

# Assessment of School-Community Needs in Education, Health, and Environment as Basis for a Community Extension Program

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## ABSTRACT

This study assessed the educational, health, and environmental needs of a partner school-community in Barangay Camanang, Urdaneta City, Pangasinan, to provide an evidence base for a responsive community extension program. A quantitative descriptive survey design was used. Data were obtained from 45 respondents composed of 15 teachers and 30 parents using a researcher-developed questionnaire that underwent expert review. Frequency counts and percentages described respondent characteristics, while weighted means summarized perceived needs. Teachers were predominantly female, college-educated, and within the lower middle-income bracket, whereas parents were mostly young women with elementary or high school education and largely from poor or low-income households. Educational priorities centered on adequate school supplies (WM = 4.70), remedial reading and literacy support (WM = 4.60), additional learning resources (WM = 4.55), and teacher training in innovative pedagogy (WM = 4.50). Health priorities included regular feeding programs (WM = 4.65), strengthened handwashing and hygiene awareness (WM = 4.60), nutrition education (WM = 4.55), and mental health awareness and resilience-building (WM = 4.50). Environmental priorities included regular clean-up drives (WM = 4.65), improved waste segregation and disposal systems (WM = 4.60), and climate change awareness (WM = 4.50). The findings demonstrate interconnected needs across the school and household environments and support an integrated rather than single-domain response. Based on the assessment, Project LAMP (Nurses Illuminating Young Minds through Health and Educational Support) was proposed as a university-led extension framework integrating educational support, health promotion, and environmental stewardship through collaboration among teachers, parents, learners, government units, and community stakeholders.

**Keywords:** school-community needs, community health, health promotion, environmental health, community extension

## INTRODUCTION

Community extension in higher education institutions (HEIs) is a vital mandate in the Philippines, designed to foster mutually beneficial partnerships between universities and the communities they serve. As part of their threefold function of instruction, research, and extension, universities—particularly nursing colleges—are expected to address pressing concerns in education, health, and the environment through evidence-based interventions. The Commission on Higher Education (CHED) positions research, innovation, and extension as key functions through which Philippine higher education institutions can respond to developmental needs and work with communities (Commission on Higher Education, 2016).

Globally and nationally, integrated community interventions are strengthened when they are preceded by systematic assessment of local priorities. Such assessments enable schools and local governments to identify gaps in health, education, and environmental services and mobilize resources accordingly. School-based assessment has been used in the Philippines to identify priority concerns and guide responsive extension actions (Dinoy et al., 2020).

Within the school context, educational, health, and environmental conditions interact to influence learners' outcomes and community sustainability. Teachers provide institutional perspectives on learning resources, classroom conditions, and children's health behaviors in school, while parents observe the continuity of these concerns at home, particularly in relation to nutrition, hygiene, and environmental safety. Whole-school approaches that engage school and community actors can support student health, well-being, and academic outcomes (Langford et al., 2014).

Systemic challenges remain substantial. The World Bank and UNESCO (2022) reported severe learning poverty in the Philippines, while community-level concerns such as hygiene, malnutrition, and waste management continue to affect children's learning environments. Climate-related hazards further compound these concerns by disrupting education and increasing health and safety risks (Vergara & Blanco, 2023; De Guzman et al., 2025).

Taken together, these conditions support a holistic appraisal of the partner setting. This study therefore examined teachers' and parents' perspectives on education, health, and environmental priorities to establish an empirical basis for a responsive community extension program.

### **Theoretical and Conceptual Framework**

The study was guided by Bronfenbrenner's Ecological Systems Theory and Pender's Health Promotion Model (HPM). Bronfenbrenner (1979) proposed that human development is shaped by interactions across ecological systems, including the family, school, community, and broader sociocultural environment. In the present study, teachers and parents represent key microsystem and mesosystem actors whose experiences help identify conditions affecting children's learning, health behaviors, and environmental safety (Neal & Neal, 2013).

Pender's Health Promotion Model explains health-promoting behavior in relation to perceived benefits, barriers, self-efficacy, and environmental support (Pender et al., 2014). Teachers and parents are important mediators of these influences because they shape children's knowledge, routines, and opportunities for healthy behavior. The model is used here as a conceptual lens for understanding how personal perceptions and supportive environments may shape health-promoting behavior.

Integrating these perspectives, the study considered respondent characteristics as contextual factors, perceived educational, health, and environmental needs as the principal assessment domains, and the proposed community extension program as the practice-oriented output of the assessment.

### **Study Objectives**

This study aimed to assess school-community needs in education, health, and the environment as the basis for a community extension program. Specifically, it described the respondents in terms of age, sex, educational attainment, and socioeconomic status; determined the educational, health, and environmental needs perceived by teachers and parents; and developed a proposed community extension program based on the identified priorities.

## **METHODOLOGY**

### **Research Design**

The study employed a quantitative descriptive survey design to systematically assess the perceived needs of a partner school-community in education, health, and the environment. The design was used to describe existing conditions and concerns without testing relationships between variables. Descriptive designs are appropriate when the objective is to obtain a factual account of an existing phenomenon (Creswell & Creswell, 2018).

## Study Locale and Participants

The study was conducted in a partner school-community in Barangay Camanang, Urdaneta City, Pangasinan, previously identified for extension initiatives of the Urdaneta City University College of Health Sciences. The respondents consisted of 45 participants: 15 teachers and 30 parents. Teachers were included because of their direct observations of pupils' academic challenges, school health practices, and environmental conditions. Parents were included because of their role in supporting children's health and learning at home and their involvement in community activities. Purposive sampling was used to include both stakeholder groups.

## Research Instrument

Data were gathered using a structured questionnaire developed by the researchers from literature on community extension needs and school-based health promotion (Dinoy et al., 2020; Langford et al., 2014). The instrument contained four sections: respondent profile; educational needs; health needs; and environmental needs. The needs items used a five-point Likert scale from 1 (Strongly Disagree) to 5 (Strongly Agree). Three experts in community health nursing, public health, and education reviewed the instrument for relevance, clarity, and alignment with the study objectives. A preliminary pilot administration was conducted with a nearby school-community before field use.

## Data Gathering Procedure and Ethical Considerations

Prior to data collection, the researchers coordinated with the College of Health Sciences and the administration of the partner school to schedule and organize data gathering. Teachers completed the questionnaire during a scheduled faculty meeting. Parents completed the questionnaire during a community orientation session, where the items were explained in the local language when needed. Completed questionnaires were checked for completeness, encoded, and prepared for analysis.

The study was conducted in accordance with the ethical standards and research protocols of Urdaneta City University. Prior to data collection, approval and permission to conduct the study were secured from the College of Health Sciences and the administration of the partner school. All participants were informed of the purpose and scope of the study, informed consent was obtained prior to participation, and confidentiality of respondents and their responses was maintained throughout data collection, analysis, and reporting.

## Data Analysis

Frequency counts and percentages were used to summarize respondent characteristics. Weighted means were computed for each education, health, and environmental need indicator. Mean scores were interpreted using the following ranges: 4.50–5.00 = Strongly Agree; 3.50–4.49 = Agree; 2.50–3.49 = Neutral; 1.50–2.49 = Disagree; and 1.00–1.49 = Strongly Disagree. The study was descriptive; no inferential statistical tests were performed, and teacher and parent responses were not statistically compared.

# RESULTS

## Profile of Teacher Respondents

Table 1. Profile of Teacher Respondents (n = 15)

| Profile Variable | Category        | Frequency (f) | Percentage (%) |
|------------------|-----------------|---------------|----------------|
| Age              | 25–34 years old | 5             | 33.3           |
|                  | 35–44 years old | 6             | 40.0           |
|                  | 45–54 years old | 3             | 20.0           |

|                        |                             |    |      |
|------------------------|-----------------------------|----|------|
|                        | 55 years old and above      | 1  | 6.7  |
| Sex                    | Male                        | 4  | 26.7 |
|                        | Female                      | 11 | 73.3 |
| Educational Attainment | College Graduate            | 12 | 80.0 |
|                        | Postgraduate (Master's/PhD) | 3  | 20.0 |
| Socioeconomic Status   | ₱21,914 – ₱43,828           | 13 | 86.7 |
|                        | ₱43,828 – ₱76,669           | 2  | 13.3 |

Most teacher respondents were 35–44 years old (40.0%), followed by those aged 25–34 years (33.3%). The sample was predominantly female (73.3%). Most were college graduates (80.0%), while 20.0% had postgraduate education. The majority (86.7%) reported monthly income within the ₱21,914–₱43,828 bracket. These characteristics indicate a professionally qualified teaching group whose perspectives provide an institutional view of school-community needs.

### Profile of Parent Respondents

Table 2. Profile of Parent Respondents (n = 30)

| Profile Variable       | Category             | Frequency (f) | Percentage (%) |
|------------------------|----------------------|---------------|----------------|
| Age                    | 25–34 years old      | 24            | 80.0           |
|                        | 35–44 years old      | 6             | 20.0           |
| Sex                    | Male                 | 4             | 13.3           |
|                        | Female               | 26            | 86.7           |
| Educational Attainment | Elementary Graduate  | 14            | 46.7           |
|                        | High School Graduate | 14            | 46.7           |
|                        | College Graduate     | 2             | 6.7            |
| Socioeconomic Status   | Below ₱10,957        | 22            | 73.3           |
|                        | ₱10,957 – ₱21,914    | 6             | 20.0           |
|                        | ₱21,914 – ₱43,828    | 2             | 6.7            |

Most parent respondents were 25–34 years old (80.0%) and female (86.7%). Educational attainment was concentrated at elementary graduate (46.7%) and high school graduate (46.7%) levels, with only 6.7% reporting college graduation. Nearly three-fourths (73.3%) reported monthly income below ₱10,957, indicating substantial socioeconomic vulnerability among participating households.

### Perceived Educational Needs

Table 3. Perceived Educational Needs of the School-Community (n = 45)

| Indicators                                                                  | Weighted Mean | Interpretation |
|-----------------------------------------------------------------------------|---------------|----------------|
| Pupils need adequate school supplies (notebooks, pens, bags).               | 4.70          | SA             |
| Additional learning resources (books, modules) are needed.                  | 4.55          | SA             |
| Tutorial programs for slow learners should be provided.                     | 4.45          | A              |
| Remedial reading and literacy programs are necessary.                       | 4.60          | SA             |
| Classroom facilities and seating capacity are inadequate.                   | 4.40          | A              |
| Values integration and character-building activities are limited.           | 4.35          | A              |
| Teachers need further training in innovative and interactive pedagogy.      | 4.50          | SA             |
| Parents need orientation on supporting learning at home.                    | 4.45          | A              |
| Partnerships with alumni and LGUs for educational support are insufficient. | 4.35          | A              |
| Enrichment activities (academic clubs, competitions) are lacking.           | 4.30          | A              |
| Overall Weighted Mean                                                       | 4.47          | A              |

The overall weighted mean for educational needs was 4.47 (Agree). The highest-rated priorities were adequate school supplies (WM = 4.70), remedial reading and literacy programs (WM = 4.60), additional learning resources (WM = 4.55), and further teacher training in innovative and interactive pedagogy (WM = 4.50). These priorities reflect both material and instructional gaps within the school-community.

### Perceived Health Needs

Table 4. Perceived Health Needs of the School-Community (n = 45)

| Indicators                                                                 | Weighted Mean | Interpretation |
|----------------------------------------------------------------------------|---------------|----------------|
| Pupils need regular feeding programs to address undernutrition.            | 4.65          | SA             |
| Handwashing and personal hygiene awareness must be strengthened.           | 4.60          | SA             |
| School-based health checkups and monitoring are lacking.                   | 4.45          | A              |
| Oral health and toothbrushing programs are insufficient.                   | 4.40          | A              |
| Pupils lack knowledge of nutrition and healthy eating practices.           | 4.55          | SA             |
| Mental health awareness and resilience-building among children are needed. | 4.50          | SA             |
| First-aid preparedness in school is inadequate.                            | 4.35          | A              |
| Parents need education on family planning and maternal-child health.       | 4.50          | SA             |

|                                                                          |      |   |
|--------------------------------------------------------------------------|------|---|
| Access to safe drinking water in school is inconsistent.                 | 4.40 | A |
| Awareness of government health programs (e.g., immunization) is limited. | 4.30 | A |
| Overall Weighted Mean                                                    | 4.47 | A |

The overall weighted mean for health needs was 4.47 (Agree). Regular feeding programs received the highest rating (WM = 4.65), followed by strengthened handwashing and personal hygiene awareness (WM = 4.60), nutrition and healthy-eating education (WM = 4.55), mental health awareness and resilience-building (WM = 4.50), and parent education on family planning and maternal-child health (WM = 4.50).

### Perceived Environmental Needs

Table 5. Perceived Environmental Needs of the School-Community (n = 45)

| Indicators                                                                 | Weighted Mean | Interpretation |
|----------------------------------------------------------------------------|---------------|----------------|
| Waste segregation and disposal systems are inadequate.                     | 4.60          | SA             |
| Regular clean-up drives are needed to maintain school surroundings.        | 4.65          | SA             |
| Drainage and flooding issues affect school safety.                         | 4.40          | A              |
| Environmental education and awareness among pupils are lacking.            | 4.45          | A              |
| Tree planting and greening activities are insufficient.                    | 4.35          | A              |
| Recycling and upcycling initiatives are not practiced regularly.           | 4.30          | A              |
| Disaster preparedness activities are limited.                              | 4.45          | A              |
| Partnerships with LGUs on environmental management are weak.               | 4.30          | A              |
| Pupils lack awareness of climate change impacts.                           | 4.50          | SA             |
| Stakeholder collaboration for sustainable environment programs is limited. | 4.35          | A              |
| Overall Weighted Mean                                                      | 4.44          | A              |

The overall weighted mean for environmental needs was 4.44 (Agree). Regular clean-up drives (WM = 4.65) and adequate waste segregation and disposal systems (WM = 4.60) were the strongest priorities, followed by climate change awareness (WM = 4.50). Respondents also identified needs related to environmental education, disaster preparedness, drainage and flooding, greening activities, recycling, and stakeholder collaboration.

## DISCUSSION

The identified priorities are interconnected rather than confined to a single sector. Educational results emphasize basic learning resources and literacy support, consistent with continuing concerns regarding learning poverty in the Philippines (World Bank & UNESCO, 2022). Strong ratings for teacher training and parent orientation further suggest that educational improvement requires participation from both school and household actors.

Health priorities centered on nutrition, hygiene, and health education. The high rating for feeding programs is especially relevant in a community where most participating parents reported low household income. The identified need for hygiene, nutrition, mental health, and family health education also supports a health-

promoting-school approach in which health and learning are treated as mutually reinforcing outcomes (Langford et al., 2014).

Environmental priorities focused on cleanliness, waste management, climate awareness, and disaster preparedness. These concerns are important in a Philippine setting where environmental hazards and climate-related disruptions can affect both school safety and health. The findings support environmental education and preparedness activities that involve schools, families, local government, and community stakeholders rather than relying solely on classroom instruction.

Viewed through Bronfenbrenner's ecological perspective, the results demonstrate how needs observed in the school environment are linked with household and community conditions. Pender's Health Promotion Model likewise supports the importance of creating supportive environments and strengthening the knowledge and participation of teachers and parents. Together, these findings justify an integrated extension response that combines educational support, health promotion, and environmental stewardship.

### **Limitations**

This study has several limitations. The sample was small, purposively selected, and drawn from a single partner school-community; therefore, the findings are context-specific and should not be generalized to other settings. The measures were self-reported, and the consistently high weighted means may reflect genuine consensus regarding priority needs but may also have been influenced by social desirability, acquiescence, or limited discrimination among Likert-scale items. Teacher and parent respondents were included to capture perspectives from school and household contexts, but the groups were not statistically compared. These considerations should be taken into account when interpreting the findings.

### **Proposed Community Extension Program: Project LAMP**

Based on the needs assessment, the study proposes Project LAMP (Nurses Illuminating Young Minds through Health and Educational Support) as an integrated community extension framework. The program is intended to address the three priority domains through coordinated university-school-community action.

The education component includes provision of school supplies and learning materials, remedial reading and literacy activities, tutorial and enrichment support, teacher capacity-building, and parent orientation on supporting learning at home. The health component includes feeding and nutrition activities, hygiene and handwashing promotion, mental health and resilience education, family planning and maternal-child health sessions, preventive health checkups, and first-aid preparedness. The environmental component includes regular clean-up activities, waste segregation and recycling, tree planting and greening, climate change awareness, and disaster-preparedness activities in collaboration with local government and community stakeholders.

Project LAMP therefore translates the needs assessment into a practical extension framework that can be implemented, monitored, and subsequently evaluated for effects on educational support, health awareness and practices, and environmental responsibility.

### **CONCLUSION**

The assessment identified substantial and interconnected needs in education, health, and the environment within the partner setting. The inclusion of teachers and parents allowed the study to capture perspectives from both school and household contexts; these stakeholder groups were not statistically compared. The strongest priorities included school supplies and literacy support, feeding and hygiene promotion, and clean-up and waste-management activities. These findings support a coordinated response rather than isolated activities. Project LAMP was consequently proposed as an evidence-informed framework integrating educational support, health promotion, and environmental stewardship.

## RECOMMENDATIONS

Project LAMP should be implemented in phases according to the priorities identified in the assessment. Educational interventions should include learning resources, literacy support, teacher development, and parent engagement. Health activities should prioritize nutrition, hygiene, mental health awareness, family health education, and preventive services. Environmental initiatives should strengthen waste management, school-community clean-up, climate awareness, and disaster preparedness. A monitoring and evaluation framework should be established before implementation so that subsequent research can assess program reach, implementation quality, and outcomes. Partnerships with local government units, schools, civic organizations, and other stakeholders should be strengthened to support continuity and sustainability.

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## Conflict Of Interest

The authors declare no conflict of interest.

## Data Availability

The data supporting the findings of this study are not publicly available because they were collected from a specific partner school-community under assurances of confidentiality. Requests for access to de-identified data may be directed to the corresponding author and will be considered subject to institutional and confidentiality requirements.

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