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Creative and Innovative Teaching Approaches of Basic Education Teachers in Geographically Isolated and Disadvantaged Areas

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ABSTRACT

This study explored the creative and innovative teaching approaches employed by teachers in geographically isolated and disadvantaged areas, focusing on how they overcome challenges such as limited resources, diverse student needs, infrastructural constraints, and environmental challenges. Twenty teachers participated through key informant interviews, providing insights into the unique strategies they developed to deliver quality education under challenging conditions. The most pressing issue identified was the severe scarcity of teaching and learning resources, compelling teachers to rely heavily on their creativity and resourcefulness. Many educators utilized indigenous materials to create teaching aids, integrating culturally relevant content into their lessons, which not only alleviated financial burdens on students' families but also enriched the learning experience. Another significant challenge was student absenteeism, driven by poverty, family obligations, and environmental challenges. To mitigate this, teachers developed creative solutions like take-home worksheets, enabling students to continue their education despite frequent absences. Additionally, teachers provided individualized instruction to ensure that all students, regardless of their circumstances, had the opportunity to succeed. In multi-grade classrooms, where students of various grade levels are combined, teachers employed differentiated learning strategies to meet the diverse needs of their students, further demonstrating their adaptability and commitment. These findings underscore the resilience and innovation of teachers in underserved communities, who continuously strive to provide accessible and meaningful education despite profound challenges. Their efforts highlight the importance of context-sensitive teaching practices that consider the socio-economic realities of students' lives. The study emphasizes the need for continued support and recognition of these educators, whose work is vital to the educational success and overall well-being of the communities they serve.

Keywords: Creative and Innovative Teaching Approaches, Teachers, Geographically Isolated and Disadvantaged Areas, Qualitative Research

INTRODUCTION

Teachers assigned to geographically isolated and disadvantaged areas, particularly in the Global South, face an array of challenges that require them to be exceptionally adaptable and resourceful. These educators often contend with limited access to educational resources, inadequate infrastructure, and sometimes even unsafe environments, all of which can hinder the learning process (Adnot et al., 2017; UNESCO, 2020). To address these challenges, teachers must develop and implement innovative teaching strategies tailored to the specific

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needs of their learners, who may come from diverse linguistic, cultural, and socioeconomic backgrounds (Bansilal, 2015).

Innovation in teaching in these contexts is not just a matter of using new tools or technologies; it involves rethinking traditional pedagogical approaches and creating strategies that are culturally relevant and contextually appropriate (Amimo et al., 2015; Talvio et al., 2024). Teachers in such settings often have to rely on their creativity to design instructional materials, develop alternative assessment methods, and engage students in meaningful learning experiences, despite the constraints they face (McNulty et al., 2016).

Flexibility and resourcefulness are essential traits for teachers working in these environments. They must be able to adapt to rapidly changing conditions, such as fluctuating student attendance due to external factors like weather conditions or economic demands on families (Guerrero et al., 2020). Moreover, these teachers often play multiple roles within the community, serving not only as educators but also as mentors, counselors, and advocates for their students' well-being (Chinsamy & Plüddemann, 2019). This multifaceted role requires a high level of emotional intelligence and commitment, further underscoring the need for innovation and creativity in their teaching practices.

The most appropriate theory to serve as the theoretical anchor for this study is Albert Bandura's Social Cognitive Theory (SCT). This theory provides a comprehensive framework for understanding how teachers assigned to geographically isolated and disadvantaged areas adapt and innovate in response to the unique challenges they face. It posits that human behavior is a result of the dynamic interplay between personal, behavioral, and environmental factors (Bandura, 1986). In the context of teachers in geographically isolated and disadvantaged areas, this theory helps explain how educators' beliefs in their own capabilities (self-efficacy), the behaviors they exhibit, and the environment in which they work interact to influence their teaching practices and innovations.

Moreover, a central concept in SCT is self-efficacy, which refers to an individual's belief in their ability to achieve goals or complete tasks. Teachers in challenging environments, such as those in geographically isolated areas, must often rely on their self-efficacy to persevere through difficulties, such as lack of resources or infrastructural support. High levels of self-efficacy enable these teachers to believe in their ability to develop and implement innovative teaching strategies, despite the constraints they face (Tschannen-Moran & Hoy, 2001).

Another key aspect of SCT is the concept of observational learning, where individuals learn by observing others' behaviors and the consequences of those behaviors. Teachers in disadvantaged areas may not have direct access to professional development resources, but they can still learn innovative practices by observing peers, seeking out mentorship, or engaging in collaborative networks, either in-person or virtually (Schunk, 2012). This aspect of SCT underscores the importance of community and collaboration among educators, particularly in isolated settings.

Additionally, SCT also emphasizes the concept of reciprocal determinism, where the environment, individual, and behavior mutually influence each other. In the context of this study, the challenging environments that these teachers operate in push them to develop innovative strategies. In turn, these innovative practices can positively influence the learning environment, potentially leading to improved student outcomes and a more supportive teaching environment (Bandura, 2001). This dynamic interplay highlights the adaptability and resourcefulness required of teachers in such contexts.

Furthermore, Social Cognitive Theory also explains how individuals adapt to their environment through resilience, a concept closely linked with self-efficacy (de la Fuente et. al., 2023). Teachers in geographically isolated and disadvantaged areas demonstrate resilience as they adapt to changing circumstances and continue to provide quality education to their

students. This resilience is fueled by their belief in their ability to overcome challenges and make a positive impact on their students' lives (Gu & Day, 2007).

This study aimed to explore and document the creative and innovative teaching approaches employed by teachers working in geographically isolated and disadvantaged areas. By focusing on these unique contexts, the research sought to uncover the strategies that educators develop to overcome challenges such as limited resources, diverse student needs, and infrastructural constraints. The study also aimed to highlight the adaptability and resourcefulness of these teachers as they strive to provide quality education despite the obstacles they face.

MATERIALS AND METHODS

Research Design

This study employed a Descriptive Research Design, utilizing qualitative data collection techniques, specifically key informant interviews (KII). The Descriptive Research Design is particularly suited for studies aiming to systematically describe a phenomenon or condition in detail (Koh & Owen, 2000). In this context, it is used to explore and document the creative and innovative teaching strategies employed by teachers in geographically isolated and disadvantaged areas. This design is well-suited for research that seeks to uncover existing conditions, relationships, and practices, as well as to understand prevailing beliefs, ongoing processes, observed effects, and emerging trends within a specific context. By capturing the salient experiences and perspectives of the teachers through qualitative methods, this study provides a rich, in-depth understanding of the adaptive and inventive approaches that these educators develop in response to the challenges they face.

Research Locale

The study was conducted in the hinterlands of Bukidnon, Misamis Oriental, and Cagayan de Oro City, all of which are part of Region 10, an administrative region in the northern part of Mindanao, Philippines. Region 10 is comprised of five provinces: Misamis Oriental, Bukidnon, Misamis Occidental, Camiguin, and Lanao del Norte, along with the highly urbanized cities of Cagayan de Oro and Iligan. Cagayan de Oro City serves as the regional center. Bukidnon, covering 59% of the region, is the largest province in Mindanao by land area, while Camiguin, after Batanes, is the second-smallest province in the country in terms of both population and land area.

As of the 2020 Census, the region's population stood at 5,022,768, accounting for 19.13% of Mindanao's population and 4.61% of the entire Philippine population (PhilAtlas, 2020). The population density is 246 people per square kilometer. Furthermore, the police-to-population ratio in the region improved from 1:691 in 2017 to 1:578 in 2018, reflecting the increase in the number of police officers from 7,808 in 2017 to 8,412 in 2018. This increase was due to the recruitment and training of additional officers aimed at enhancing crime prevention and maintaining public safety in the area.

Research Participants

The participants of this study included 20 teachers, comprising 13 females and 7 males, with ages ranging from 27 to 38 years. Of these participants, 11 were single, while 9 were married.

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and infrastructural constraints. The study also aimed to highlight the adaptability and resourcefulness of these teachers as they strive to provide quality education despite the obstacles they face.

Research Instrument

This study utilized a key informant interview guide with open-ended questions designed to elicit insights into the creative and innovative teaching approaches employed by teachers in geographically isolated and disadvantaged areas. Through these targeted questions, the study uncovered the inventive strategies and practices that teachers developed and implemented to address challenges such as limited resources, diverse student needs, and infrastructural constraints. The open-ended nature of the questions allowed for in-depth exploration of the participants' experiences, providing a comprehensive understanding of how these educators adapt to and overcome the obstacles they face.

Data Gathering Procedure

This study followed a systematic approach to data collection, beginning with the identification of key informants based on specific criteria. First, the informants were selected from elementary school teachers working in geographically isolated and disadvantaged areas. Second, only those who willingly agreed to participate, having provided their informed consent, were included in the study. Finally, the selected informants were those who were able to offer valuable insights into the creative and innovative teaching approaches they employed in their challenging environments.

Ethical Considerations

It is important to note that this study was conducted with the participants' fully informed and freely given consent. The research process was thoroughly explained to the participants, including the study's purpose, objectives, and methodology. Clear communication ensured that participants understood what their involvement would entail, who would have access to the data, and how the data would be utilized and securely stored. Additionally, participants were informed of their right to decline participation at any stage without any repercussions. They were also made aware of the potential uses of the data collected, ensuring that their participation was based on a complete understanding of the research and its implications.

RESULTS AND DISCUSSION

Teachers assigned to geographically isolated and disadvantaged areas encounter a range of challenges that necessitate creative and innovative approaches to effectively deliver basic education. These educators often grapple with limited resources, diverse student needs, environmental challenges, and significant infrastructural constraints, such as the absence of information and communication technology (ICT), science laboratories, and reliable internet connectivity. Despite these hurdles, they are driven to develop unique strategies to engage students and improve learning outcomes, exemplifying resilience and adaptability in their unwavering commitment to providing quality education in underserved communities.

The most pressing challenge faced by teachers in geographically isolated and disadvantaged areas is the severe scarcity of teaching and learning resources. One key informant (of which several affirmed) poignantly shared,

> *'Students in the hinterland often cannot afford even the most basic supplies such as paper, pencils, ballpens, notebooks, and crayons—let alone textbooks and other essential learning materials. Their families, primarily subsistence farmers, struggle with limited income, making it difficult to provide for their children's educational needs.' This lack of resources forces teachers to rely heavily on their creativity and*

resourcefulness. To overcome these challenges, teachers often turn to indigenous materials, repurposing natural and locally available resources to create teaching aids and classroom materials. This approach not only alleviates the financial burden on students and their families but also enriches the learning experience by integrating culturally relevant content and practices into the curriculum. By doing so, teachers demonstrate remarkable resilience and innovation, ensuring that education remains accessible and meaningful, even in the most resource-constrained environments.'

The scarcity of teaching and learning resources is a significant challenge for teachers in remote and economically disadvantaged areas (Kaden, 2020). Students from low-income families often lack basic educational supplies due to financial constraints (Adams & Nicolson, 2021). Teachers respond to these challenges by creatively using indigenous materials to create teaching aids, thereby enriching the learning experience and ensuring that education remains accessible (Reyes & Baranda, 2019). This resilience and innovation are critical for maintaining educational standards in such challenging environments (Villanueva, 2020).

Another significant challenge faced by teachers in geographically isolated and disadvantaged areas is student absenteeism, largely driven by poverty and family obligations. Many students are required by their parents to miss school in order to assist with farming activities, particularly during planting and harvesting seasons. Additionally, students are often tasked with taking care of younger siblings when their parents are occupied in the fields or transporting farm produce to the market. Three teachers who participated in the study gave the following narratives:

"I teach multi-grade classes, and one of the most common challenges I face is student absenteeism. To better understand the reasons for their frequent absences, I conduct home visitations. I discovered that many of these students come from economically disadvantaged families. During planting and harvest seasons, they are often required to assist their parents in the fields. Additionally, when their parents sell farm produce, the children are needed at home to care for their younger siblings."

For families struggling with poverty, education is frequently deprioritized in favor of immediate survival needs, such as ensuring food security. To address this issue, teachers have developed creative solutions to help students keep up with their studies despite their frequent absences. One such approach involves creating worksheets that students can take home to read and complete during their time away from school. While many students are able to catch up on lessons using these worksheets, others require additional support to fully grasp the material. As one key informant noted, *'For those who did not do well with their worksheets, extra time is provided for teachers to explain and guide them through the concepts they struggled with.'* This individualized instruction ensures that all students, regardless of their circumstances, have the opportunity to succeed.

In some cases, teachers have gone a step further by redesigning the worksheets to make them easier for students to follow independently, without compromising the learning competencies that need to be developed. As another key informant shared, *'We sometimes modify the worksheets to simplify the instructions and content, making it more accessible for students who are learning on their own at home.'* These efforts demonstrate the teachers' commitment to ensuring that every student receives a quality education, even when faced with the challenges of poverty and absenteeism.

These results imply that student absenteeism in geographically isolated and disadvantaged areas is a persistent issue, particularly in communities where poverty and family

obligations take precedence over education. Studies have shown that in rural areas, economic pressures often force children to contribute to the household income or take on caregiving roles, which significantly impacts their school attendance (Glewwe & Kremer, 2020). This situation is exacerbated during critical agricultural periods such as planting and harvesting seasons, when the need for extra hands on the farm becomes paramount (Smith, 2019). In such contexts, education is frequently deprioritized, as immediate survival needs, like ensuring food security, overshadow the long-term benefits of schooling (Banerjee & Duflo, 2019).

Another significant factor contributing to student absenteeism is the occurrence of floods, often triggered by natural calamities. When heavy rains cause rivers and creeks to overflow, roads become muddy and impassable, with dangerous currents making travel between home and school hazardous. In many rural areas, where infrastructure is already limited, these conditions exacerbate the challenges faced by students. The safety risks associated with navigating flooded paths discourage students and parents from attempting the journey, leading to a spike in absences during such periods.

One teacher shared, *"Some of our students have to cross more than one creek or river just to get to school. It's truly a sacrifice for them, and I understand because I face the same challenges. When academic time is disrupted, I have to come up with innovative and creative teaching approaches to compensate for the lost time. How I address it depends on the topics they've missed, but I always ensure that the alternative learning modes I provide can be completed independently by the students. However, I still supervise closely to identify if anyone needs individualized instruction. It's crucial for us teachers to make sure that students acquire the required competencies despite these challenges."*

This statement underscores the resourcefulness and commitment of teachers who, despite facing the same environmental challenges as their students, go the extra mile to ensure learning continuity. The teacher's focus on independent learning strategies, combined with personalized support where necessary, reflects a deep understanding of both the limitations and potentials of the students. Such an adaptive approach is crucial, especially in rural or disaster-prone areas, where conventional teaching methods may not always be feasible. It highlights the need for flexibility in pedagogy, as well as the importance of maintaining educational standards even in the face of significant external disruptions.

Moreover, the impact of floods on education goes beyond the immediate disruption of travel. Prolonged absences can cause students to fall behind in their studies, particularly in communities where access to remote learning resources is minimal or nonexistent. In areas where floods are a recurring issue, absenteeism may become chronic, leading to wider educational gaps. These interruptions not only affect students' academic progress but also their overall engagement and motivation, as repeated setbacks can lead to disillusionment with schooling.

Additionally, to mitigate the effects of absenteeism, teachers have employed innovative strategies to ensure that students do not fall behind academically. One effective method is the development of take-home worksheets, which allows students to continue their education even when they are unable to attend school regularly. This approach has been supported by research showing that alternative learning materials, when properly designed, can significantly enhance student engagement and learning outcomes in resource-constrained environments (Evans & Popova, 2016). Moreover, individualized instruction, where teachers provide extra time and tailored guidance to students struggling with the material, has been shown to improve academic performance, especially among those from disadvantaged backgrounds (Murnane & Ganimian, 2016).

In response to the unique challenges faced by their students, some teachers have further adapted their teaching materials by simplifying the content and instructions of worksheets. This approach aligns with findings from educational research, which suggests that simplifying

learning materials can improve comprehension and retention, particularly for students who are learning independently or in environments with limited support (Anderson & Shattuck, 2012). By making educational content more accessible, teachers help bridge the gap caused by absenteeism, ensuring that students continue to develop essential competencies despite their circumstances.

These adaptive strategies reflect the resilience and dedication of teachers in underserved communities, who continuously seek ways to provide quality education to all students. Their efforts underscore the importance of context-sensitive teaching practices that consider the socio-economic realities of students' lives, ensuring that education remains a viable and valuable pursuit even in the face of significant challenges.

Furthermore, many teachers in geographically isolated and disadvantaged areas are tasked with handling multi-grade classes, where students from different grade levels, such as grades 1 to 3 or grades 4 to 6, are combined into a single classroom. This situation presents a unique set of challenges, demanding a high level of creativity and innovation from educators. According to key informants, managing multi-grade classes requires teachers to adopt differentiated learning strategies that cater to the diverse needs and abilities of students across various grade levels. Differentiated instruction involves tailoring teaching methods, materials, and pacing to meet the specific learning needs of each grade, ensuring that all students can achieve the required competencies in every subject. Here are some narratives of the participants:

> *"Teaching multi-grade classes has consistently been a challenge for teachers assigned to remote and underserved areas. It requires us to devise creative and innovative strategies that engage students in the learning process. For example, I organize various activity stations within the classroom where students from different grade levels rotate. Each station is dedicated to a specific subject, such as math, reading, or science, and offers both independent and group activities. This approach allows students to progress at their own pace while enabling me to provide guidance by moving between stations."*

> *"In my case, I use what are available in the surroundings without spending anything. For example, I teach math concepts using farm produce, rocks, and other easily accessible items. When learning about ecosystems, we explore the local environment. This hands-on, practical approach not only enhances the learning experience but also makes lessons more relevant and engaging for students in remote areas, connecting their education to their everyday surroundings."*

> *"I prefer using low-tech tools that do not use internet connectivity. These includes localized flashcards, indiginized board games, and traditional folk games like 'sungka,' as I believe they can significantly enhance learning. Even in the absence of internet access, these simple teaching aids and low-tech resources can effectively support diverse learning needs while making lessons more engaging and interactive."*

This approach requires teachers to be not only resourceful but also deeply attentive to the context of their learners. Teachers must invest considerable time and effort in understanding the individual backgrounds, learning styles, and developmental stages of their students. This understanding allows them to design and implement teaching strategies that are both effective and inclusive, fostering an environment where students of different ages and abilities can thrive.

The effectiveness of differentiated instruction in multi-grade settings is supported by educational research, which emphasizes the importance of adapting teaching methods to meet

diverse student needs. Studies have shown that differentiated learning can significantly enhance student engagement and academic achievement, particularly in multi-grade classrooms where traditional, one-size-fits-all approaches may fall short (Tomlinson, 2014). Moreover, research indicates that when teachers are skilled in differentiating instruction, students are more likely to experience academic success and develop a positive attitude towards learning (Hall, Strangman, & Meyer, 2011).

Moreover, despite the challenges, teachers find consolation in the gratitude and motivation expressed by their students. The appreciation from students serves as a powerful affirmation of the teachers' efforts, reinforcing their commitment to providing quality education under challenging circumstances. As one key informant shared, the moments when students thank their teachers for the motivation and support they receive in a multi-grade setting are deeply rewarding and serve as a testament to the impact of their innovative teaching practices.

These experiences highlight not only the resilience and dedication of teachers but also the innovative strategies they employ to address the diverse needs of students in multi-grade classrooms. Faced with limited resources, and varying levels of student ability, these teachers demonstrate exceptional commitment to fostering an inclusive and supportive learning environment. By embracing differentiated instruction, they are able to tailor lessons to accommodate students' individual learning styles and pace, ensuring that no student is left behind.

Furthermore, their ability to adapt to constantly shifting educational landscapes—whether due to socio-economic challenges, and lack of infrastructure—illustrates the significance of flexibility in teaching. These efforts are critical in promoting equity in education, particularly in marginalized or underserved communities. Their work not only makes education more accessible but also nurtures the holistic development of students, preparing them to navigate complex real-world challenges.

This emphasis on adaptability and personalized learning is strongly aligned with the OECD Learning Framework 2030 (OECD, 2018), which advocates for student-centered learning approaches that foster individual growth, creativity, and resilience (Herodotou et. al., 2019). By integrating these principles, these teachers contribute to a more inclusive and future-oriented educational model that equips students with the skills necessary to thrive in an increasingly interconnected and uncertain world.

CONCLUSIONS

The challenges faced by teachers in geographically isolated and disadvantaged areas are significant, yet these educators consistently demonstrate remarkable resilience and innovation in their commitment to delivering quality education. The scarcity of teaching and learning resources, coupled with the widespread issue of student absenteeism due to poverty, family obligations, and environmental challenges underscores the difficult conditions under which these teachers operate. Nevertheless, they respond to these challenges with creative solutions, such as the use of indigenous materials and the development of take-home worksheets, which help ensure that education remains accessible even in the most resource-constrained environments.

Teachers also employ differentiated learning strategies in multi-grade classrooms, allowing them to address the diverse needs of students from various grade levels. This adaptability is crucial in fostering an inclusive learning environment where all students, regardless of their circumstances, have the opportunity to succeed. The appreciation and motivation expressed by students serve as a powerful testament to the impact of these efforts, reinforcing the importance of context-sensitive teaching practices that take into account the socio-economic realities of students' lives.

Ultimately, the experiences of these teachers highlight the critical role of creativity, resourcefulness, and dedication in overcoming the obstacles inherent in providing education in geographically isolated and disadvantaged areas. Their work not only ensures that education is delivered despite the odds but also exemplifies the resilience required to maintain educational standards in the face of profound challenges. These findings emphasize the need for continued support and recognition of the unique contributions of teachers in these settings, as their efforts are vital to the educational success and overall well-being of the communities they serve.

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