

Community Needs Assessment of Barangay Pinsao Proper: Basis for Outreach Program on Literacy

¹Michelle Ann P. Chomayag^{}, ²Marianne K. Basoyang^{}, ³Junamil C. Zamora^{}

University of Baguio

¹michelle.chomayag@e.ubaguio.edu, ²mariannebasoyang@e.ubaguio.edu, ³melzamora@e.ubaguio.edu

Article Details:

Received: 6 June 2026

Revised: 21 September 2026

Accepted: 29 September 2026

Published: 10 October 2026

Corresponding Email:

michelle.chomayag@e.ubaguio.edu

Recommended Citation:

Chomayag, M. A. P., Basoyang, M. K., & Zamora, J. C. (2026). Community Needs Assessment of Barangay Pinsao Proper: Basis for Outreach Program on Literacy. *The International Review of Multidisciplinary Research*, 1(13), 30-42. <https://doi.org/10.67167/vertex.599>

Index Terms:

Literacy, Needs Assessment, Community Outreach, Sustainable Development, Education Access, SDG 4, SDG 10

Abstract. Literacy is a fundamental foundation for sustainable development and social inclusion. However, despite national policies and programs to promote literacy, communities like Barangay Pinsao Proper in Baguio City continue to face significant challenges in accessing quality learning opportunities across formal, non-formal, and informal domains. This study was conducted to assess the specific literacy needs of the barangay and to serve as the basis for a sustainable and inclusive outreach program by the University of Baguio. To gain a deeper understanding of the community's needs, the researchers employed a qualitative descriptive approach. This allowed for a thorough document analysis of barangay records and community monitoring systems. These sources were complemented by semi-structured interviews and focus group interview with residents representing various age groups, occupations, and educational backgrounds. Results revealed key issues such as a high number of non-readers, low participation in vocational training, lack of literacy resources, and barriers related to poverty, digital access, and psychosocial factors. Based on these findings, the researchers proposed a three-year development plan that addresses the community's needs through targeted programs including digital literacy, reading and numeracy tutorials, adult education, mental health awareness, and vocational training. The study emphasizes the need for collaborative, community-based interventions that contribute to achieving Sustainable Development Goals, particularly SDG 4 (Quality Education) and SDG 10 (Reduced Inequalities), further offers a model for similar efforts in other underserved communities.

Introduction

Literacy is a fundamental human right and a key driver of sustainable development. As UNESCO (2020) notes, it empowers individuals to improve their lives and strengthens social inclusion and civic participation.

In the Philippines, literacy is central to national development, reflected in initiatives like the K to 12 Basic Education Program. Despite progress, challenges remain in marginalized communities with limited access to quality education. To address these gaps, the Department of Education (DepEd) implements programs such as the Alternative Learning System (ALS), "Read to Learn," and "Brigada Pagbasa," alongside partnerships with NGOs and local institutions. Efforts by groups like the Literacy Coordinating Council, Tahanan ng Pag-asa, and the Baguio City Public Library, through workshops, digital literacy programs, and community campaigns, further support inclusive literacy development.

Barangay Pinsao Proper, a community in Baguio City, faces unique literacy challenges. The socio-economic diversity and varying levels of access to educational resources necessitate a targeted approach to improving literacy. The University of Baguio's commitment to community engagement through research and outreach programs aligns with the local needs of Pinsao Proper, focusing on enhancing literacy across formal, non-formal, and informal domains. Hence, this study addresses the following objectives:

1. Determine the socio-economic characteristics of the residents of Barangay Pinsao Proper relating to literacy.

2. Identify challenges which the community residents have been experiencing in terms of literacy in formal, non-formal, and informal domains.
3. Identify perceived literacy needs of Barangay Pinsao Proper residents in formal, non-formal, and informal domains.
4. Design sustainable outreach and extension programs that would address the identified literacy needs.

Literature Review

Community extension is a crucial program organized by schools to contribute to the development of communities within their areas. Since schools are centers of learning, they can best serve the surrounding communities by supplementing their educational and survival needs (Garay et al., 2021). Patalinghug et al. (2022) further argues that for Higher Education Institutions (HEIs) to perform their community service roles effectively, partnerships are essential. A community extension office enables students, faculty, and staff to contribute to community involvement, sharing resources and skills. These efforts promote the well-being and growth of the community through collaboration and compassion.

Literacy plays an essential role in facilitating the transition toward a more sustainable and peaceful world. Promoting literacy empowers individuals with enhanced skills and knowledge, enabling them to address complex issues related to sustainability, climate change, and social justice. Literate individuals are better equipped to make informed decisions that balance economic, social, and environmental factors, fostering a shift toward sustainable and environmentally conscious lifestyles (Nasreen et al., 2024).

The educational landscape continues to evolve, driven by technological advancements that have given rise to online platforms and digital tools, thus enabling the implementation of holistic education that nurtures the intellectual, social, emotional, and creative development of individuals. This approach promotes collaboration, problem-solving, lifelong learning, and critical thinking (Santos et al., 2020).

Moreover, needs assessments serve as a vital step in identifying the specific requirements of target populations within both community and organizational contexts, covering areas such as health, education, and employment. Borbon (2020) emphasizes that a thorough assessment of community needs lays the foundation for effective program implementation, helping create sustainable community extension services. Santilli et al. (2016) advocate for the continued use of needs assessments as a strategic tool for guiding community engagement, ensuring proactive responses to the evolving challenges and demands of local communities.

The importance of needs assessments is also emphasized by the United Nations Commission on Human Rights (UNCHR, 2016), which states that such assessments involve systematically gathering and analyzing information on the needs, conditions, and capacities of individuals from various demographic groups. These assessments must be conducted with the active involvement of community members to ensure that services meet their actual needs.

Recent studies have also focused on the significance of needs assessments in areas beyond general education. For example, in sustainability literacy, assessments of students' knowledge and attitudes in China revealed a high level of awareness related to environmental sustainability, underlining the importance of integrating sustainability topics into education (Chen et al., 2022).

Furthermore, in the area of food access and nutrition, needs assessments have shown the vital role of extension educators in improving nutrition literacy in rural communities. These assessments identify barriers to healthy food access and help shape programs that foster community resilience and food security (Sanders et al., 2023). Additionally, addressing barriers to the adoption of sustainable practices, such as financial and perceived risks, through targeted training has been recognized as crucial in enhancing the effectiveness of extension programs (Lamm et al., 2023).

Lastly, needs assessments also play a significant role in enhancing community trust and credibility, particularly in programs like vaccine education. These assessments ensure that programs are tailored to meet community needs while maintaining trust and professional credibility, which is crucial for the success of such initiatives (Austin et al., 2024). By identifying specific community needs and barriers, these assessments enable the development of targeted, effective programs that promote sustainable development and enhance community resilience.

Methodology

Research Design

The study used a qualitative descriptive design to examine the literacy needs of Barangay Pinsao Proper. Data were gathered through document analysis of barangay records, including the Barangay Records Automation System (BRAMS), Barangay Livability and Development Plan, Family Risk Assessment Survey, and Community-Based Monitoring System (CBMS). These sources provided demographic, socio-economic, and educational insights. To complement this, Focus Group Interviews (FGIs) with residents from varied backgrounds were conducted to explore challenges and perspectives on literacy and educational access. This approach offered a comprehensive understanding of the community's educational barriers and needs.

Participants of the Study

Two Focus Group Interviews (FGIs) were conducted with residents of Barangay Pinsao Proper to ensure representation from diverse community sectors. The first group included barangay officials and members of the Lupong Tagapamayapa, while the second group comprised senior citizens, solo parents, women's group representatives, a Barangay Peacekeeping Action Team (BPAT) member, and persons with disabilities (PWDs). This inclusive mix provided insights into accessibility challenges, gender-specific barriers, governance perspectives, and socio-economic constraints affecting literacy.

For data gathering, barangay-level records such as the Community-Based Monitoring System (CBMS), Barangay Livability and Development Plan, and Barangay Records Automation System (BRAMS) were analyzed to profile residents' demographic and socio-economic characteristics. The FGIs enriched this foundation by capturing lived experiences and perspectives, offering a holistic understanding of the community's literacy needs.

Data Gathering Tool

With the permission of Barangay Pinsao Proper, the researchers reviewed key records, including BRAMS, the Barangay Livability and Development Plan, the Family Risk Assessment Survey, and CBMS, to contextualize the community's socio-economic and educational conditions. To validate these findings, a Focus Group Interview was conducted with participants, documented with consent, and supplemented by attendance at the Barangay Development Plan session. Semi-structured interviews further explored literacy needs across formal, non-formal, and informal education. The interview guide focused on four themes; (1) literacy concerns, (2) existing programs, (3) challenges in implementation, and (4) potential future initiatives.

Data Gathering Procedure

The researchers followed the University of Baguio's Research Innovation, Extension, and Community Outreach procedures, ensuring adherence to ethical standards, proper data handling, and validated tools. Coordination with the Barangay Council was formalized through an official communication letter, and informed consent was obtained from all participants to guarantee confidentiality and voluntary participation. Interviews were recorded, transcribed, and cross-checked against audio files to ensure accuracy. This validation process minimized bias and strengthened the credibility of the data analysis.

Data Analysis

Interviews were audio-recorded, transcribed verbatim, and analyzed using Braun and Clarke's (2006) six-phase thematic framework. Open and axial coding were applied to identify and organize ideas into broader themes. Four key themes emerged: (1) Access and Participation, (2) Community Efforts, (3) Community Engagement, and (4) Innovative Approaches, each highlighting barriers, enablers, and aspirations related to literacy. Validation with barangay stakeholders confirmed the reliability of these findings, while triangulation with barangay records strengthened the accuracy and credibility of the results.

Research Ethics

Ethical standards were strictly observed, with permission obtained from barangay officials and informed consent secured from all participants. Confidentiality and anonymity were maintained through secure data handling, restricted access to raw data, and careful anonymization. Participants were free to withdraw at any time, ensuring respect for autonomy. Data privacy was protected through secure storage, anonymized reporting, and proper disposal of documents, physical files were shredded and digital records permanently deleted after analysis. To ensure transparency, findings were transcribed, summarized, and presented in a feedback session with barangay officials and participants. A printed report was formally

handed to the Barangay Captain, and community feedback was incorporated into the validation process, reinforcing the collaborative nature of the study.

Disclosure of the usage of Artificial Intelligence

The researchers declared that this research was assisted by Copilot and Claude AI which was used in translating the transcribed interviews (from Ilocano/Tagalog to English) and improving the readability of the paper. All generated content from Copilot and Claude AI was critically reviewed by the researchers, and human oversight was observed to maintain the accuracy of the data as well as the integrity of the researchers. Also, Consensus AI was utilized in this study to gather relevant works of literature for corroboration.

Results and Discussion

Participants Demographic Information

The study began by profiling respondents to provide context for interpreting findings. A total of 3,521 residents of Barangay Pinsao Proper were included, with data analyzed by variables such as age, gender, schooling status, educational attainment, disability, occupation, and employment status. These profiles offered a clear picture of the community's literacy landscape and guided the development of relevant programs.

Table 1 presents the key demographic variables, sourced from the Barangay Records Automation System (BRAMS), which systematically documented residents' backgrounds across all puroks.

Schooling	Frequency	Percentage %
Graduate	1004	28.50
Undergraduate	526	14.90
In school	931	26.40
Out of school	96	2.70
Not yet in school	197	5.60
Total	3521	100.00
Highest Educational Attainment	Frequency	Percentage %
Pre school		2.10
Elementary	465	13.20
Junior High School	305	8.70
Senior High School	215	6.10
High School	467	13.30
College	1098	31.20
Vocational	220	6.20
Post graduate	100	2.80
Total	3521	100.00
Disability	Frequency	Percentage %
None	2000	56.80
Visual Disability	4	0.10
Intellectual disability	7	0.20
Mental /psychosocial disability	11	0.30
Disability due to chronic illness	12	0.30
Orthopedic Disability/Visua Disability	10	0.30
Communication Disability	321	9.10
Total	3520	100.0
Occupation	Frequency	Percentage %
Managers	6	0.20
Professionals	265	7.50
Technicians and Associate Professionals	7	0.20
Clerical Support Workers	33	0.90
Service and Sales Workers	1115	31.70
Skilled Agricultural, Forestry and Fisher Workers	62	1.80
Crafts and Related Trade Workers	69	2.00
Plant and Machine Operators, and Assemblers	11	0.30
Elementary Occupations	162	4.60

Others	1791	50.90
Total	3521	100.0
Employment Status	Frequency	Percentage %
Permanent	269	7.60
Contractual	156	4.40
Temporary	66	1.90
Self-employed	302	8.60
Retired	36	1.00
Total	3521	100.0
Gender	Frequency	Percentage %
Male	1719	48.80
Female	1765	50.10
Total	3521	100.00

Table 1. Socio-demographic information

Gender

The survey sample, comprising 48.8% male respondents (1,719 individuals), 50.1% female respondents (1,765 individuals), and 0.9% who did not specify their gender (37 individuals), suggests a well-balanced and representative demographic distribution. The near-equal gender representation ensures that the diverse perspectives and experiences of both male and female respondents are included, which is vital for a comprehensive analysis. The slight majority of female respondents guarantees that their views and needs are adequately considered, contributing to a deeper understanding of gender-specific issues. The small percentage of respondents who did not specify their gender may reflect privacy concerns, gender diversity, or non-binary identities, underscoring the importance of inclusive data collection methods that respect and acknowledge all gender identities.

Schooling

The schooling status of respondents highlights their educational engagement. About 28.5% have completed education, while 14.9% are undergraduates and 26.4% are currently enrolled, reflecting a strong student presence. A small group (2.7%) are out of school, often due to financial or access issues, and 5.6% are young children not yet enrolled. Notably, 21.8% did not disclose their status, suggesting the need for clearer data collection.

These data mirror findings in marginalized communities. Studies by Ormilla & Baccal (2021) emphasize the role of Alternative Learning Systems (ALS) in supporting out-of-school youth, while Gatcho et al. (2024) highlight barangay-based interventions to encourage re-entry. Toquero (2020) further notes that low schooling participation increases vulnerability during disruptions like the COVID-19 pandemic, underscoring the importance of community-driven literacy programs.

Highest Educational Attainment

The respondents displayed varied levels of educational attainment. About 31.2% hold college degrees, 13.3% completed high school, and 13.2% finished elementary education. Vocational training was pursued by 6.2%, while 2.8% attained postgraduate degrees. A small group (2.5%) are young children not yet in school, and 13.9% did not specify their attainment. These results highlight both strengths in higher education and areas needing support through continuing and alternative learning opportunities.

The study of Napanoy & Peckley (2020) linked low attainment in indigenous communities to weaker literacy and employment outcomes. William et al. (2025) emphasized socio-economic and parental education as key influences on achievement, while Llenares & Deocaris (2018) underscored the importance of vocational and lifelong learning programs to uplift adult education levels.

Disability

Disability data revealed important insights into health and accessibility needs. Most respondents (56.8%) reported no disabilities, while 9.1% had communication impairments requiring support such as speech therapy or assistive devices. Small percentages reported visual (0.1%), intellectual (0.2%), psychosocial (0.3%), chronic illness-related (0.3%), and orthopedic (0.3%) disabilities, with some experiencing multiple conditions that demand integrated services.

Remarkably, 32.7% did not disclose disability status, suggesting possible stigma or privacy concerns. This highlights the need for more inclusive and confidential data collection to ensure accurate reporting and better inform policies supporting persons with disabilities (PWDs).

Occupation

Service and sales workers make up the largest group (31.7%), reflecting the barangay's reliance on small businesses and retail. Professionals such as teachers, nurses, and engineers account for 7.5%, showing the presence of skilled talent, while only 0.2% work as technicians and a few in clerical roles. Manual laborers comprise 4.6%, highlighting the range of occupations sustaining the community.

The "Others" category (50.9%) likely represents freelance, gig-based, and informal work, underscoring community resilience in finding income sources despite limited formal employment. This aligns with Albert, Santos, & Vizmanos (2018), who noted the prevalence of informal jobs in the Philippines, and the ILO (2018), which emphasized their commonality in developing areas with limited access to formal contracts or education.

Employment Status

In the context of the resident's employment status, the data reveals both opportunity and uncertainty. Only 7.6% of respondents have permanent jobs, suggesting that formal, long-term employment is relatively rare. This could be due to a lack of job openings, education barriers, or the nature of the local economy, which leans heavily toward informal and service-based work. Meanwhile, 8.6% are self-employed, showing that many residents have running their own small businesses, selling goods, or offering services from home. This speaks to the entrepreneurial spirit in the community, where people turn their skills into sources of income, even in the absence of traditional job offers.

Other respondents also hold contractual or temporary positions, which may provide short-term income but come without the security of benefits or job stability. Still, the most eye-opening detail is the 75.7% who did not specify their employment status. This could perhaps show that some of the residents were doing irregular work, juggling multiple gigs, or unsure how to classify their current employment status. It could also point to challenges in how data is collected, or even reflect feelings of insecurity about their work status.

The data on occupation and employment status reveal a meaningful and complex relationship. Many individuals engaged in informal or gig-based work may not consider themselves formally "employed," even though they contribute significantly to the local economy through daily labor and services. This disconnect often leads to underreporting and results in an incomplete picture of the community's actual workforce. As Ghosh (2020) emphasizes that informal workers often remain invisible within labor statistics and fall outside the scope of labor protections and social welfare programs. This invisibility not only limits their access to government support but also affects policy planning, which often prioritizes formally employed populations.

Challenges on Literacy

This study also aimed to identify the challenges faced by the residents of Barangay Pinsao Proper in terms of literacy based on the three types of education: Formal, Non-formal, and Informal Education. Thus, the participants were instructed to consider the three in their responses,

Formal Education, as explained to the residents, refers to structured, systematic learning provided by schools, colleges, and universities. It follows a prescribed curriculum, leads to certifications or degrees, and is delivered by trained educators. Examples include primary, secondary, and higher education (UNESCO, 2020).

Non-formal Education, on the other hand, occurs outside the traditional school system but still follows a structured approach. It encompasses skill-based training, adult literacy programs, workshops, and vocational courses that do not necessarily result in formal certification but still enhance knowledge and skills (European Commission, 2021).

Informal Education is unstructured and occurs naturally through daily life experiences, social interactions, and self-directed learning. This type of education includes learning from family, community, media, and personal experiences without a formal curriculum or instruction (OECD, 2020). After the analysis of data, however, there were no answers pertaining to informal education that emerged from the FGIs.

To explore the challenges encountered by the residents, the researchers utilized a semi-structured interview tool that served as guide in Focus Group Interview (FGI) involving several residents from different groups from Barangay Pinsao Proper. This method enabled the researchers to gather in-depth insights from different community perspectives, consistent

with best practices in participatory research (Bautista et al., 2022; Creswell & Poth, 2021). The questions centered on the problems related to literacy, the efforts of the barangay to respond to the identified problems, the challenges they encountered in the implementation of their literacy programs, suggestions that the barangay can do to respond to the problems on literacy and finally an identification of the resources that are needed to implement programs on literacy.

Theme 1: Access and Participation

Based on the focus interview conducted with key stakeholders in Barangay Pinsao Proper, including barangay officials, purok leaders, women and solo parent representatives, senior citizens, and members of the different sectors, several literacy-related challenges were identified as critical issues within both formal and non-formal education settings. One participant, identified as P2, expressed: “Ti problema nga makita nga inggana tadta ket existing ket dagijay non-readers nga ub-ubbing me ditoy,” (The problem that can be seen and still exists in our barangay is the presence of non-readers). He further emphasized: “Dagijay high school en nga han pay lang makabasa, ket isu rason nga ag-drop piman ket han en sumrek iij eskwelaan,” (Some high school students still do not know how to read, and that is why they tend to drop out of school). This sentiment was echoed by several other participants, indicating that literacy deficiencies contribute significantly to the school dropout rate and the growing number of out-of-school youth (OSY) in the barangay. According to the Department of Education's Philippine Informal Reading Inventory (Phil-IRI, 2019), many students across the country, particularly in socioeconomically disadvantaged areas, struggle with reading fluency and comprehension. Additionally, the Annual Poverty Indicators Survey (APIS), conducted by the Philippine Statistics Authority (2020), reported that one of the leading reasons cited by out-of-school youth for not attending school is a lack of personal interest, which is often linked to poor literacy skills. Moreover, P2 added: “Agsipud nangrugi ti pandemic, ket naging module amin, isu dijay nga han natutukan ti mamaestra dagijay ubing, sunga naapektuan piman ti panagbasa da,” (Since the onset of the COVID-19 pandemic, learning shifted to modules, which limited the teachers' ability to properly guide the students, thereby affecting their reading skills).

These findings reflect broader national trends, Magsambol (2022) reported that the Philippines is facing a “learning crisis,” where a significant number of Filipino students struggle with basic literacy skills, exacerbated by educational disruptions during the COVID-19 pandemic. Similarly, the World Bank (2021) indicated that approximately 90% of Filipino children at late primary age are considered “learning poor,” being unable to read and understand simple texts. Furthermore, the inconsistent availability of teachers for remedial classes was noted as a barrier to improving literacy rates.

In non-formal education, respondents observed less participation in TESDA trainings offered at the barangay level, with financial constraints and the need to prioritize work over education cited as primary reasons. Participant P3 shared: “Adda met piman ti TESDA trainings nga nais-issue ditoy barangay, kas kuma ti baking ken bartending. Ti problema lang ket bassit ti participants, awan ti ag-attend,” (There are TESDA trainings being offered in the barangay, such as baking and bartending, but the problem is the low number of participants, as very few attend). When asked about the reasons behind the low turnout, Participant P2 explained: “Ti maysa nga nakitak nga problema dita ket kurang ti information dissemination gamin. Uray nu maipost it social media, posters ken flyers, ket bassit latta met ti ag-attend,” (One issue I observed is the lack of proper information dissemination. Even if announcements are posted on social media, or through posters and flyers, only a few still participate). Participant P5 added another perspective, stating: “Maysa pay ket daytoy kina-competitiveness ti nagannak,” (Other reason was the attitude of being competitive) which refers to the mindset of some parents who prioritize academic competitiveness. He elaborated: “Mas kayat da nga dagijay annak da ket makaturpos ti kolehiyo, isu nga dagijay daduma piman ket han da pagan-anusan ti TESDA trainings, ta daytoy mentality tayo a Pilipino ket kayat tayo nga agturpos inggana kolehiyo,” (Parents prefer that their children finish college, so some do not prioritize enrolling in TESDA programs, as many Filipinos hold the belief that a college degree is the key to success.)

Other reasons raised included early marriage among out-of-school youth (OSY), as noted in the statement: “Dagijay out-of-school youth ket nagsipag-asawa dan,” (Some OSYs have already married, instead of pursuing training opportunities).

In addition, P5 reported that community members had specific requests to improve participation. These included: “Ti request da gamin ket mairaman iti weekends,” (“They prefer trainings to be held on weekends”), “Ken nu mabalin kanu, free training nga adda kuma ti allowance na,” (“They hope for free training programs with a financial allowance”), and “Within the barangay ti venue ti training. E awan met ti materials ditoy barangay. Awan met ti mausar nga equipment ta adda met amin ijay TESDA mismo, kasi masulit da nga apan ijay TESDA,” (They request the venue to be within the barangay, but the barangay lacks the materials and equipment needed for such training. These are only available at the TESDA office, which is why participants are encouraged to attend sessions there instead).

Theme 2: Community Efforts

Despite these challenges, Barangay Pinsao Proper has initiated several programs to address literacy concerns. These include reading tutorials or “Pagbasa Sessions,” collaborations with external organizations, counseling sessions, the

provision of Alternative Learning System (ALS) classes, and participation in the National Summer Camp. Participant P1 shared that, as an intervention to address concerns regarding children's inability to read, they had established reading tutorials targeting Grades 1 to 3 students. To quote: "Adda ti reading tutorials mi. Ti in-cater mi ket from Grades 1-3. Every Saturday daytoy, ma'am, kas pang-support mi ijay remedial classes," (We have reading tutorials. We cater to Grades 1-3 every Saturday as a form of support for the remedial classes). However, these reading tutorials only lasted for three consecutive Saturdays and eventually stopped due to the increasing responsibilities and projects within the barangay. Despite the children's willingness and availability to participate in the program, another challenge cited was the unavailability of teachers. As shared by P2: "Ken maysa, ma'am, problema met laeng ti schedule or availability dagitoy teachers ken parents tayo. Mainayun pay piman dagitoy school requirements ti ub-ubbing, ma'am," (One of the problems is the schedule or availability of both teachers and parents. The children also have a lot of school requirements). Additionally, the barangay faces pressing social issues, including family instability. One of the contributing factors to school dropouts is the impact of broken families on children's well-being. As P6 shared: "Dagitoy gamin daduma nga ubing, ma'am, ket produkto ti broken family. Broken-hearted dagijay nagannak da ket affected da. Isunga pati panagadal da ket affected met," (Some of these children come from broken families. Their parents are emotionally affected, and as a result, their children's studies are also negatively impacted).

These initiatives mirror national efforts led by agencies such as the Department of Education (DepEd, 2020), which promotes ALS as a means to reach marginalized groups, and TESDA programs which aim to provide skills training to out-of-school youth and adults. Furthermore, the barangay's collaboration with external organizations aligns with DSWD's community-driven development framework.

Theme 3: Community Engagement

However, several challenges hinder the successful implementation of these programs. One major challenge is the negative influence of social media, which was noted to reduce learners' attention spans, study motivation, and overall engagement. This finding is supported by Abocejo et al. (2022), who found that excessive social media use among Filipino adolescents is associated with lower academic performance. Socioeconomic issues, particularly financial constraints, were also reported as a major barrier. Nuqui and Cruz (2020) emphasized that socioeconomic status remains a strong predictor of educational participation, with many learners from marginalized communities prioritizing work over further education or training. Moreover, a lack of resources and limited literacy facilities in the barangay further impede program implementation. Bernardo et al. (2020) noted that resource gaps significantly affect the success of literacy initiatives, especially in rural and underserved areas.

Academic pressure was another significant concern. While educational achievement is encouraged, respondents observed that high expectations sometimes result in learner burnout, diminishing creativity and intrinsic motivation. This observation is supported by Guillasper et al. (2021), who discussed the mental health impacts of academic stress among Filipino students, particularly in the context of blended learning. Additionally, attendance issues were cited, with learners often absent due to conflicting work and family responsibilities. Palisbo and Maming (2021) found that non-traditional learners, such as those enrolled in ALS, require strong motivational interventions and flexible learning schedules to maintain participation.

Family-related issues, particularly broken family structures, were also identified as contributors to school dropouts and low literacy rates. Lastly, illiteracy among senior citizens remains a persistent issue.

In summary, the literacy situation in Barangay Pinsao Proper mirrors the broader educational challenges in the Philippines. Despite the presence of existing literacy initiatives, issues such as financial constraints, resource shortages, social media influence, high academic pressure, lack of family support, and limited facilities continue to hinder successful program implementation. Addressing these challenges requires a holistic, context-sensitive approach that includes increasing financial and infrastructural support, designing flexible and motivational learning programs, promoting family engagement, and expanding inclusive literacy initiatives across all age groups.

Theme 4: Innovative Approaches

Based on the interviews conducted, several activities were identified that could potentially strengthen literacy development in Barangay Pinsao Proper. These suggestions reflect a comprehensive and community-centered approach to addressing the educational needs of residents across all age groups, consistent with the understanding that community-based strategies are critical for sustainable educational development (UNESCO, 2022). One key recommendation was the promotion of computer and ICT literacy. Respondents emphasized the importance of equipping community members with basic digital skills, such as word processing, spreadsheet use, and navigation of online resources, to enhance their educational and professional competencies in an increasingly digital environment. To quote, P2 suggested, "Ti maisuggest

mi, ma'am, ket ti computer literacy kuma" (What we would suggest, ma'am, is computer literacy). She further added, "Jay basic kuma, ma'am, jay panag-encode ijay Word ken Excel. Kasi kami nga BPATs, han mi talaga ammo ti ag-encode ijay computer, maski ag-print. Isunga dagijay reports mi, isurat mi laeng, tas isuda ti mangi-encode," (Just the basics, ma'am, like encoding in Word and Excel. Because we, the BPATs, really do not know how to encode or even print using the computer. So for our reports, we just wrote them down and have someone else encode them for us). This aligns with findings from the International Literacy Association (2020), which stresses that digital literacy is now integral to functional literacy, particularly as global societies become more interconnected. In the local context, a study by Tumibay et al. (2021) on Filipino higher education during the pandemic highlighted the crucial need for digital literacy among all learners to ensure educational continuity and employability.

Moreover, the barangay also suggested several resources that would help address the identified challenges related to literacy. These resources include computer sets and books, which are essential for their planned Reading Center. To quote, P2 suggested, "Resources, ma'am, kas kuma computer sets ken books para ijay Reading Center ti barangay," (Resources such as computer sets and books for the barangay's Reading Center). Furthermore, the organization of community-based workshops and skills trainings was also proposed. As shared by P2, "Ken trainers, ma'am, para ti naduma-duma nga activities or skills trainings para ti umili ti Pinsao Proper," (We also need trainers for various activities or skills trainings for the residents of Pinsao Proper). These activities would focus on improving literacy and numeracy skills, while parenting workshops were identified as necessary to educate parents on effective and responsible parenting practices. Research by the National Literacy Trust (2018) demonstrated that family literacy interventions, where parents and children learn together, significantly improve children's language and literacy outcomes. In the Philippines, David et al. (2021) emphasized that community-driven literacy programs are key to closing learning gaps, particularly in underserved areas.

In addition, parental and child counseling sessions were recommended to address both emotional and educational challenges, promoting a more supportive environment for learning within families. The importance of socio-emotional support is corroborated by Darling-Hammond et al. (2019), who argue that positive family engagement and emotional support are crucial factors influencing children's academic success.

Recognizing the need for inclusive educational initiatives, the provision of adult education programs for senior citizens was strongly suggested. These programs aim to empower elderly residents who may not have had access to formal education, thereby fostering greater participation and protection for this sector of the population. UNESCO's Global Report on Adult Learning and Education (2022) stresses that adult literacy programs are vital for promoting equity, social inclusion, and active citizenship, especially among marginalized groups. Moreover, respondents also highlighted the importance of conducting educational campaigns to inform residents about relevant laws impacting education and literacy. These campaigns are intended to raise awareness of educational rights and responsibilities, thereby encouraging greater engagement and advocacy within the community.

Preserving cultural heritage emerged as another priority. Participants proposed cultural sensitivity training and traditional skills training, such as the use of indigenous instruments like gongs and solibaos, to promote respect for cultural traditions while integrating them into literacy development efforts. UNESCO (2003) highlighted that integrating indigenous knowledge systems into formal and informal education preserves cultural heritage and enhances the relevance of learning. Locally, Flores and Catacutan (2022) documented the positive impact of cultural integration into literacy programs among indigenous communities in the Philippines, noting improved engagement and retention rates.

Furthermore, the introduction of music classes, visual arts activities, and educational excursions (Lakbay Aral) for children was suggested to stimulate creativity, cognitive development, and experiential learning. Studies by Winner et al. (2013) found that participation in the arts fosters critical thinking, collaboration, and innovation skills, which are essential for lifelong learning and adaptability.

To address the challenges raised regarding technology and social issues, respondents advocated for social media education to promote responsible online behavior and teenage pregnancy awareness campaigns to educate adolescents about the consequences and prevention of early pregnancy. Research by O'Keeffe and Clarke-Pearson (2011) noted that proactive education on digital citizenship significantly reduces online risks among youth. Meanwhile, a study by Lagman et al. (2022) on teenage pregnancy in the Philippines emphasized the effectiveness of school and community-based awareness programs in reducing early pregnancies through better access to information and services. Another recommendation was the provision of reading and spelling tutorials to strengthen students' foundational language skills. The National Reading Panel (2000) asserts that explicit instruction in phonemic awareness, phonics, fluency, vocabulary, and text comprehension is fundamental to literacy acquisition. In the Philippine context, the Department of Education's (DepEd) Every Child a Reader Program underscores the importance of early intervention and regular reading tutorials to ensure reading proficiency among young learners. Vocational training for out-of-school youths (OSY), including basic electrical work, welding, and carpentry, was identified as a means of offering alternative career pathways and improving livelihood opportunities.

According to UNESCO-UNEVOC (2021), Technical and Vocational Education and Training (TVET) programs significantly enhance employability and are instrumental in reducing poverty among marginalized youth populations.

Finally, there was a strong call to prioritize mental health awareness initiatives. Information drives focusing on mental health issues and available support services were viewed as essential to promoting overall well-being and removing the stigma surrounding mental health within the community. The World Health Organization (WHO, 2022) has consistently advocated for mental health promotion as an integral component of holistic education, recognizing that learning outcomes are closely tied to students' emotional and psychological well-being.

These recommendations present a sustainable framework for improving literacy in Barangay Pinsao Proper. They reflect the community's desire to foster an environment that promotes education, cultural preservation, technological adaptability, emotional well-being, and lifelong learning, in alignment with global best practices and national development goals.

Proposed Three-year Sustainable Development Plan

PINSAO PROJECT: Promoting peace, investing in infrastructure, Nurturing Literacy, Supporting sustainable livelihoods, Advancing healthcare, and Opening opportunities for growth

The aim of this 3-year sustainable development program for Barangay Pinsao Proper is to help the adopted barangay acquire a Seal of Good Local Governance during the three-year partnership. This program has three phases of implementation. Year one is the implementation of programs related to foundation and awareness, year two is the implementation of programs and activities such as medical missions and others, and lastly, year three is the implementation of programs and activities related to evaluation and sustainability. Suggested programs and activities in this development program are initial actions to address the identified felt needs of the community and what transpired in the needs assessments conducted by three researches headed by the RIECO team.

Conclusion and Recommendations

The community profile of barangay Pinsao Proper shows a high percentage of participation in schooling and educational attainment, but attention should be given to residents with special needs on literacy such as persons with disabilities and mental and psychosocial disabilities. Interviews, on the other hand, revealed that there is an increasing rate of nonreaders and school dropouts among schoolchildren and low participation rate in government programs, such as TESDA, among those not attending school. This coincided with the identified literacy needs on the barangay in both non-formal and informal domains, such as digital literacy, counseling, inclusive education, music, culture and the arts, literacy and numeracy, vocational training and psychosocial and health awareness. There were no identified needs for the informal literacy domain. A 3-year development plan is designed to include identified needs of the barangay, in relation to the university's capacity to respond to such needs.

It is recommended that results of this study and the development plan be presented to the barangay officials for validation and feedback. The university should also disseminate the results to the identified schools who will respond to the needs listed in the development plan and encourage the inclusion of the activities in the plan to the workplans of each respective school. Further, fundraising efforts should be strengthened to help supplement the budget required in the implementation of the plan. This includes organizing activities that require registrations, sale of merchandise and partnering with companies who believe in the same cause.

Acknowledgement

The authors would like to thank the colleagues and institutions who provided guidance, feedback, and support throughout the conduct of this research and the preparation of this manuscript. Any remaining errors or omissions are the sole responsibility of the authors.

Funding

This study was funded by the University of Baguio, and the article processing charges (APC) will be covered by the University of Baguio.

Competing Interests Statement

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this article.

Data Availability Statement

Data supporting the findings of this study were collected directly from participants through Focus Group Interviews and barangay records review. These primary data are not publicly available due to confidentiality agreements with participants and local authorities but may be obtained from the corresponding author upon reasonable request.

References

- Abocejo, F. T., Fajardo, M. T. M., & Salamanca, K. G. (2022). Social media addiction and academic performance among college students in the Philippines. *Asia Pacific Journal of Multidisciplinary Research*, 10(2), 41–48. <https://doi.org/10.1080/15391523.2023.2196456>
- Abulencia, A. S., Sabado, M. A., & Flores, R. E. (2022). Inclusive education for persons with disabilities in the Philippines: Current state and future directions. *Asia Pacific Journal of Education, Arts and Sciences*, 9(1), 1–8. <https://doi.org/10.17509/ijcsne.v5i1.82690>
- Albert, J. R. G., Santos, A. G., & Vizmanos, J. F. (2018). *Defining and profiling the middle class* (PIDS Discussion Paper Series No. 2018-20). Philippine Institute for Development Studies. <https://pidswebs.pids.gov.ph/CDN/PUBLICATIONS/pidsdps1820.pdf>
- Bautista, J. R., Lin, T. T. C., & Theng, Y. L. (2022). The use of focus group discussions to explore community health perspectives: Strengths, challenges, and considerations. *International Journal of Qualitative Methods*, 21, 1–10. <https://doi.org/10.1177/16094069221101855>
- Bernardo, A. B. I., Salanga, M. G. C., & Aguas, J. M. (2020). Barriers to educational access in rural Philippines: A resource perspective. *International Journal of Educational Development*, 77, 102234. <https://doi.org/10.1016/j.ijedudev.2020.102234>
- Creswell, J. W., & Poth, C. N. (2021). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). SAGE Publications. <https://ebooks.umu.ac.ug/librarian/books-file/Qualitative%20Inquiry%20and%20Researc%20-%20John%20W.%20Creswell.pdf>
- Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B., & Osher, D. (2019). Implications for educational practice of the science of learning and development. *Applied Developmental Science*, 24(2), 97–140. <https://doi.org/10.1080/10888691.2018.1537791>
- David, C. C., Albert, J. R. G., Vizmanos, J. F. V., & Tuazon, J. A. M. (2021). *Measuring literacy among Filipinos during the pandemic*. Philippine Institute for Development Studies. <https://pidswebs.pids.gov.ph/CDN/PUBLICATIONS/pidspn2103.pdf>
- Department of Education. (2019). *Philippine Informal Reading Inventory (Phil-IRI) Manual of Administration 2018 Edition*. Bureau of Learning Delivery. <https://ia903103.us.archive.org/18/items/PhilIRIFullPackageV1/Phil-IRI%20Full%20Package%20v1.pdf>
- Department of Education (DepEd). (2020). *Alternative learning system: Reaching the unreached*. <https://www.deped.gov.ph>
- European Commission. (2021). *Adult learning and education in Europe: Key policy messages*. Publications Office of the European Union. <https://data.europa.eu/doi/10.2766/58754>
- Flores, J. C., & Catacutan, M. R. (2022). indigenous knowledge systems and practices: their enduring influence on the beliefs and daily lives of teachers. *Journal of Literacy Studies*, 13(2), 112–125. <https://doi.org/10.36713/epra22406>
- Garay, G. A., Verano, C. L. A., & Magistrado, I. B. (2021). Sustainability of the College of Arts and Sciences Community Extension Programs in Brgy. Masalipit, Bulacan: Basis for proposed enhancement program. *Journal of Human Resource and Sustainability Studies*, 9(1), 106–121. <https://doi.org/10.4236/jhrss.2021.91008>
- Gatcho, A. R. G., Manuel, J. P. G., & Hajan, B. H. (2024). No child left behind: Literacy challenges in the Philippines. *Frontiers in Education*, 9, Article 1349307. <https://doi.org/10.3389/educ.2024.1349307>
- Ghosh, J. (2020). Informal workers and the need for inclusive social protection. *United Nations Department of Economic and Social Affairs (UN DESA) Policy Brief No. 88*.
- Giummarra, M. J., Randjelovic, I., & O'Brien, L. (2022). Interventions for social and community participation for adults with intellectual disability, psychosocial disability or on the autism spectrum: An umbrella systematic review. *Frontiers in Rehabilitation Sciences*, 3, 935473. <https://doi.org/10.3389/fresc.2022.935473>
- Guillasper, J. N., Soriano, G. P., & Medallon, M. C. (2021). Mental health, academic stress, coping mechanisms, and coping effectiveness among college students during the COVID-19 pandemic. *Journal of Loss and Trauma*, 26(8), 662–673. <https://doi.org/10.21203/rs.3.rs-2099501/v1>

- Hunt, X., Bradshaw, M., Vogel, S. L., Encalada, A. V., Eksteen, S., Schneider, M., Chunga, K., & Swartz, L. (2022). Community support for persons with disabilities in low- and middle-income countries: A scoping review. *International Journal of Environmental Research and Public Health*, 19(14), 8269. <https://doi.org/10.3390/ijerph19148269>
- International Labour Organization. (2018). *Women and men in the informal economy: A statistical picture* (3rd ed.). ILO. https://www.ilo.org/global/publications/books/WCMS_626831/lang-en/index.htm
- Lagman, J. D., Flores, M. J., & Ramirez, P. R. (2022). Addressing adolescent pregnancy in the Philippines: Gaps and interventions. *Asian Pacific Journal of Public Health*, 34(1), 49–56. <https://doi.org/10.1177/10105395211047265>
- Llenares, I. I., & Deocarís, C. C. (2018). Measuring the impact of a community extension program in the Philippines. *Malaysian Journal of Learning and Instruction*, 15(1), 33–53. <https://e-journal.uum.edu.my/index.php/mjli/article/download/mjli2018.15.1.2/865>
- Magsambol, B. (2022, August 3). The Philippines faces a learning crisis: What needs to be done? *Rappler*. <https://www.rappler.com/nation/analysis-philippines-learning-crisis-education/>
- Napanoy, J. B., & Peckley, M. K. (2020). Assessment literacy of public elementary school teachers in the indigenous communities in Northern Philippines. *Universal Journal of Educational Research*, 8(12A), 7619–7627. <https://www.researchgate.net/publication/346492399>
- Nasreen, S., Hasan, S., & Gul, R. (2024). Role of literacy & non-formal education in building a sustainable and peaceful society in Punjab, Pakistan. *Research Journal of Social Sciences and Economics Review*, 5(1), 16–24. [https://doi.org/10.36902/rjsser-vol5-iss1-2024\(16-24\)](https://doi.org/10.36902/rjsser-vol5-iss1-2024(16-24))
- National Literacy Trust. (2018). *The impact of family literacy programs*. <https://literacytrust.org.uk/research-services/research-reports/family-literacy-programmes/>
- National Reading Panel. (2000). *Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction*. National Institute of Child Health and Human Development. <https://www.nichd.nih.gov/publications/pubs/nrp>
- Noelah, M., & Borbon. (2020). Needs assessment of one municipality in the Philippines: Basis for sustainable community extension tourism program. *Asia Pacific Journal of Education, Arts and Sciences*, 7 <https://doi.org/10.13140/RG.2.2.19870.46407>
- Nuqui, A. V., & Cruz, R. C. (2020). Socioeconomic status and academic achievement of Filipino learners: A meta-analysis. *International Journal of Research in Education*, 2(1), 45–55. <https://10.3102/00346543075003417>
- O'Keeffe, G. S., & Clarke-Pearson, K. (2011). The impact of social media on children, adolescents, and families. *Pediatrics*, 127(4), 800–804. <https://doi.org/10.1542/peds.2011-0054>
- Ombleró, H. Q. (2020). Summative evaluation of community extension project: A phenomenological inquiry. *Journal of Advanced Research in Social Sciences and Humanities*, 5(3), 103–107. <https://jarssh.com/ojs/index.php/jarssh/article/view/22>
- Organisation for Economic Co-operation and Development. (2020). *The impact of COVID-19 on education: Insights from education at a glance 2020*. <https://www.oecd.org/education/the-impact-of-covid-19-on-education-insights-education-at-a-glance-2020.pdf>
- Ormilla, R. C. G., & Bacal, V. S. (2021). The implementation of Alternative Learning System in public schools in Isabela, Philippines. *EDUCATUM Journal of Social Sciences*. <https://ejournal.upsi.edu.my/index.php/EJOSS/article/download/4082/2749>
- Palisbo, A. G., & Maming, J. A. (2021). Motivation and engagement among Alternative Learning System learners in Mindanao, Philippines. *International Journal of Learning, Teaching and Educational Research*, 20(5), 130–148. <https://doi.org/10.26803/ijlter.20.5.8>
- Patten, M. L., & Newhart, M. (2021). *Understanding research methods: An overview of the essentials* (10th ed.). Routledge. <https://doi.org/10.4324/9781315213033>
- Patalinghug, M., & Bustamante, R. (2022). Community needs assessment as basis for a community extension program in a state-funded college. *Sci. Int. (Lahore)*, 34(3), 273–275. <https://philpapers.org/archive/EPACNA.pdf>
- Philippine Statistics Authority. (2020). *Annual Poverty Indicators Survey (APIS)*. <https://psa.gov.ph>
- Rahi, S. (2020). Research design and methods: A systematic review of research paradigms, sampling issues, and instruments development. *International Journal of Economics & Business Administration*, 8(2), 1–15. <https://10.4172/2162-6359.1000403>
- Santilli, A., Carroll-Scott, A., & Ickovics, J. R. (2016). Applying community organizing principles to assess health needs in New Haven, Connecticut. *American Journal of Public Health*, 106(5), 841–847. <https://doi.org/10.2105/ajph.2016.303050>
- Sá, M. J., & Serpa, S. (2020). COVID-19 and the promotion of digital competences in education. *Universal Journal of Educational Research*, 8. <https://doi.org/10.13189/UJER.2020.081020>
- Ssemata, A. S., Smythe, T., Sande, S., Menya, A., Hameed, S., et al. (2025). Engaging community groups to enhance healthcare access for persons with disabilities in rural Uganda: A qualitative exploration. *PLOS Global Public Health*, 5(3), e0003140. <https://doi.org/10.1371/journal.pgph.0003140>
- Toquero, C. M. (2020). Challenges and opportunities for higher education amid the COVID-19 pandemic: The Philippine context. *Pedagogical Research*, 5(4), em0063. <https://files.eric.ed.gov/fulltext/EJ1263557.pdf>

- Tumibay, G. M., Sutarno, S., & Al-Samarrai, S. (2021). Adoption of digital technologies among Filipino students and educators during COVID-19. *Asian Journal of Distance Education*, 16(1), 180–200. <http://asianjide.org>
- UNESCO. (2003). *Convention for the safeguarding of the intangible cultural heritage*. <https://ich.unesco.org>
- UNESCO. (2020). *Education in a post-COVID world: Nine ideas for public action*. <https://unesdoc.unesco.org/ark:/48223/pf0000373717>
- UNESCO. (2022). *Global report on adult learning and education: Leave no one behind*. <https://unesdoc.unesco.org>
- UNESCO-UNEVOC. (2021). *Promoting learning for the world of work: TVET's critical role in economic recovery*. <https://unevoc.unesco.org>
- Uy, R. F., Gay, I., Pilvera, C. J., Dibdib, S., Luzuriaga, A., & Laña, Q. (2023). Community needs assessment as basis for the extension program of Philippine College Foundation. *International Journal of Scientific and Management Research*, 6(7), 71–87. <https://doi.org/10.37502/ijsmr.2023.6705>
- William, B., John, T., Olamide, M., & Adebayo, A. (2025). Assessing socioeconomic and cultural determinants of literacy skills among elementary students in the Philippines. *Asian Journal of Education and Social Studies*, 30(2), 45–57. <https://www.researchgate.net/publication/388174663>
- Winner, E., Goldstein, T. R., & Vincent-Lancrin, S. (2013). *Art for art's sake? The impact of arts education*. OECD Publishing. <https://doi.org/10.1787/9789264180789-en>
- World Bank. (2021). *Philippines economic update: Safeguarding a recovery amid emerging risks*. <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/662571626264102897/philippines-economic-update-safeguarding-a-recovery-amid-emerging-risks>
- World Health Organization. (2022). *Mental health and COVID-19: Early evidence of the pandemic's impact*. https://www.who.int/publications/i/item/WHO-2019-nCoV-Sci_Brief-Mental_health-2022.1

Appendices

No appendices are attached to this study.