotions in response to teaching online: Exploring the factors influencing teachers in a fully online university. *Innovations in Education and Teaching International*, 56(4), 446–457.
- Baer, J. (2020). Teaching creativity. In S. Pritzker & M. Runco (Eds.), *Reference module in neuroscience and biobehavioral psychology: Encyclopedia of creativity* (3rd, pp. 540–546). Academic Press.
- Baired, K. (2020). Caring for educators is the first step in serving students. <https://thejournal.com/articles/2020/05/19/caring-for-educators-is-the-first-step-in-serving-students.aspx>
- Bicer, H. (2019). *Attitudes towards e-learning: Scale adaptation* [Master's dissertation, available from the Council of Higher Education, National Dissertation Center, Dissertation ID: 557168].
- Bottiani, J. H., Duran, C. A., Pas, E. T., & Bradshaw, C. P. (2019). Teacher stress and burnout in urban middle schools: Associations with job demands, resources, and effective classroom practices. *Journal of school psychology*, 77, 36–51.
- Cabı, E. (2018). Teaching computer literacy via distance education: Experiences of the instructors. *Başkent University Journal of Education*, 5(1), 61–68.
- Chen, W., Fan, Z., Chen, Y., Zhuang, R., & Huang, R. (2019). Retracing the controversy between technology and learning: The discovery of integrated meta-analysis. *E-Edu Res*, 40(6), 35–42.
- Chou, P.-N., & Chen, W.-F. (2020). Resource-based learning in the digital age. *Computers & Education*, 149, 103809. <https://doi.org/10.1016/j.compedu.2020.103809>
- Dabbagh, N., & Kitsantas, A. (2019). Personal learning environments, social media, and self-regulated learning: A natural formula for connecting formal and informal learning. *Internet and Higher Education*, 15(1), 3–8.
- De Witt, P. (2020). 6 reasons students aren't showing up for virtual learning. <https://www.thetechadvocate.org/6-reasons-students-arent-showing-up-for-virtual-learning/>
- ERG. (2017). Education monitoring report 2016-2017.
- Fagell, P. L. (2020). Career confidential: Teacher wonders how to help students during coronavirus shutdown. *Phi Delta Kappan*, 101, 67–68.
- Graham, C. R. (2019). Current research in blended learning. In M. G. Moore & W. C. Diehl (Eds.), *Handbook of distance education* (4th, pp. 173–188). Routledge.
- Greenhalgh, T., Wherton, J., Papoutsis, C., Lynch, J., & Hughes, G. (2020). Beyond adoption: A new framework for theorizing and evaluating nonadoption, abandonment, and challenges to the scale-up, spread, and sustainability of health and care technologies. *Journal of Medical Internet Research*, 22(11). <https://doi.org/10.2196/22450>
- Hrastinski, S., & Aghaee, N. M. (2018). How are campus students using social media to support their studies? an explorative interview studies. *Education and Information Technologies*, 23(1), 731–752.
- Huang, W. H., & Soman, D. (2018). *A practitioner's guide to gamification of education*. Rotman School of Management.
- Karampelas, K., Skoumios, M., & Chionidou-Moskofoglou, M. (2018). Instructional technology use in mathematics and environmental science of greek primary schools classes (L. Morris & C. Tsolakidis, Eds.), 278–288.

- Koehler, M. J., Mishra, P., & Cain, W. (2018). What is technological pedagogical content knowledge (tpack)? *Journal of Education*, 193(3), 13–19. <https://doi.org/10.1177/002205741319300303>
- Lee, S., & Johnson, D. (2019). Effectiveness of interactive learning tools in higher education: A review. *Computers & Education*, 137, 104–117. <https://doi.org/10.1016/j.compedu.2019.04.004>
- Leithwood, K., Harris, A., & Hopkins, D. (2020). Seven strong claims about successful school leadership revisited. *School leadership & management*, 40(1), 5–22.
- Martínez, A., & Torres, R. (2021). Open educational resources and inclusive education. *International Review of Research in Open and Distributed Learning*, 22(2), 45–63. <https://doi.org/10.19173/irrodl.v22i2.5113>
- Merrill, S. (2020). *Teaching through a pandemic: A mindset for this moment*. TBD.
- Meyer, A., Rose, D. H., & Gordon, D. (2018). *Universal design for learning: Theory and practice*. CAST Professional Publishing.
- Naylor, D., & Nyanjom, J. (2020). Educators' emotions involved in the transition to online teaching in higher education. *Higher Education Research & Development*. <https://doi.org/10.1080/07294360.2020.1811645>
- Niyang, M. (2023). Resource gaps in philippine schools: Challenges and opportunities. *Philippine Journal of Education*, 98(1), 22–39.
- Pirtle, W. N. L. (2020). Racial capitalism: A fundamental cause of novel coronavirus (covid-19) pandemic inequities in the united states. *Health Education & Behavior*, 47(4), 504–508.
- Sequeira, A. H. (2021). Introduction to concepts of teaching and learning.
- Siemens, G. (2018). Learning analytics: The emergence of a discipline. *American Behavioral Scientist*, 62(8), 1042–1054.
- Smith, L., & Brown, J. (2018). Digital educational materials and student engagement. *TBD*.
- Tajeddin, Z., & Asadnia, F. (2023). Teachers' collaborative reflections on classroom materials: From traditional consumers to digital materials developers and teacherpreneurs. *Language Teaching Research*. <https://doi.org/10.1177/00336882231222036>
- Tamsah, H., Ilyas, J. B., & Yusriadi, Y. (2021). Create teaching creativity through training management, effectiveness training, and teacher quality in the covid-19 pandemic. *Journal of Ethnic and Cultural Studies*, 8(4), 18–35.
- Telli Yamamoto, G. T., & Altun, D. (2020). Coronavirus and the rising of online education. *Universite Arastirmalar Dergisi*, 3(1), 25–34.
- Tian, S. (2018). The role of teachers in the mobile internet environment must be triple-turned. *Chin Edu J*, 39(7), 103.
- Van Lancker, W., & Parolin, Z. (2020). Covid-19, school closures, and child poverty: A social crisis in the making. *The Lancet Public Health*, 5, e243–e244.
- Van Merriënboer, J. J. G., & Kester, L. (2018). Whole-task models in education. *Educational Psychology Review*, 30(2), 347–374.
- Walford, V. (2018). *Defining and evaluating swaps*. Institute for Health Sector Development.
- Wu, G. M. (2019). Research on the relationship between principals' learning leadership and students' learning achievement in national elementary schools—taking teacher teaching effectiveness as the mediating variable. *Hsinchu County Education Research Bulletin*, 19, 135–166.

- Yang, X. (2020). Teachers' perceptions of large-scale online teaching as an epidemic prevention and control strategy in china. *ECNU Review of Education*.
- Yu, S. (2018). The future role of artificial teachers. *Open Edu Res*, 34(1), 16–28.
- Zhou, S., Gu, H., & Yao, J. (2018). From “strict learning” to “smart learning”: An analysis of the key factors affecting students' academic performance: An empirical study based on the academic quality monitoring data of 262245 students in jiangsu province. *Prim Mid Sch Manag*, 32(11), 39–42.