NEEDS ASSESSMENT IN LAO-INGEN ELEMENTARY SCHOOL: BASIS FOR DESIGNING A COMMUNITY DEVELOPMENT PLAN

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Abstract: This study aimed to assess the needs of the stakeholders in Lao-ingen Elementary School of Sto. Domingo, Ilocos Sur. Based on the findings of the study, all the three groups of respondents need trainings on technology transfer for parents; research capability, teaching methodologies and instructional materials development for teachers; numeracy and other mathematics-related activities for the pupils. Willingness to support on the possible activities was shown by the respondents which is to be implemented by the researchers. As consequence of the Needs Assessment Survey, the researchers crafted a proposed 3-Year Development Plan. In the light of the findings and conclusions, it is recommended that an immediate response should be done by the implementing entities to cater the needs of the beneficiaries.

Keywords: Community, extension services, personal-related profile, programs offered, in-service trainings, technology transfer, numeracy and problems encountered.

INTRODUCTION

In the history of the Philippines, it is an archipelago Southeast Asian country comprising 7,107 islands located in the western Pacific Ocean. The country is prone to frequent earthquakes and typhoons due to its location on the Pacific Ring of Fire. Its islands enjoy vast natural resources and very high levels of biodiversity. The population of the Philippines is 94, 852, 030 (2011), growing at a rate of 1.8 percent per year. Philippines' capital is Manila. According to Qamar, M.K. (2012), the country is divided into three island groups namely Luzon, Visayas, and Mindanao. The island groups are divided into 16 regions, which are sub-divided into 79 provinces. Within all the provinces are 114 cities, 1, 496 municipalities, and 41, 939 barangays (smallest administrative divisions). Most of the mountainous islands are covered by tropical rainforest. The climate is tropical, warm and humid with distinct dry season (November to May) and wet season (June to October). Mismanagement, environmental pollution and high population are the cause of widespread poverty. The Asian financial crisis of 1997 also affected the Philippines economy.

Although the Philippines is gradually transforming into an industrialized nation yet, basically, it is still an agricultural country, with about one third of its population living in rural areas. The agriculture sector comprises farming, fisheries, forestry and livestock. It employs close to 39.8 percent of the country's work force, and its contribution to the GDP is about 20 percent. The sector has suffered from low public investment, especially in the area of irrigation systems, sustained low productivity levels, costly farm inputs, and lately increased frequency of typhoons and flooding. Such problems and lucrative prices being offered by real estate developers has tempted a large number of poor farmers into selling their cultivable lands, which have been converted into golf courses, resorts and building complexes. Deforestation and excessive application of chemical farm inputs have caused environment problems. The government has tried to modernize the agriculture sector through the Agricultural Fisheries Modernization Act (1997) and the Medium Term Agricultural Development Plan (2001-2004).

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The usual size of landholding is about 2.16 hectares, which has been declining in recent years. Crops, fruits, vegetables, poultry and swine are common features of farms. Main crops are rice, corn, coconut, sugarcane, bananas, pineapple, coffee, mangoes, tobacco, and abaca, and the secondary crops include peanut, cassava, camote, garlic, onion, cabbage, eggplant, calamansi, rubber, and cotton. Commercial agriculture operated by large plantations covers coconuts, copra, sugarcane, tobacco, bananas and pineapples. Major agricultural and fishery exports comprise coconut oil, bananas, pineapple, tuna, seaweed and prawns.

On one side, the University of Northern Philippines continues its mission to produce globally competent and pro-active professionals through instruction, research, extension and production, it involves even the students of post-graduate studies education to be actively involved in extension services. Along with instruction and research, extension is one of the main tasks of a teacher. The University thru the College of Teacher Education-Graduate Studies Education reach-out to the different communities to touch lives by extending help through trainings, seminars, programs and among others.

The University is really committed in pursuing sustainable extension services through development agenda of the Local Government Units (LGU) to extend help to the people. In return, LGUs established their collaboration with the University for the Provision of extension services unified direction to improve the quality of life in the under privileged and undeserved communities. This collaborative effort is linked through a Memorandum of Agreement for the Adopt-a-Community and School Program. Therefore, the need assessment survey was conducted to determine the problems, issues and concerns of the clienteles and would serve as the basis of designing a community development plan for the community.

The needs assessment survey aimed to determine the problems, issues and concerns of Lao-ingen Elementary School, Lao-ingen, Sto. Domingo, Ilocos Sur.

Specifically, it sought to determine the (1) available resources in the barangay/community (2) personal profile of the respondents in terms of their age, sex, civil status, educational attainment, occupation, monthly income, membership in an organization, and years of stay in the Barangay/Community. (3) Training needs of the respondents along skills training and technology transfer, advocacy campaigns on current issues and concerns, environmental and natural resource management, library-related programs, livelihood and training services, engineering and surveying services, promotion and preservation program and services, health education program and services, security and public safety program, and agribusiness technology; (4) specific needs along Mathematics education such as mentoring on math contests, teaching methodologies, research capability, and numeracy program on subject contents. (5) Problems encountered and suggested other activities to conduct.

This study hopes that the needs of the stakeholders of Lao-ingen Elementary School will be identified and be implemented through extension services of the university.

METHODOLOGY

This study made use of the descriptive-survey method through an interview. The descriptive-survey method was used to describe the personal profile of the respondents, skills training and technology transfer, livelihood training programs, information drive/advocacy programs, training-seminars, consultancy services, capability programs and community outreach programs needed by the community while the qualitative method was used to identify encountered problems and other suggested activities to conduct.

The respondents of the need assessment surveys were the 9 teachers, 17 parents and 12 pupils of Lao-ingen Elementary School, Lao-ingen, Sto. Domingo, Ilocos Sur.

The researchers noted and make sure that there were no conflict of interest during the conduct of this study. Privacy and confidentiality were observed by safeguarding the identity of the participants considering code numbers both for hard and soft copies, the latter can only be accessed by a password. The disposal of the copies/documents shall be through shredding and deletion from the laptop after two years. Since some of the respondents were 18 years old their participation shall be confirmed by a duly approved Informed Consent Form. The researchers also considered that no compensation incentives were given to the respondents.

The instrument used in gathering the needed data was a questionnaire-checklist on needs assessment survey form of the University Extension Office. Frequency and percentage, and ranking were used to treat the data gathered.

FINDINGS OF THE STUDY

Available Resources in the Barangay:

Table 1 shows the consolidated available resources in Lao-ingen, Sto. Domingo, Ilocos Sur.

Natural Resources in the Barangay*	Rank
Rice	1
Vegetables	2
Fruit Trees	3
Root Crops	4
Forest Trees	5
Fish	6

Table 1: Ranks on the Available Resources in the Barangay.

*- Multiple Response

As observed from the table, there are five major available resources in the locale where the research was conducted. Most of resources were agricultural products. It is important to note that producing rice and vegetables is the most common resources in the community as seen in the ranking. This is the reason why most of all in the place are farmers.

Profile of the Respondents (Teachers, Parents and Pupils):

Table 2 presents the personal profile of the respondents.

For teachers-respondents

It shows that almost all the teacher-respondents are aged 31-40 years old (8 or 88.89%) and only one is aged above 50 years old (11.11%). Most of the teachers are female (7 or 77.78%), and only two (22.22%) are male. All respondents are married and teachers by profession (9 or 100%). Eight of the respondents (88.89%) are college graduate while only one (11.11%) has a post graduate degree. Almost all the respondents (8 or 88.89%) have a monthly salary of 10,001.00 pesos and up while one (11.11%) received a monthly salary of 9, 001.00 – 10, 000.00 pesos. Only one out of nine (11.11%) is a senior citizen already. There are eight (88.89%) who have resided in the barangay/community for 10 years or more and only one (11.11%) who stayed in the barangay for 7-8 years. Eight or 88.89% mentioned that vegetables are the foremost product in the barangay/community and followed by rice and fruit trees (6 or 66.67%).

For parents-respondents

A greater number of the respondents (11 or 64.71%) aged 31-40 years old and both three (17.65%) are aged 20-30 and 41-50 years old. All of them are female (17 or 100.00%).

Ducélo	Те	eachers	Pa	rents	Pupils	
Profile	f	%	f	%	f	%
A. Age						
Below 20	-	-	-	-	12	100.00
20-30	-	-	3	17.65	-	-
31-40	8	88.89	11	64.71	-	-
41-50	-	-	3	17.65	-	-
Above 50	1	11.11	-	-	-	-
Total	9	100.00	17	100.00	12	100.00
B. Sex						
Male	2	22.22	-	-	3	25.00
Female	7	77.78	17	100.00	9	75.00
Total	9	100.00	17	100.00	12	100.00
C. Civil Status						
Married	9	100.00	15	88.24	-	-
Single	-	-	2	11.76	12	100.00
Total	9	100.00	17	100.00	12	100.00
D. Educational Attainment						
Post Graduate	1	11.11	-	-	-	-
College Graduate	8	88.89	7	41.18	-	-
College Undergraduate	-	-	1	5.88	-	-
High School Graduate	-	-	8	47.06	-	-
Trade Tech Graduate/Vocational	-	-	1	5.88	-	-
Elementary Level	-	-	-	-	12	100.00
Т	'otal 9	100.00	17	100.00	12	100.00

Fifteen of them (88.24%) are married and two (11.76%) are single. Most of the respondents (8 or 47.06%) are high school graduate; 7 (41.18%) are college graduate and the remaining 2 are college level and trade tech graduate (5.88%) respectively. Majority of the respondents (11 or 64.71%) are housekeepers and there are 5 (29.41%) who are farmers. Twelve (70.59%) of the parent-respondents have a monthly salary of 1, 001.00-2, 000.00 pesos while five (29.41%) have monthly salary of 2, 001.00-3, 000.00 pesos. A great number of 6 (35.39%) are barangay health workers; and 5 (29.41%) are part of farmers association. A great percentage of 76.47% or 13 out of 17 respondents stayed more than 10 years in the community. Rice is said as the foremost product of the barangay with 13 (76.47%) respondents claimed it; followed by vegetables (10 or 58.82%) and forest trees (6 or 35.29%).

Continuation...

Profile		achers	Par	rents	Pupils	
r rollie	f	%	f	%	f	%
E. Educational Attainment						
Post Graduate	1	11.11	-	-	-	-
College Graduate	8	88.89	7	41.18	-	-
College Undergraduate	-	-	1	5.88	-	-
High School Graduate	-	-	8	47.06	-	-
Trade Tech Graduate/Vocational	-	-	1	5.88	-	-
Elementary Level	-	-	-	-	12	100.00
Total	9	100.00	17	100.00	12	100.00
F. Occupation	•	· · · ·				
Employee	-	-	1	5.88	_	-
Teacher	9	100.00	-	-	-	-
Farmer	-	-	5	29.41	-	-
Housekeeper	-	-	11	64.71	-	-
Total	9	100.00	17	100.00	-	-
G. Income per Month	•	· · · ·				
1,001.00-2,000.00	_	-	12	70.59	_	-
2,001.00-3,000.00	-	-	5	29.41	-	-
9,001.00-10,000.00	1	11.11	-	-	-	-
10,001.00 and up	8	88.89	-	-	-	-
Total	9	100.00	17	100.00	-	-
H. Membership in an Organization*		· · ·				
Barangay Health Worker	-	-	6	35.29	_	-
4H Club	-	-	-	-	4	33.33
Farmers Association	-	-	5	29.41	-	-
Senior Citizen	1	11.11	-	-	-	-
I. Years of Stay in the Barangay/Community						
Less than 12 months	_	-	-	-	3	25.00
1-2 years	-	-	-	-	1	8.33
3-4 years	-	-	1	5.88	-	-
5-6 years	-	-	1	5.88	-	-
7-8 years	1	11.11	-	-	-	-
9-10 years	-	-	2	11.77	-	-
11 years and up	8	88.89	13	76.47	8	66.67
· · · · · ·	9	100.00	17	100.00	12	100.00
Total						

*- Multiple Responses

For pupils-respondents

All the respondents (12 or 100%) are aged below 20 years old since they are still elementary. Most of the respondents are female (9 or 75.00%), and only three (25.00%) are male. Since they are still elementary graders, all of them (12 or 100.00%) are single and not yet income-earners. Only 4 (33.33%) are members of the 4H Club. Majority of the respondents (8 or 66.67%) have stayed in the barangay/community for 10 years or more while there are still 3 (25.00%) who are just resided for less than 12 months.

Training Needs of the Respondents (Teachers, Parents and Pupils):

The next table (3) presents the training needs of the respondents.

On Skills Training and Technology Transfer

	Tea	chers	Par	ents	Puj	oils
Needs of the Respondents	Mode	Rank	Mode	Rank	Mode	Rank
A. Skills Training and Technology Transfer					•	
Driving	2	3	1	3	-	-
Building Wiring and Trouble Shooting	2	3	-	-	-	-
Motorcycle repair and trouble shooting	2	3	-	-	-	-
Housekeeping	1	5	11	1.5	-	-
Speech Choir/Declamation/Oral Clinic	-	-	-	-	1	3
Support to Special Education	-	-	-	-	2	2
Tutorial Services	8	1	11	1.5	10	1
B. Advocacy Campaign						
Peace Education	-	-	4	2	-	-
Drug Education	3	2.5	-	-	-	-
Environmental Awareness	-	-	3	3	-	-
Responsible Parenthood	-	-	5	1	-	-
Gender and Development	4	1	1	4	-	-
Climate Change	3	2.5	_	_	3	1
C. Environment and Natural Resource Managen Climate Change and DRRM	3	1	-	-	3	1
Environmental Protection and Conservation	-	-	6	1	-	-
D. Library-related Programs		•		1		1
Organization of a Library/Reading Center	8	1	11	1	10	1
Alay-Book Mobile	-	-	1	2	1	1
Simple House Wiring and Trouble Shooting	-	-	1	5	-	-
Tailoring/Dressmaking and Cloth Bag Making	8	1	14	1	10	1
Food Processing, Cooking, Baking	7	2	9	2	7	2
Arts Training	-	-	1	5	-	-

Table 3: Ranks on the identified Needs of the Respondents.

Continuation...

E. Engineering and Surveying Services						
Infrastructure and Surveying Services	2	1	4	1	_	_
Land Boundary Dispute Survey	-	-	1	2	_	-
F. Promotion and Preservation Program and Services	-	-	-	-	-	-
Tour Guiding	-	-	4	1	-	-
Ancestral House Conservation	-	-	1	3	-	-
Local History and Culture	2	1	1	3	-	-
Eco-Tourism	-	-	1	3	-	-
G. Health Education Program and Services						
Maternal and Child Health	-	-	1	5.5	-	-
Disaster Risk Reduction Management	2	2	-	-	-	-
Responsible Parenthood Nutrition	-	-	2	3.5	-	-
Alternative Medicine Education	-	-	4	1	-	-
Medical/Dental/Optical/Surgical Mission	3	1	2	3.5	-	-
BFS/RBS Management	-	-	1	5.5	-	-
Blood Typing	-	-	3	2	-	-
H. Security and Public Safety Program						
Martial Arts Training	2	1	3	2	-	-
Violence Against Women	1	2.5	4	1	-	-
Fire Prevention Education	1	2.5	-	-	-	-
I. Agribusiness Technology						
Organic Farming	2	-	6	-	-	-
Mushroom Production	-	-	1	-	-	-

For Teachers

The table reveals that almost all of the rank "tutorial services" first as the priority need on skills training of the school and "driving", "building wiring" and "motorcycle repair" ranked second. Gender and Development is the main advocacy campaign that they identified as need while climate change and DRRM on environment and natural resource management. Along library related programs, the teachers need organization of a library or reading center. Tailoring, dressmaking, cloth bag making and food processing are identified as needs along livelihood and training services. There are also teachers which identified that there is a need on infrastructure and surveying, medical/dental/optical/surgical missions, martial arts training and organic farming.

For Parents

It can be seen from the table parents identified the following needs: housekeeping and tutorial services along skills training and technology transfer, responsible parenthood and peace education along advocacy campaigns, environmental protection and conservation along environment and natural resource management, organization of a library along library related programs, tailoring, dressmaking, cloth bag making and food processing along livelihood training services, infrastructure and surveying services along engineering and surveying services, tour guiding along promotion and preservation program, alternative medicine education along health education program, violence against women and martial arts training along security and public safety program and organic farming along agriculture technology.

For Pupils

Furthermore, it can be gleaned from Table 2 the following identified needs of the pupils: tutorial services and support to special education. In addition, they need climate change advocacy campaigns, organization of a library or reading center, tailoring, dressmaking, cloth bag making and food processing.

Specific Needs of the Pupils along Mathematics:

Table 4 show the specific needs along mathematics education.

Areas of Needs	Tea	Teachers		Parents		pils
	f	Rank	f	Rank	f	Rank
A. Mentoring on Math Contests						
Mentoring on Damath Games	8	1	5	1	11	2.5
Mentoring on Rubiks	6	2.5	1	2.5	11	2.5
Mentoring on Quiz Bee	5	4	1	2.5	11	2.5
Mentoring on Math Relay	6	2.5	-	-	11	2.5
B. Teaching Methodology						
ICT-Based Instruction	5	2	7	1	10	1
New Trends	6	1	1	1	-	-
C. Research Capability						
Research Writing	5	2	7	1	9	1
Statistical Analysis	7	1	1	2	-	-
D. Numeracy Program on Subject Content						
Numeracy on Subject Content	2	1	-	-	4	1

Table 4: Distribution on the Specific Needs along Mathematics Education.

Evident from the table that the respondents have identified the needs on mentoring mathematics contests. Mentoring on DaMath is the topmost priority for both parents and teachers followed by Rubiks and math relay contests. However, it is noteworthy to present that the pupils have identified mentoring on DaMath, Rubiks, QuizBee and math relay equally important.

Moreover, teachers identified new tends in teaching methodologies is chosen over ICT-Based teaching as top priority. However, parents and pupils identified new based learning as priority over new trends.

The teachers need mentoring on statistical analysis and research writing. Lastly, numeracy on subject content are identified as priority by all the respondents.

Problems of the School/Community as Perceived by the Respondents:

Table 5 shows the perceived problems, issues and concerns needs to be address in the barangay/community.

Both teachers and parents identified the two topmost perceived problems in the community that needs to be addressed: unemployment and malnutrition.

	Tea	chers	Par	ents
A. Problems in the Barangay/Community	f	Rank	f	Rank
Malnutrition	2	2	12	1
Drug Addiction	1	4	1	5
Peace and Order	-	-	5	4
Unemployment	6	1	10	2
Crimes	1	4	-	-
Suicide	1	4	-	-
Teenage Pregnancy	-	-	5	4
Early Marriage	-	-	5	4

Table 5: Distribution on the Perceived Problems in the Barangay/Community.

On Suggested Activities to Conduct to Address Problems Met:

Table 6 shows the suggested activities to conduct to address the perceived problems, issues and concerns.

The respondents perceived that in order to address the identified problems above, the following activities must be conducted: in service training, values formation, time management and personality development.

Activities to Conduct to Address Problems Met	Tea	chers	Parents		
Activities to Conduct to Address Problems Met	f	Rank	F	Rank	
In-service trainings	5	1	4	2	
Values formation	-	-	4	2	
Teaching Strategies	-	-	1	5	
Time Management	1	3	4	2	
Personality Development	3	2	3	4	

Table 6: Suggested Activities to Conduct to Address Problems Met.

On Support to Extension Program

Table 7 shows the willingness of the respondents on the extension services of the university.

The teachers and parents implied their support on the extension services that the university will be extending.

Teachers	YES	NO
A. Are you willing to support the extension services of the University? Please check your answer in the space provided.	9	0
Parents		
A. Are you willing to support the extension services of the University? Please check your answer in the space provided.	15	2

Table 7: Willingness to Support the Extension Program.

Table 8 shows the kind of support that the respondents can provide.

The respondents, that is, both teachers and parents are willing to extend the venue or accommodation and even financial equity to the extension services of the university that will be offered.

Activities to Conduct to Address Problems Met	Teac	hers	Parents		
Activities to Conduct to Address Froblems Met	f	Rank	f	Rank	
Venue/Accommodation	5	55.56	9	52.94	
Financial Equity	4	44.44	6	35.29	

Table 8: Kind of Support the Respondents Are Willing to Extend.

On the 3-Year Development Plan:

To facilitate the implementation of the extension program, the researchers crafted a 3-Year Development Plan for Lao-ingen Elementary School.

The implementing entity of the extension program are the Master of Arts in Mathematics Education (MAME) faculty together with graduate students enrolled in the program while the beneficiaries are the stakeholders of Laoingen Elementary School, Lao-ingen, Sto. Domingo, Ilocos Sur. The Program is entitled: <u>Mathematics Literacy</u> through <u>Gainful Activities for Young and All</u> Program or the <u>MaLiGAYA</u> Program.

The <u>Mathematics Literacy</u> through <u>Gainful Activities for Young and All Program</u> (<u>MaLiGAYA</u> **Program**) aims to develop the teachers, pupils and parents as well of LES professionally, intellectually, economically, and psychologically to improve of education that LES is offering to its clientele. It was conceptualized and formulated due to the reason that most pupils are not performing well in reading, arithmetic, mathematics-related activities and some of the are malnourish while teachers have limited exposure to research development, ICT training, coaching, journalism.

The <u>MaLiGAYA</u> Program is timely because nowadays, teachers and pupils in LES need more skills and trainings to prepare themselves with the new trends and innovations in education and to be ready with the Industrial revolution 4.0. Moreover, it is being initiated to promote literacy and numeracy among teachers and pupils for the development of the school and the community in general. Likewise, this is a good way to improve the needs and to prepare them for the 21st century.

As per profile of the school, Lao-ingen Elementary School is the eastern most school Sto. Domingo-San Ildefonso District. It is found in Lao-ingen, Sto. Domingo, Ilocos Sur, a barangay 7 kilometer away from the town. It is headed by a Head Teacher with 8 teachers, one male and seven females. It has a total population of 193 pupils, 102 males and 91 females for S.Y. 2018-2019. LES is one of the three elementary schools in the municipality and is categorized as a small school.

It has a total land area of 3,331 sq meters. The facilities in the school are made of concrete and galvanized iron. And there are 10 rooms, 7 of which are classrooms and the others are canteen, industrial room, and computer room and library & science laboratory.

The source of water is solely spring this result to scarcity of water during the month of March, April, May, and June.

Though it is situated in a far flung barangay, the school shares its best and gives the best services in molding the school populace towards the realization of quality education and the thrust and programs of the Department of Education.

It is also important to note that Lao-ingen Elementary School is one of the Indegenous Peoples' Education School (IPED) in the Schools Division of Ilocos Sur who belong to Tinguian Tribe. It has 4 IP teachers including the

School Head and 89 IP Learners. Teachers always join/participate in the Division IP Congress and Regional IP Congress.

The program hopes to make Lao-ingen Elementary School a best managed school by 2022 behold with new trends on technology as well as skills in reading and arithmetic for the teaching learning process and also professional growth and development of the teachers. This vision of the implementers grounded from the target activities such as the Math-tuto Math turo, Development of Learning Package, Research Mentoring, Livelihood Training Initiatives and Community Outreach Programs. *For the more details of the program, see the attached the proposed 3-Development Plan.*

CONCLUSIONS

Based on the findings, the following conclusions were drawn:

- 1. All the three groups of respondents need trainings on technology transfer for parents; research capability, teaching methodologies and instructional materials development for teachers; numeracy and other mathematics-related activities for the pupils.
- 2. Willingness to support on the possible activities was shown by the respondents which is to be implemented by the researchers.
- 3. As consequence of the Needs Assessment Survey, the researchers crafted a propose 3-Year Development Plan.

RECOMMENDATION

In the light of the findings and conclusions, it is strongly recommended that immediate response to the needs of the community be conducted and delivered by the University to address the needs and counter the pressing problems, issues and concerns of the community and a speedy coordination and collaboration to the concerned agencies for the success of the endeavors.

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