




Exploring challenges and factors in students' literacy: basis for intervention program development

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ABSTRACT

This study employed a descriptive-exploratory research design using the Participatory Rapid Rural Appraisal (PRRA) approach, a participatory research method designed to elicit insights from the local community. PRRA facilitated the identification of literacy challenges within selected schools, fostering a collaborative effort with representatives from various sectors in Barangay Tabugon, Sta. Elena Camarines Norte, Philippines. By engaging these stakeholders, the study aimed to comprehensively address critical issues, including limited resources, overcrowded classrooms, and insufficient parental involvement, all of which significantly impact effective learning. The findings suggest evidence-based intervention strategies to improve literacy outcomes and contribute to the community's holistic development. The study recommends the implementation of a literacy enhancement and assistance program for the community.

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INTRODUCTION

The Philippines grapples with significant challenges in its education system and rural development, with the COVID-19 pandemic exacerbating these existing issues (Philippine Rural Development Problems Issues and Directions, n.d.). Even before the outbreak, the country's financial status played a significant role in the growing education problems. According to a 2018 study conducted by the World Bank, Filipino students ranked last in reading comprehension out of 79 countries, especially affecting those attending public schools (The World Bank, 2018). This stark educational disparity reflects a concerning class divide, where students from affluent backgrounds and urban areas enjoy better access to private schools, well-equipped facilities, and experienced educators, while underprivileged groups struggle with inadequate classrooms, limited teaching resources, and fewer qualified teachers (Collado, 2019). Moreover, the Philippines' comparatively low education budget compared to other ASEAN countries further impacts the quality of education and

perpetuates the disparities in the education sector (Department of Education, 2020).

In 2023, Microtrends reported that the adult literacy rate in the Philippines refers to the percentage of individuals aged 15 and above who possess the ability to both read and write, with an understanding of short, simple statements related to their everyday lives. Examining the historical data, it's evident that the Philippines has experienced fluctuations in its literacy rate over the years. In 2019, the literacy rate was recorded at 96.28%, indicating a 1.9% decrease compared to the figure from 2015. However, there was a positive trend between 2015 and 2013, as the literacy rate increased by 1.78%. Going further back, in 2013, the literacy rate was at 96.40%, representing a 0.98% rise from 2008. Notably, the period from 2008 to 2003 saw a significant increase in literacy, with the rate climbing by 2.83%. These figures underscore the dynamic nature of literacy rates in the Philippines, highlighting the importance of ongoing efforts to promote and maintain literacy levels in the country.

As the pandemic struck, the education landscape witnessed a monumental shift as distance learning became the primary mode of education. However, this transition posed numerous challenges for millions of Filipinos who lacked access to essential digital tools, hindering their learning experience and widening the educational gap ([Thinking Machines, 2021](#)). Parents and guardians faced immense difficulties in providing the necessary equipment and stable internet connections for their children's education, particularly in rural areas where digital infrastructure is limited ([Medhyve, 2021](#)). Furthermore, school closures resulting from the pandemic led to nearly 4 million students being unable to enroll, exacerbating the number of out-of-school youth (Department of Education, 2020). The growing number of out-of-school youth raises serious concerns about their long-term prospects and the potential consequences for the nation's future development.

In response to these pressing challenges, the present study takes a proactive approach by utilizing a Participatory Rapid Rural Appraisal (PRRA) approach to assess the challenges of literacy among students at Tabugon Elementary School. The PRRA approach actively involves diverse stakeholders, including educators, youth, representatives from different sectors, and local government officials, to gain valuable insights into the challenges faced by the rural community (Philippine Rural Development Problems Issues and Directions, n.d.). By employing the PRRA methodology, the study ensures that interventions and proposed strategies are contextually relevant and responsive to the specific needs of Tabugon's educational landscape.

The study utilizes a Participatory Rapid Rural Appraisal (PRRA) approach to assess the challenges of literacy among students at Tabugon Elementary School. By specifically addressing the literacy needs of the students in this rural community, the research aims to contribute to the enhancement of educational outcomes and overall literacy levels ([Enicola, 2021](#)). Moreover, it seeks to foster holistic development and progress within the rural community, ultimately making a valuable contribution to the collective advancement of the Philippines as a whole.

Recognizing the significance of collaboration, the study emphasizes the active involvement of the

research team, educators, community members, and other stakeholders. Together, they will work towards designing contextually appropriate and impactful interventions to address the identified challenges. This collaborative effort is essential in creating a sustainable and empowering environment that nurtures and supports the growth and aspirations of young learners in Barangay Tabugon, Camarines Norte, Philippines.

By actively engaging with the community and acknowledging the realistic issues faced by students, such as insufficient resources, limited access to reading materials, and overcrowded classrooms, the research aims to provide evidence-based recommendations. These recommendations will be contextually relevant and responsive to the specific literacy challenges encountered by students at Tabugon Elementary School. Through this comprehensive approach, the study seeks to contribute not only to the improvement of educational outcomes in the school but also to the broader understanding of literacy-related issues in similar rural communities across the country.

Research objectives

Generally, the study assessed the challenges of literacy among students at Tabugon Elementary School using a Participatory Rapid Rural Appraisal (PRRA) approach.

Specifically sought to answer the following objectives:

1. To identify and analyze the key challenges affecting students' literacy at Tabugon Elementary School through the Participatory Rapid Rural Appraisal (PRRA) approach.
2. To propose Literacy Enhancement and Assistance Program (LEAP) an effective intervention program, informed by the research findings, to improve literacy outcomes and address the identified challenges faced by students at Tabugon Elementary School.

Aimed of study is to assess literacy challenges among students at Tabugon Elementary School using a Participatory Rapid Rural Appraisal (PRRA) approach and to propose an effective intervention program based on the research findings.

■ METHODOLOGY

The research study utilized a descriptive-exploratory research design, with exploratory research aimed at testing feasibility and gaining an understanding of new topics, while descriptive research provided detailed accounts and descriptions of phenomena (DeCarlo, 2018). For the Focus Group Discussion (FGD) and Participatory Rapid Rural Appraisal (PRRA), a purposive selection method was applied, choosing fifteen (15) representative participants from various sectors within the community (Hennink and leavy, 2014). PRRA, as described by Young (n.d.), actively involved local communities in research and development, emphasizing community participation in data collection, analysis, and decision-making processes to understand their needs and strengths more effectively. This approach ensured contextually relevant and sustainable development interventions, giving communities a sense of ownership and agency over the research outcomes. The FGD, an interactive discussion guided by a moderator, was conducted in a safe environment, allowing participants to freely express their ideas and views. The chosen participants for the FGD and PRRA included elementary and secondary teachers, elderly individuals, youth representatives, members from the agricultural sector, stakeholders from the business community, and barangay officials, ensuring a diverse and comprehensive perspective.

The purposive selection process aimed to capture a wide range of viewpoints and experiences to effectively address the research objectives. To achieve the first research objective, the PRRA approach was employed, actively engaging with the selected community members through a multi-stakeholder participatory process that facilitated group discussions, individual interviews, and a series of interviews with teachers. This comprehensive and inclusive methodology allowed for a holistic understanding of the challenges faced by the community, particularly focusing on the issue of low literacy levels among students at Tabugon Elementary School. Community members were encouraged to share their experiences, insights, and concerns regarding literacy challenges faced by students at Tabugon Elementary School. Group

discussions allowed for collective brainstorming and the identification of key issues that may not have been apparent from individual perspectives, providing a comprehensive understanding of the challenges from different vantage points within the community.

To address the second research objective, a comprehensive and exploratory data collection process was implemented. The research team conducted a series of interviews with teachers to understand the factors contributing to low literacy levels among students. The teachers' insights were crucial in providing a deeper understanding of the challenges faced by students in the classroom environment. Furthermore, the research team conducted surveys and health assessments to evaluate the prevalence of malnutrition and its impact on students' learning capabilities. Access to reading materials and resources outside of school was assessed through discussions with local organizations and stakeholders, without the need for classroom observations. Data on students' exposure to reading materials and resources, including the availability of community libraries, was gathered through community visits and discussions with relevant stakeholders.

For the third research objective, the data collected through the PRRA approach and interviews with teachers were thoroughly analyzed and synthesized. The research team identified patterns, themes, and interconnections among the challenges and contributing factors to develop a comprehensive understanding of the literacy landscape at Tabugon Elementary School. Based on the evidence-based findings, the research team engaged in collaborative discussions with stakeholders, including teachers, parents, school administrators, and local community members, to explore potential intervention strategies. These discussions aimed to ensure that proposed strategies were contextually relevant, feasible, and culturally appropriate, considering the unique socio-economic realities of Barangay Tabugon and the Philippine context.

The proposed intervention strategies were carefully crafted to address the identified challenges effectively, with a focus on enhancing parental involvement, improving nutrition programs, optimizing teacher-pupil ratios, enhancing reading intervention initiatives, and expanding access to

reading materials and community resources. By aligning the research findings with the experiences and perspectives of the community and teachers, the research team aimed to foster a sense of ownership and active participation in the implementation of the proposed intervention strategies. This collaborative approach sought to empower the community to take the lead in creating sustainable and impactful improvements in literacy outcomes for students at Tabugon Elementary School.

Framework

The conceptual framework revolved around the proposed Literacy Enhancement and Assistance Program (LEAP) *see on figure 1 below*, designed to address the key challenges and contributing factors related to literacy issues among students at public schools at Tabugon Sta. Elena Camarines Norte, Philippines. The key challenges identified in the study encompassed low reading comprehension, limited access to reading materials, inadequate teacher-pupil ratio, and potential malnutrition, all of which significantly impacted students' learning capabilities and overall literacy outcomes.

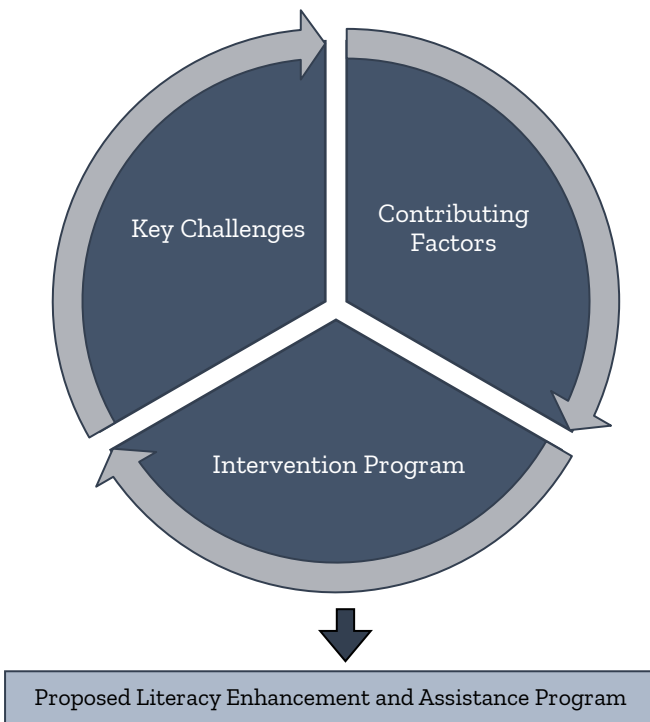


Figure 1. Conceptual Paradigm

Participatory rapid rural appraisal approach

To effectively tackle these challenges, LEAP incorporated a range of evidence-based intervention strategies. The program emphasized the importance of parental involvement through workshops and awareness programs, aiming to foster a supportive learning environment at home and encourage parents to play an active role in their children's literacy development.

LEAP also focused on enhancing nutrition programs to improve students' overall health and well-being, recognizing the critical link between nutrition and learning outcomes. By optimizing teacher-pupil ratios, the program sought to provide students with more individualized attention and support, thereby promoting improved literacy skills and academic performance. Additionally, LEAP proposed the implementation of evidence-based reading intervention initiatives, targeting specific areas of improvement and providing tailored support to students facing challenges in their literacy journey. The program further aimed to expand access to reading materials and community resources, creating a more conducive learning environment both within the school and the broader community.

The interconnectedness of these components in the conceptual framework underscored the holistic approach taken by LEAP in addressing literacy challenges comprehensively. By identifying key challenges, exploring contributing factors, and proposing targeted interventions, the program sought to empower students, teachers, parents, and stakeholders to actively participate in the improvement of literacy outcomes.

LEAP's participatory nature ensured that the perspectives and experiences of the local community were integrated into the program's design and implementation, further enhancing its relevance and effectiveness. Ultimately, the study's conceptual framework emphasized LEAP's role as a comprehensive and structured guide, facilitating exploration, understanding, and resolution of the literacy issues faced by students at Tabugon Elementary School, including those in secondary education. By addressing these challenges through the LEAP initiative, the study aspired to contribute

significantly to improved educational outcomes and literacy levels within the community.

■ RESULTS AND DISCUSSIONS

Understanding the root causes of low literacy levels: a comprehensive

Examination of Contributing Factors

The study conducted in Barangay Tabugon, Sta. Elena, Camarines Norte, unveiled the top three critical challenges confronting the community: Health, Education, and Livelihood which also mentioned in the National Economic and Development Authority (NEDA) and [UNICEF Philippines \(2018\)](#). Within these areas, the Education sector emerged as a focal point, with a glaring issue being the distressingly low levels of literacy and numeracy among students attending Tabugon Elementary School. The study's findings revealed a significant incidence of struggling readers, which correlated with difficulties in numeracy skills, leading to poor reading comprehension, reduced academic engagement, and an overall decline in functional performance heavily reliant on essential reading and mathematical abilities. This concerning situation underscored the urgent necessity for interventions that target the literacy crisis within the school and the broader community.

Table 1 below succinctly outlines the qualitative findings derived from the study, illuminating the specific challenges prevalent in the Education sector. It underscores the paramount importance of addressing the issue of low literacy and numeracy levels to enhance students' academic achievements and overall development. Recognizing the gravity of this problem, the research advocated for focused and effective strategies to empower students with improved reading and mathematical skills, ensuring they receive the necessary support to excel in their educational journey. By comprehensively tackling this critical concern in Education, along with the challenges in Health and Livelihood, the community of Tabugon can collaboratively work towards fostering a better quality of life and a brighter future for all its residents.

The study conducted in Barangay Tabugon, Sta. Elena, Camarines Norte, identified significant challenges in Health, Education, and Livelihood,

echoing concerns raised by the National Economic and Development Authority (NEDA) and UNICEF Philippines (2018). Among these challenges, Education took center stage, with a distressing issue of low literacy and numeracy levels among students at Tabugon Elementary School. The study's findings underscored the urgency of addressing this crisis, given its profound impact on students' academic engagement and functional performance, closely tied to essential reading and mathematical abilities. It's worth noting that reading comprehension is also essential for learning the application and concepts of mathematics. Consequently, these findings will surely be addressed in the proposed LEAP program of the study.

Table 1. Factors contributing to low literacy levels

Factors contributing to low literacy levels	Qualitative findings
1. Lack of Parental Involvement	Insufficient support and involvement from parents or guardians negatively impact students' learning development.
2. High Incidence of Malnutrition	The prevalence of malnutrition in the community significantly affects students' learning and cognitive abilities.
3. Unbalanced Teacher-Pupil Ratio	The disproportionate number of students per teacher hinders personalized attention and support for struggling learners.
4. Inadequate Reading and numeracy Intervention Program	The school's existing numeracy and reading intervention program appears insufficient in addressing the specific needs of struggling learners.
5. Lack of Exposure to Reading Materials	Limited access to reading materials and resources outside of school hampers the students' reading practice and exposure to diverse texts.

These educational challenges are interwoven with broader socio-economic issues affecting Filipino children, including high poverty rates (31.4% living below the basic needs' poverty line), rising teen fertility rates, and stunting, particularly prevalent among the poorest households. The study touched on Education resonates with UNICEF's concerns,

highlighting complex barriers to children's rights realization.

Additionally, the study sheds light on the pressing issue of children aged 5-15 being out of school, emphasizing the need to remove educational barriers. In response, the proposed Literacy Enhancement and Assistance Program (LEAP) gains significance, aiming to empower students and the community and improve their quality of life. This research complements the larger narrative of socio-economic challenges in the Philippines and the crucial role of education in addressing them.

Insufficient support and involvement from parents or guardians negatively impact students' learning development. However, there are other ways in which the school administration can address this concern with parents, such as by simply informing them of strategies that may help their students focus on studying. Parents should be aware that giving their child time to study and reducing their household chores when they are busy working on assignments can be a big help. These findings align with [Jabar's \(2021\)](#) research, which delves into parental involvement in Philippine public elementary education, uncovering unique strategies employed by Filipino parents due to economic constraints. These indirect involvement strategies, including exempting children from household chores and fostering quality family relationships, have far-reaching effects on children's educational outcomes, emphasizing their relevance in future quantitative studies.

Moreover, [Colicol and Colicol-Rodriguez \(2023\)](#)'s ethnographic study delves into the impact of the COVID-19 pandemic on education, with a particular focus on rural areas. This study underscores the influence of social factors like the socioeconomic impact of COVID-19, the digital divide, school location, and parental education. It emphasizes the crucial role of teacher agency in responding to policies such as the Philippine Basic Education-Learning Continuity Plan (BE-LCP), where teachers recommend strategies such as monitoring learning outcomes and supporting home-based learning to address pandemic-induced challenges. These insights underscore the need for collaborative efforts between parents and teachers to overcome multifaceted educational challenges and ensure the holistic development of Filipino students.

Furthermore, the PRRA revealed that malnutrition is the most prevalent issue in the community, with teachers identifying malnourished students as those categorized as slow learners. The study concludes that malnutrition significantly affects students' learning and cognitive abilities. This finding aligns with [Warsito et al.'s \(2012\)](#) study on preschool-age children in West Java, which demonstrates that psychosocial stimulation, participation in early childhood education, and nutritional status significantly influence cognitive development.

[Bustos-Orosa \(2022\)](#) highlighted the imbalance in curriculum activation and the challenging teacher-pupil ratio, which often exceeds 1:50, leading to teacher work overload. The study also revealed that this high student-to-teacher ratio obstructs personalized attention and support for struggling learners, this persistent issue requires urgent resolution for the sake of achieving quality education in the country.

Moreover, the inadequacy of the numeracy and reading intervention program in addressing the specific needs of struggling learners is compounded by other issues within the Philippine education sector. This is directly linked to the overwhelming workloads placed upon public school teachers. As highlighted by [David et al. \(2019\)](#), educators in public schools bear numerous supplementary administrative and student support responsibilities in addition to their standard teaching duties mandated by the Magna Carta for Public School Teachers. These include participating in workshops and training sessions, as well as implementing various government initiatives such as mass immunizations, community mapping, conditional cash transfers, deworming programs, feeding programs, population censuses, anti-drug campaigns, and election-related tasks, among others. These added responsibilities significantly reduce the time available for actual teaching, detrimentally affecting the overall quality of education in the Philippines. Consequently, the government must allocate additional resources and staff to reduce teacher workloads, enabling more personalized attention to struggling students. Additionally, the curriculum should be enhanced with tailored numeracy and literacy programs, including early assessment and intervention. These

recommendations will be incorporated into the developing projects under the LEAP Program.

Literacy enhancement and assistance program (LEAP): proposed intervention flagship program

The findings highlight the pressing need for intervention strategies to improve literacy levels among students at Tabugon Elementary School. The study's recommendations underscore the urgent need for interventions to address the low literacy levels among students. The findings make it evident that a multifaceted approach is necessary to tackle the identified challenges comprehensively. In response to these findings, the proposed Literacy Enhancement and Assistance Program (LEAP) emerges as a comprehensive and targeted initiative aimed at empowering students and the community to enhance literacy outcomes and foster a supportive learning environment. The LEAP Program's objectives are as follows:

1. **Enhance Parental Involvement:** The LEAP Program aims to develop initiatives that actively engage parents or guardians in their children's literacy journey, providing them with the tools and guidance to support their reading development at home. By establishing a strong partnership between the school and parents, the program seeks to ensure students receive consistent and well-rounded support in their reading journey.

2. **Improve Nutrition Programs:** Addressing malnutrition issues in the community is a critical aspect of the LEAP Program. By collaborating with health authorities and community organizations, the program endeavors to ensure students have access to proper nutrition, which is fundamental for their cognitive development and academic success.

3. **Optimize Teacher-Pupil Ratio:** The LEAP Program recognizes the significance of reducing the teacher-pupil ratio to provide personalized attention to struggling readers. The program aims to hire additional qualified teachers or implement measures to reduce class sizes, enabling educators to cater to individual student needs and foster a conducive learning environment.

4. **Implement Targeted Reading Interventions:** The LEAP Program prioritizes enhancing the existing reading intervention programs within the school to meet the specific needs of struggling readers. By revising and implementing effective intervention

strategies tailored to each student's unique learning styles and requirements, the program aims to improve students' reading proficiency.

5. **Expand Access to Reading Materials and Community Resources:** The LEAP Program places significant emphasis on expanding access to reading materials to nurture students' reading practice and exposure to diverse texts. Establishing community libraries and organizing book drives are integral components of the program to promote a culture of reading and provide students with a wealth of resources beyond the confines of the school.

By incorporating the objectives of the LEAP Program, the study's proposed intervention strategies are structured to create a synergistic and transformative impact on addressing the literacy challenges at Tabugon Elementary School. Through the implementation of LEAP, the school and community can collaboratively work towards fostering a better quality of life and a brighter future for all its residents, with a renewed commitment to improving education, health, and livelihood.

■ CONCLUSION

The unearthed critical challenges in Health, Education, and Livelihood, with Education confronting distressingly low literacy and numeracy levels. Qualitative findings pinpointed five key factors: lack of parental involvement, malnutrition, unbalanced teacher-pupil ratio, inadequate reading intervention, and limited access to reading materials. To tackle these issues, the proposed Literacy Enhancement and Assistance Program (LEAP) seeks to empower students and the community through targeted interventions, enhancing parental involvement, improving nutrition programs, optimizing teacher-pupil ratios, implementing targeted reading initiatives, and expanding access to reading materials. This study's insights guide educators and policymakers striving to improve literacy outcomes and enhance the quality of life for residents in Tabugon and similar Philippine communities. The examination of educational challenges also underscores the importance of addressing socio-economic disparities, fostering parental involvement, mitigating the impact of the

COVID-19 pandemic, and reducing the supplementary responsibilities burdening public school teachers. The LEAP program represents a promising avenue for addressing these multifaceted issues, provided there's collaborative effort among parents, teachers, and policymakers to remove barriers to quality education, ultimately nurturing a brighter future for Filipino students.

Recommendation


Further research should assess the long-term impact and effectiveness of the proposed Literacy Enhancement and Assistance Program (LEAP) in addressing low literacy levels among students in Tabugon and similar communities. A longitudinal study can track the progress of LEAP participants over time, evaluating their academic achievements and reading proficiency. Additionally, a comparative study can identify the most effective intervention strategies within LEAP. Investigating community engagement's role in sustaining the program's impact would also be valuable. This research will contribute to evidence-based educational practices and support literacy initiatives in underserved areas of the Philippines.

DECLARATIONS

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Competing interests

The author declares that she has no known competing financial interests or personal

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