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Teaching and Learning in Remote Schools: Addressing Resource Constraints in Indanan District

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Index Terms:

resource gap, challenges in education, remote schools, learning gap, teacher support

Abstract. This particular study examined the overall extent of resource constraints and carefully analyzed their distinct effects on instructional practices and student learning experiences within selected remote public schools located in Indanan District, Sulu. Adopting a descriptive research design approach, empirical data were gathered from a sample of 150 public elementary school teachers using a validated survey questionnaire, which were subsequently analyzed using statistical mean and standard deviation metrics. The primary findings outlined in this study revealed that resource constraints across instructional materials, facilities, school infrastructure, technology, digital resources, financial support, and personnel human resources were generally experienced at a moderate level, with human resources emerging clearly as the most critical concern among educators. Furthermore, the empirical results indicated that these ongoing resource constraints exert a moderately strong effect on daily instructional practices, specifically impacting lesson planning efficiency, teaching strategies, classroom management protocols, and educational assessment methods. In addition, resource limitations were shown to possess a moderate impact on students' academic performance, general motivation, classroom engagement, and equitable access to quality learning opportunities. Despite facing these significant structural challenges, the surveyed respondents expressed a strong consensus on the critical importance of implementing proposed interventions. These interventions particularly target improving essential instructional materials, strengthening professional development for teachers, upgrading school facilities, enhancing technological support systems, increasing overall financial resources, and actively fostering collaborative stakeholder partnerships. Ultimately, the study underscores an urgent need for comprehensive, sustained educational interventions designed to systematically address existing resource gaps and significantly improve the quality of daily teaching and learning experiences within these resource-constrained environments.

Introduction

Education serves as the cornerstone of individual growth and societal advancement, equipping learners with the knowledge, skills, and values necessary for meaningful participation in society. The effectiveness of education, however, is not solely dependent on teachers and students but is significantly influenced by the availability of essential educational resources such as instructional materials, adequate facilities, technology, financial support, and qualified teachers. When these resources are sufficient, they enable the use of innovative and learner-centered pedagogical approaches that enhance engagement and improve academic outcomes. Conversely, limited access to such resources may restrict instructional quality and learning opportunities. As noted by Adedeji and Olaniyan (2011), inadequate instructional resources constrain teachers' ability to employ diverse teaching strategies, often resulting in more traditional and less interactive forms of instruction.

In the Philippine context, data from the Department of Education (DepEd) highlight persistent disparities in educational resources across regions. For instance, DepEd reports indicate that some schools, particularly in geographically isolated and disadvantaged areas (GIDAs), experience higher student–teacher ratios, in some cases exceeding the national target of 1:35 at the elementary level. Additionally, regional data from the DepEd Region IX and the Bangsamoro education system show variations in enrollment rates, classroom shortages, and access to learning materials, which may influence instructional delivery. National Achievement Test (NAT) results in recent years have also reflected challenges in learning outcomes, with mean percentage scores in several regions falling below the desired mastery level of 75%, suggesting the need to further strengthen teaching and learning conditions. While these data do not exclusively represent Indanan District, they provide a broader context within which remote schools in Sulu may be situated.

Within this context, schools in areas such as Indanan District operate under conditions that may present unique challenges and opportunities for teaching and learning. Teachers in similar remote settings often adapt to limitations in textbooks, visual aids, laboratory equipment, and digital resources, while also managing constraints related to infrastructure and classroom environments. As Barasa and Tsisiga (2014) emphasize, the availability of adequate learning materials plays a crucial role in fostering students' cognitive development and problem-solving abilities. Variations in resource availability may therefore influence student motivation, participation, and overall academic performance.

Given these considerations, this study aims to examine the impact of resource availability on instructional practices and students' learning experiences in selected remote schools of Indanan District. Specifically, it seeks to identify the challenges teachers encounter, the strategies they employ in resource-constrained environments, and the implications for student engagement and achievement. The findings are expected to provide evidence-based insights for policymakers, educational leaders, and stakeholders in developing responsive interventions that promote equitable access to quality education. Furthermore, this study supports the goals of United Nations under Sustainable Development Goal 4, which advocates inclusive and equitable quality education for all. By situating the study within both local and national educational contexts, it underscores the importance of informed and data-driven approaches to improving learning conditions in underserved communities.

Research Questions:

This study sought to answer the following questions:

1. How do teachers in remote schools of Indanan District perceive resource constraints in terms of instructional materials, facilities and infrastructure, technology and digital resources, financial support, and human resources?

2. To what extent do resource constraints affect teachers' instructional practices regarding lesson planning and preparation, teaching strategies and methodologies, and classroom management and assessment?

3. To what extent do resource constraints impact students' learning experiences regarding academic performance, motivation and engagement, and access to quality learning opportunities?

4. How may specific interventions and policy proposed to mitigate the effects of resource constraints on teaching and learning in the remote schools of Indanan District?

Null Hypotheses

1. There is no significant effect of resource constraints in terms of instructional materials, facilities and infrastructure, technology and digital resources, financial support, and human resources on the teaching and learning process in the remote schools of Indanan District.

2. Resource constraints do not significantly affect teachers' instructional practices in terms of lesson planning and preparation, teaching strategies and methodologies, and classroom management and assessment in the remote schools of Indanan District.

3. Resource constraints do not significantly affect students' learning experiences in terms of academic performance, motivation and engagement, and access to quality learning opportunities in the remote schools of Indanan District.

Theoretical and Conceptual Framework

This study integrates Resource Dependency Theory, Constructivist Learning Theory, and Maslow's Hierarchy of Needs to examine how resource availability shapes remote education in the Indanan District. Resource Dependency Theory establishes how external structural constraints compel schools and teachers to alter instructional strategies based on resource scarcity. Furthermore, Constructivist Learning Theory emphasizes learner-centered instruction, which becomes heavily restricted when essential learning materials are missing. Finally, Maslow's framework adds a critical motivational aspect, showing how unmet fundamental needs diminish academic and professional engagement. Together, this synthesized framework evaluates the deep interconnectedness of institutional limitations, instructional adjustments, and human motivations.

Methodology

Research Design

This study utilized a *descriptive research design* to examine the effects of resource constraints on teaching practices in the remote schools of Indanan District. Descriptive research focuses on systematically describing existing conditions as they naturally occur without manipulating variables; as explained by John W. Creswell, it aims to provide an accurate portrayal of characteristics within a population or situation. In this study, the design was used to identify the limitations teachers face in terms of instructional materials, facilities and infrastructure, technology and digital resources, financial support, and human resources, as well as to describe their teaching practices in areas such as lesson planning, teaching strategies, classroom management, and assessment. Quantitative data were collected through a structured survey administered to teachers, and descriptive statistics such as frequency, mean, and standard deviation were used to summarize and present the data.

Research Environment

This study was conducted in selected elementary schools in Indanan District, Sulu, located in Southwestern Mindanao, Philippines. Indanan District is administratively divided into North Indanan District and South Indanan District, which oversee several public elementary schools situated in rural and geographically isolated communities. Many of these schools are in remote barangays where access to educational resources, transportation, and basic infrastructure is limited. Due to their distance from the town center and limited government support, schools in these areas often experience shortages of instructional materials, inadequate classroom facilities, limited technological resources, and insufficient financial and human support. These conditions make the district an appropriate setting for examining the impact of resource constraints on teaching practices. Conducting the study in this locale will provide a clearer understanding of the challenges faced by teachers in both North and South Indanan Districts and will offer valuable insights that may help local education authorities and policymakers develop strategies to improve teaching and learning conditions in remote and underserved schools.

Respondents

The respondents of the study consisted of *public elementary school teachers* from selected remote schools under North Indanan District and South Indanan District. All classroom teachers assigned in these selected schools served as the primary respondents because they were directly involved in classroom instruction and were most likely to experience the effects of limited resources. Only full-time teachers with at least six months of teaching experience in the school were included to ensure that they had sufficient exposure to the school's available resources and instructional conditions. Meanwhile, substitute teachers, newly hired teachers with less than six months of service, and non-teaching personnel were excluded from the study. This selection process ensured that the data gathered accurately represented the experiences and challenges faced by teachers working in resource-constrained schools within the Indanan District.

Indanan District	Number of Respondents
Public School Elementary Teachers	150

Table 1. Number of Respondents

Sampling Procedure

This study employed a purposive sampling design to identify the participants, consisting of 150 public elementary school teachers from selected remote schools in Indanan District, Sulu, located in Southwestern Mindanao, Philippines. Purposive

sampling was used because the study specifically targeted teachers who were directly experiencing resource constraints in their respective schools. The selected schools were drawn from both North Indanan District and South Indanan District, which supervise several elementary schools situated in rural barangays. Many of these schools experience limitations in instructional materials, facilities and infrastructure, technology and digital resources, financial support, and human resources. These conditions made the selected respondents appropriate for examining how resource constraints affect teaching practices and the overall teaching–learning process.

Research Instrument

This study employed a self-made survey questionnaire as the main research instrument to collect quantitative data on the types of resource constraints experienced by teachers and their impact on instructional practices and students' learning in the remote schools of Indanan District. The questionnaire consisted of five parts: respondents' demographic information; the extent of resource constraints in instructional materials, facilities and infrastructure, technology and digital resources, financial support, and human resources; the effects of these constraints on lesson planning, teaching strategies, classroom management, and assessment; the impact on students' academic performance, motivation, and access to quality learning opportunities; and teachers' perceptions of possible interventions and policy recommendations. Responses were recorded using a four-point Likert scale. Prior to validation, the instrument was reviewed and guided by the research adviser, and it was subsequently validated by the chairman, critic, and panel members who are *experts in the field of education, holding advanced and with extensive experience in research and instrument development*. It was then pilot tested among 40 respondents to establish reliability using Cronbach's Alpha, and necessary revisions were made prior to the final administration of the questionnaire.

Data Gathering Procedure

Gathering of data, formal permission was sought from the principals of the selected remote schools in Indanan District to conduct the survey. Once approved, coordination with the principals will be made to schedule questionnaire distribution to the teacher-respondents. The study's purpose, along with assurances of confidentiality and voluntary participation, were explained to all participants. The researcher was personally distributed the validated questionnaires, allowing respondents adequate time to complete them honestly. Upon collection, the completed questionnaires were checked, encoded, and the data organized, tabulated, and analyzed using appropriate statistical tools. All information were treated with strict confidentiality and used exclusively for academic and research purposes.

Statistical Treatment

The data gathered from the validated survey questionnaire were analyzed using descriptive statistics with the aid of SPSS software. Percentage was used to describe the demographic profile of the respondents, while weighted mean was utilized to determine the extent of resource constraints, instructional practices, students' learning experiences, and perceived interventions. Standard deviation was employed to measure the variability of responses. All data were systematically organized, analyzed, and interpreted in relation to the objectives of the study.

Results and Discussion

Problem 1: Resource Constraints

Resource constraints refer to instructional materials, facilities and infrastructure, technology and digital resources, financial support and human resources. Table 2.1, Table 2.2, Table 2.3, Table 2.4, and Table 2.5 portray the result of analysis.

Instructional Materials	N	Mean	Std. Deviation	Descriptive Interpretation
1. Visual aids such as posters, charts, flashcards, maps, and pictures in the classroom.	150	3.24	.672	Moderate Constraint
2. Supplementary readers, workbooks, modules, and activity sheets beyond the main textbook.	150	3.20	.635	Moderate Constraint
3. Printed assessment tools, including tests, quizzes, worksheets, and rubrics.	150	3.13	.648	Moderate Constraint

4. Official teacher's guides, reference books, and instructional manuals.	150	3.13	.648	Moderate Constraint
5. Textbooks for all learners in core subjects (English, Math, Science, Filipino, Araling Panlipunan).	150	3.11	.604	Moderate Constraint
6. Materials for arts and practical subjects, including paper, paints, scissors, musical instruments, and sewing kits.	150	3.09	.679	Moderate Constraint
7. Library resources such as storybooks, dictionaries, encyclopedias, and periodicals.	150	2.99	.613	Moderate Constraint
8. Teaching manipulatives, including math counters, abacus, measuring tools, and science kits.	150	2.93	.696	Moderate Constraint
9. Locally developed instructional modules or learning packets for self-paced learning.	150	2.90	.968	Moderate Constraint
10. Laboratory equipment and materials for science demonstrations or experiments.	150	2.75	.843	Moderate Constraint
Total	150	3.05		**Moderate Constraint**

Table 2.1 Mean and Descriptive Interpretation of Resource Constraint-Instructional Materials

Based on Table 2.1, schools face a moderate level of resource constraints in instructional materials, with an overall mean of 3.05. While resources exist, deficiencies in quantity, quality, or availability hinder effective lesson delivery. Visual aids (M = 3.24) and supplementary learning materials (M = 3.20) scored the highest means, revealing that even basic tools are in short supply. This deficit forces teachers to use improvised or personal resources. Lower means in teaching manipulatives and laboratory equipment—particularly science materials (M = 2.75)—further restrict hands-on learning, showing that widespread material limitations directly compromise teaching quality and student experiences.

Facilities and Infrastructure	N	Mean	Std. Deviation	Descriptive Interpretation
1. School building safety, including durability, stability, and protection from hazards.	150	3.38	.672	Moderate Constraint
2. Sanitary facilities, including toilets, washrooms, and handwashing stations.	150	3.29	.649	Moderate Constraint
3. Sufficient furniture such as desks, chairs, and teacher's tables.	150	3.29	.649	Moderate Constraint
4. Adequate classroom spaces, including sufficient size, proper lighting, and ventilation.	150	3.22	.612	Moderate Constraint
5. A teachers' lounge or faculty room.	150	3.21	.877	Moderate Constraint
6. Playground or sports facilities, including fields, courts, and equipment.	150	3.13	.780	Moderate Constraint
7. A canteen or feeding area.	150	3.09	.785	Moderate Constraint
8. Utilities, including reliable water supply and electricity.	150	3.06	.716	Moderate Constraint
9. A library or learning resource center accessible to students.	150	2.99	.695	Moderate Constraint
10. Laboratory rooms for science, computer, and TLE subjects.	150	2.85	.915	Moderate Constraint
Total	150	3.15		**Moderate Constraint**

Table 2.2. Mean and Descriptive Interpretation of Resource Constraint-Facilities and Infrastructure

Remote schools in Indanan District face moderate facility and infrastructure resource constraints, indicated by an overall mean score of 3.15. While resources exist, they inadequately support an optimal learning environment, necessitating immediate quality and accessibility improvements. Among the indicators, school building safety scored the highest mean at 3.38, closely followed by sanitary facilities and sufficient furniture at 3.29, highlighting critical physical condition concerns. Conversely, specialized learning spaces like library access and laboratory rooms recorded lower means of 2.99

and 2.85, respectively. Ultimately, these consistent constraints potentially threaten crucial teacher effectiveness and overall student learning experiences across this remote educational district.

Technology and Digital Resources	N	Mean	Std. Deviation	Descriptive Interpretation
1. Desktop computers or laptops for teachers.	150	3.11	.901	Moderate Constraint
2. Computer laboratories for student use.	150	3.11	.901	Moderate Constraint
3. Audio-visual equipment, including speakers, microphones, and DVD players.	150	3.09	.944	Moderate Constraint
4. Charging stations or power banks for devices.	150	3.06	.876	Moderate Constraint
5. Printers and photocopiers for instructional and administrative purposes.	150	3.03	.867	Moderate Constraint
6. Projectors or smart TVs for instructional use.	150	2.81	1.006	Moderate Constraint
7. Radio or TV-based learning tools.	150	2.75	.978	Moderate Constraint
8. Reliable internet connectivity, including Wi-Fi and data access.	150	2.74	.915	Moderate Constraint
9. Tablets or mobile devices for learning.	150	2.59	1.043	Moderate Constraint
10. Educational software and applications.	150	2.46	1.008	Weak Constraint
Total	150	2.88		**Moderate Constraint**

Table 2.3 Mean and Descriptive Interpretation of Resource Constraint-Technology and Digital Resources

Schools experience moderate technology and digital resource constraints, with an overall mean of 2.88, hindering effective instructional integration. Essential resources like teacher laptops and student computer laboratories face the highest moderate limitations (M=3.11), followed closely by audio-visual equipment, charging stations, and printers. Multimedia tools, reliable internet connectivity, and mobile devices also remain moderately constrained. In contrast, educational software is the single weak constraint (M=2.46). Ultimately, these findings reveal that while digital tools exist in schools, their general insufficiency and inconsistent availability directly impact the overall quality of digital instruction and restrict innovative classroom teaching practices within the modern educational landscape.

Financial Support	N	Mean	Std. Deviation	Descriptive Interpretation
1. School budget for classroom and building repairs.	150	3.34	.643	Moderate Constraint
2. School budget for instructional materials.	150	3.33	.755	Moderate Constraint
3. Timely release of MOOE (Maintenance and Other Operating Expenses).	150	3.30	.642	Moderate Constraint
4. Emergency funds for urgent school needs.	150	3.23	.752	Moderate Constraint
5. Funds for teacher professional development or training.	150	3.20	.733	Moderate Constraint
6. Financial assistance for needy students, including subsidies or stipends.	150	3.17	.757	Moderate Constraint
7. Support from LGUs or community partners.	150	3.13	.864	Moderate Constraint
8. Allocation for technology acquisition or maintenance.	150	3.10	.801	Moderate Constraint
9. Government grants or external funding programs.	150	3.08	.773	Moderate Constraint
10. School-based income-generating projects (IGPs).	150	3.01	.934	Moderate Constraint
Total	**150**	**3.19**		**Moderate Constraint**

Table 2.4 Mean and Descriptive Interpretation of Resource Constraint-Financial Support

Based on Table 2.4, schools in the remote areas of Indanan District face moderate financial resource constraints, indicated by an overall mean of 3.19. While allocations exist, funding remains insufficient to consistently cover operational, instructional, and developmental needs. The highest constraints involve budgets for classroom and building repairs (M = 3.34), instructional materials (M = 3.33), and timely MOOE release (M = 3.30). Emergency and teacher professional development funds also show moderate limitations. Furthermore, external and supplemental funding sources, like LGU

support and government grants, remain under-optimized. Ultimately, financial systems are active but inadequate, leading to persistent, manageable challenges.

Human Resources	N	Mean	Std. Deviation	Descriptive Interpretation
1. Substitute teachers when regular staff are absent.	150	3.52	.757	Strong Constraint
2. Enough qualified teachers for the enrollment.	150	3.51	.693	Strong Constraint
3. Regular supervision, coaching, and mentoring for teachers.	150	3.39	.740	Moderate Constraint
4. Opportunities for in-service training and professional development.	150	3.39	.653	Moderate Constraint
5. Adequate leadership and management support from school heads.	150	3.37	.651	Moderate Constraint
6. Recognition and incentives for teacher performance.	150	3.33	.720	Moderate Constraint
7. Availability of subject-specialist teachers (e.g., Science, Math, English).	150	3.27	.702	Moderate Constraint
8. Manageable teacher workload, including reasonable class sizes and duties.	150	3.26	.670	Moderate Constraint
9. Access to guidance counselors or student support services.	150	3.19	.766	Moderate Constraint
10. Support staff, including library assistants, administrative staff, and paraprofessionals.	150	3.19	.814	Moderate Constraint
Total	**150**	**3.34**		**Moderate Constraint**

Table 2.5 Mean and Descriptive Interpretation of Resource Constraint-Human Resources

Schools in the remote Indanan District face moderate overall human resource constraints (mean of 3.34), showing that while staffing exists, critical shortages impact educational efficiency. The most severe constraints involve securing substitute teachers (M = 3.52) and maintaining enough qualified personnel for enrollment (M = 3.51), which increases teacher workloads. Other areas, such as professional development, mentorship, and leadership support, experience moderate limitations, alongside insufficient subject specialists and incentives. Additionally, there are moderate gaps in student support services, including guidance counselors and administrative staff. Ultimately, these persistent staffing shortages and limited support systems collectively hinder effective instructional delivery and overall school operations.

Problem 2: Resource Constraints and their effect on Teaching Instructional Practices

Resource constraints and their effect on teaching instructional practices refer to lesson planning and preparation, teaching strategies and methodologies and classroom management and assessment. Table 4.2.a, Table 4.2b, and Table 4.2c portray the result of analysis.

Lesson Planning and Preparation	N	Mean	Std. Deviation	Descriptive Interpretation
1. Availability of textbooks in core subjects affects my lesson planning.	150	3.46	.729	Moderately Strong
2. Teacher's guides and reference books affect the quality of my lesson preparation.	150	3.35	.761	Moderately Strong
3. Teaching manipulatives affects my preparation of hands-on lessons.	150	3.27	.768	Moderately Strong
4. Visual aids affect the organization of my lesson plans.	150	3.27	.730	Moderately Strong
5. Supplementary learning materials limits my preparation of varied lesson activities.	150	3.22	.741	Moderately Strong
6. Locally developed modules affect my preparation for remedial or self-paced learning.	150	3.21	.745	Moderately Strong

7.	Availability of textbooks in core subjects affects my lesson planning.	150	3.17	.939	Moderately Strong
8.	Library resources affect my enrichment of lesson content.	150	3.13	.833	Moderately Strong
9.	Laboratory materials affect my preparation of science lessons.	150	3.08	1.013	Moderately Strong
10.	Access to printed assessment tools affects my planning of evaluations.	150	3.07	.902	Moderately Strong
	Total	**150**	**3.22**		**Moderately Strong**

Table 3.1 Mean and Descriptive Interpretation of Resource Constraints and their effect on Teaching Instructional Practices-Lesson Planning and Preparation

Resource constraints exert a moderately strong effect on teachers' lesson planning and preparation, as indicated by an overall mean of 3.22. Shortages in core textbooks (M = 3.46) and teacher's guides (M = 3.35) most strongly impact content design. Deficiencies in teaching manipulatives and visual aids (both M = 3.27) restrict interactive learning, while limited supplementary materials (M = 3.22) and modules (M = 3.21) hinder instructional flexibility. Furthermore, constraints in library, laboratory, and assessment tools reduce opportunities for enrichment and science-based activities. Ultimately, inadequate resources consistently limit creative and flexible planning, undermining the overall quality of classroom preparation.

	Teaching Strategies and Methodologies	**N**	**Mean**	**Std. Deviation**	**Descriptive Interpretation**
1.	Technology devices (computers, laptops) limit my use of innovative teaching strategies.	150	3.14	.875	Moderately Strong
2.	Projectors or smart TVs affects my use of multimedia instruction.	150	3.13	.910	Moderately Strong
3.	Internet connectivity limits my use of online and digital learning strategies.	150	3.13	.857	Moderately Strong
4.	Classroom space and facilities affect my use of group and cooperative learning.	150	3.09	.780	Moderately Strong
5.	Educational software and applications limit my use of technology-enhanced teaching.	150	3.09	.835	Moderately Strong
6.	Laboratory rooms or specialized classrooms affects my use of experiential learning strategies.	150	3.06	.884	Moderately Strong
7.	Large class size due to insufficient number of teachers affects my choice of teaching strategies.	150	3.01	.952	Moderately Strong
8.	Professional development opportunities affect my use of new teaching methodologies.	150	2.99	.948	Moderately Strong
9.	Audio-visual equipment affects my delivery of interactive lessons.	150	2.98	.823	Moderately Strong
10.	Financial support for instructional innovation limits my use of varied teaching strategies.	150	2.95	.954	Moderately Strong
	Total	**150**	**2.74**		**Moderately Strong**

Table 3.2 Mean and Descriptive Interpretation of Resource Constraints and their effect on Teaching Instructional Practices-Teaching Strategies and Methodologies

Resource constraints exert a moderately strong influence on teachers' instructional strategies, severely restricting their choice of methodologies. Limited access to technological tools like computers (M = 3.14), screens (M = 3.13), and reliable internet connectivity (M = 3.13) significantly hinders the implementation of innovative, multimedia-based instruction. Furthermore, structural environmental limitations such as constrained classroom space (M = 3.09), inadequate laboratory rooms (M = 3.06), and overwhelming class sizes (M = 3.01) impede collaborative and experiential learning. Coupled with low financial support (M = 2.95), these accumulated technological and infrastructural deficiencies ultimately reduce flexibility and hinder modern, learner-centered educational teaching methodologies.

Classroom Management and Assessment	N	Mean	Std. Deviation	Descriptive Interpretation
1. School leadership and administrative support affect classroom management and assessment practices.	150	3.27	.880	Moderately Strong
2. Classroom furniture and space affects effective classroom management.	150	3.27	.730	Moderately Strong
3. Printed assessment materials affect the quality of student assessment.	150	3.19	.798	Moderately Strong
4. Funds for classroom repairs or maintenance affects the learning environment.	150	3.15	.683	Moderately Strong
5. Ventilation, lighting, or sanitation facilities affects student behavior and discipline.	150	3.14	.769	Moderately Strong
6. Support staff affects classroom monitoring and management.	150	3.14	.883	Moderately Strong
7. Access to guidance counselors or student support services affects behavior management.	150	3.08	.764	Moderately Strong
8. Printers and photocopiers affect timely administration of assessments.	150	3.07	.828	Moderately Strong
9. Substitute teachers affect continuity of assessment and classroom routines.	150	2.95	1.012	Moderately Strong
10. Large class size due to teacher shortages affects classroom control.	150	2.90	.932	Moderately Strong
Total	**150**	**3.12**		**Moderately Strong**

Table 3.3 Mean and Descriptive Interpretation of Resource Constraints and their effect on Teaching Instructional Practices-Classroom Management and Assessment

Resource constraints have a moderately strong effect on classroom management and assessment practices, with an overall mean of 3.12. School leadership and classroom furniture emerged as the highest indicators (M = 3.27), proving that administrative and physical conditions significantly influence daily teaching. Limitations in printed materials, maintenance, ventilation, and support staff also reduce instructional and supervisory quality. Even lower indicators like substitute teachers and large class sizes still present notable obstacles. Overall, these findings confirm that limitations consistently shape educational outcomes, highlighting a critical need for adequate school facilities, robust support systems, and proper institutional staffing.

Problem 3: Resource Constraints and their Impact on Students' Learning Experiences

Resource constraints and their impact on students' learning experiences refer to academic performance, motivation and engagement, and access quality learning opportunities. Table 4.1, Table 4.2, and Table 4.3 portray the result of analysis.

Academic Performance	N	Mean	Std. Deviation	Descriptive Interpretation
1. Students tend to perform better academically when adequate learning resources are available.	150	3.35	.634	Moderate Extent
2. Access to sufficient learning tools helps improve students' mastery of their subjects.	150	3.25	.590	Moderate Extent
3. Resource shortages require students to spend additional time searching for necessary learning materials.	150	3.21	.745	Moderate Extent
4. Insufficient textbooks and learning materials negatively affect students' academic performance.	150	3.17	.699	Moderate Extent
5. Limited learning resources make it challenging for students to participate effectively in group projects and collaborative activities.	150	3.14	.714	Moderate Extent
6. The lack of reference materials limits students' understanding of complex topics.	150	3.12	.785	Moderate Extent

7. Inadequate classroom facilities reduce students' ability to understand lessons and perform well academically.	150	3.07	.715	Moderate Extent
8. Resource constraints may lead to lower exam scores and overall academic grades among students.	150	3.06	.813	Moderate Extent
9. Insufficient classroom resources make it difficult for students to achieve their learning objectives.	150	2.98	.660	Moderate Extent
10. Limited access to technological resources, such as computers and the internet, makes it difficult for students to complete assignments effectively.	150	2.83	.689	Moderate Extent
Total	**150**	**3.12**		**Moderate Extent**

Table 4.1 Mean and Descriptive Interpretation of Resource Constraints and their Impact on Students' Learning Experiences-Academic Performance

Table 4.1 indicates that resource constraints moderately influence students' academic performance with an overall mean score of 3.12. The availability of essential learning materials significantly impacts overall achievement, while shortages severely hinder academic success and efficiency. Specifically, having adequate resources yields much better academic performance and deep subject mastery. Conversely, insufficient textbooks, poor classroom facilities, and limited reference materials create learning delays, affect lesson comprehension, and lower examination grades. Furthermore, digital gaps like restricted computer and internet access pose additional daily challenges. Ultimately, these findings emphasize the critical need for improved educational support systems and learning resources to elevate outcomes.

Motivation and Engagement	**N**	**Mean**	**Std. Deviation**	**Descriptive Interpretation**
1. Students show higher motivation when classroom resources are sufficient.	150	3.39	.665	Moderate Extent
2. Adequate learning materials help students remain focused and engaged in lessons.	150	3.34	.703	Moderate Extent
3. Availability of appropriate learning tools encourages students to actively participate in discussions.	150	3.29	.630	Moderate Extent
4. Insufficient resources make students less interested in completing academic tasks.	150	3.21	.782	Moderate Extent
5. Lack of learning materials reduces students' engagement during lessons.	150	3.21	.824	Moderate Extent
6. Resource scarcity discourages students from putting in their best effort.	150	3.19	.673	Moderate Extent
7. Students' motivation to participate in class decreases when learning resources are limited	150	3.15	.693	Moderate Extent
8. Lack of resources increases students' stress and decreases interest in learning.	150	3.07	.795	Moderate Extent
9. Students' confidence to engage in learning activities is affected by inadequate resources.	150	3.07	.766	Moderate Extent
10. Limited resources reduce students' willingness to collaborate with peers.	150	3.06	.813	Moderate Extent
Total	**150**	**3.12**		**Moderate Extent**

Table 4.2 Mean and Descriptive Interpretation of Resource Constraints and their Impact on Students' Learning Experiences-Motivation and Engagement

The data indicates that resource constraints have a moderate impact on student motivation and classroom engagement, reflected by an overall mean score of 3.12. Findings show that students display higher motivation (M = 3.39) and remain more focused (M = 3.34) when learning materials are sufficient and accessible. Conversely, insufficient resources lead to a visible decline in participation, resulting in less interest in completing tasks (M = 3.21) and reduced academic drive. Furthermore, resource limitations negatively affect emotional and social well-being, increasing stress and reducing student

collaboration. Ultimately, the findings emphasize that securing adequate instructional tools is absolutely critical to sustaining active classroom participation and interest.

Access to Quality Learning Opportunities	N	Mean	Std. Deviation	Descriptive Interpretation
1. Access to updated and sufficient resources enhances students' learning experiences.	150	3.33	.702	Moderate Extent
2. Providing adequate resources enables students to access new and innovative learning experiences.	150	3.27	.739	Moderate Extent
3. Limited access to technology restricts students' participation in online learning platforms.	150	3.21	.745	Moderate Extent
4. Insufficient learning resources prevent students from fully developing their academic potential.	150	3.15	.736	Moderate Extent
5. Students have fewer opportunities to explore additional learning materials due to resource shortages.	150	3.14	.733	Moderate Extent
6. Resource limitations create inequality in learning opportunities among students.	150	3.12	.741	Moderate Extent
7. Resource constraints negatively impact the overall quality of students' education.	150	3.12	.732	Moderate Extent
8. Students miss out on quality learning experiences because of inadequate classroom resources.	150	3.12	.713	Moderate Extent
9. Resource constraints limit students' participation in enrichment programs, tutorials, or supplemental lessons.	150	3.10	.693	Moderate Extent
10. Resource constraints reduce students' chances of attending workshops, seminars, or academic events.	150	3.05	.731	Moderate Extent
Total	**150**	**3.16**		**Moderate Extent**

Table 4.3 Mean and Descriptive Interpretation of Resource Constraints and their Impact on Students' Learning Experiences-Access to Quality Learning Opportunities

Resource constraints moderately influence students' access to quality learning opportunities, yielding an overall mean of 3.16. Findings demonstrate that updated, sufficient resources heavily enhance learning experiences (M=3.33) and enable innovative student engagement (M=3.27). Conversely, shortages in digital tools restrict modern, online platform involvement (M=3.21). Insufficient materials narrow academic growth (M=3.15) and exploration (M=3.14), while driving educational inequality and reduced quality (M=3.12). Even lesser impacts like reduced workshop attendance (M=3.05) maintain a moderate effect. Ultimately, these structural gaps reshape critical learner opportunities, strongly underscoring the vital importance of improving resource availability to guarantee equitable, enriched educational experiences for every single individual.

Problem 4: Interventions and Policy Recommendations

Interventions and policy recommendations are strategies to address resource constraints and improve teaching and learning. Table 5 presents the results.

Interventions and Policy Recommendations	N	Mean	Std. Deviation	Descriptive Interpretation
1. Supplying teacher's guides, reference books, and supplementary resources will strengthen lesson preparation.	150	3.60	.613	Great Extent
2. Conducting regular in-service training and professional development will enhance teachers' instructional practices.	150	3.58	.594	Great Extent
3. Establishing reliable electricity and connectivity will support effective classroom activities.	150	3.57	.583	Great Extent

4. Strengthening partnerships with LGUs, NGOs, and community groups will help provide additional human and material support.	150	3.57	.628	Great Extent
5. Repairing and maintaining school facilities (toilets, roofs, water supply) will promote safe and healthy schooling.	150	3.57	.639	Great Extent
6. Increasing the school budget will address shortages in materials, facilities, and maintenance.	150	3.56	.640	Great Extent
7. Hiring more qualified teachers will help reduce workload and improve teaching quality.	150	3.56	.650	Great Extent
8. Distributing adequate visual aids, manipulatives, and teaching kits will make classroom teaching more effective.	150	3.55	.608	Great Extent
9. Offering teacher training on ICT use will maximize the impact of limited digital resources.	150	3.55	.651	Great Extent
10. Providing enough textbooks, modules, and workbooks will improve lesson delivery in remote schools.	150	3.55	.619	Great Extent
11. Improving classroom spaces (size, ventilation, lighting) will enhance the learning environment.	150	3.54	.641	Great Extent
12. Providing adequate furniture (student chairs, desks, teacher tables) will reduce classroom management difficulties.	150	3.51	.642	Great Extent
13. Providing ICT tools (computers, projectors, printers, internet) will strengthen technology integration in lessons.	150	3.51	.632	Great Extent
14. Providing student financial assistance (scholarships, subsidies) will reduce the effects of poverty on learning.	150	3.43	.755	Moderate Extent
15. Ensuring timely release of funds will reduce delays in instructional preparation and school improvement.	150	3.43	.680	Moderate Extent
Total	**150**	**3.54**		**Great Extent**

Table 5 Mean and Descriptive Interpretation for Interventions and Policy Recommendations

Respondents strongly support the proposed policy recommendations to address school resource constraints, yielding a high overall mean score of 3.54. Supplying instructional materials emerged as the top priority, closely followed by regular teacher professional development. Infrastructure upgrades, including stable electricity, internet connectivity, and facility repairs, alongside localized community partnerships, also received high marks. Budget increases, hiring qualified educators, and digital tool integration remain critical needs. While student financial assistance and timely funding release scored lower, stakeholders universally agree that a holistic combination of material resource allocation, infrastructure improvement, and teacher support is vital for enhancing educational quality in remote schools.

Conclusion and Recommendations

Conclusion

Based on the findings of the study, it is evident that resource constraints persist as a major concern in schools, particularly in the areas of human resources, instructional materials, facilities and infrastructure, financial support, and technology and digital resources. These constraints are generally experienced at moderate to strong levels, with human resources emerging as the most critical issue that significantly affects the overall functioning of schools and the delivery of instruction.

In relation to instructional practices, it is concluded that these limitations have a substantial impact on teachers' lesson planning, teaching strategies and methodologies, and classroom management and assessment. The shortage of instructional materials, limited access to technology, and inadequate school facilities restrict teachers' capacity to implement effective, varied, and learner-centered instructional approaches.

Similarly, it is concluded that resource constraints considerably influence students' academic performance, motivation, engagement, and access to quality learning opportunities. Although learners are still able to meet academic requirements, their learning experiences become more meaningful and productive when adequate resources are provided, underscoring the importance of sufficient support in improving learning outcomes.

Finally, it is concluded that there is strong agreement on the need for appropriate interventions. Improving instructional resources, strengthening teacher training and professional development, upgrading school facilities, increasing financial support, and enhancing collaboration with stakeholders are essential strategies to address identified gaps and improve the overall quality of education.

Recommendations

Based on the study's conclusions, comprehensive recommendations and immediate action items are outlined to resolve severe resource constraints and uplift education quality in remote schools. On a policy level, the Department of Education (DepEd) and key stakeholders must significantly increase budget allocations to prioritize critical components like human resources, modern technology, learning materials, and facilities. Policymakers are urged to guarantee the timely, equitable distribution of these resources to geographically isolated areas. Furthermore, structural improvements must include robust teacher recruitment, retention incentives, and continuous professional development focused on resource-efficient pedagogy. Enhancing multi-sectoral partnerships with Local Government Units, NGOs, and the private sector, alongside rigorous monitoring systems, will optimize resource tracking.

Concurrently, the study highlights critical research problems requiring urgent practical intervention. Remote schools suffer from acute shortages of teachers and support staff, severely hampering daily operations and instructional delivery. This is compounded by an insufficiency of engaging instructional tools, deficient infrastructure that disrupts classroom management, and extremely limited digital access, which stifles modern pedagogy. Addressing these pervasive systemic deficiencies and financial gaps is essential to ultimately improve student learning outcomes and secure an equitable educational environment.

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Appendices

No appendices are attached to this study.