Community Needs Assessment: Basis for the Development of Sustainable Extension Program

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Abstract

This paper describes the needs assessment phase of partner community as basis for the development of sustainable extension program in the LGU of Barangay Tanza, Estancia, Iloilo. This qualitative assessment research will identify the needs of the partner community through consultative meetings and focus group discussions in order to establish long-term programs, projects, and activities to help people improve their quality of life through ICT extension programs. The study included a total of 100 residents as participants. The findings of the study were used to develop a planned annual extension scheme that would run from June 2021 to December 2025. Results revealed that the needs of the partner beneficiaries in terms of ICT programs were: Computer Literacy Program, Barangay Information System, RHU Childcare System, Prenatal Management System, SK Information System, Vaccination Computer Hardware Assembly and Troubleshooting, Desktop Publishing and Photo Editing

Keywords: Needs Assessment, Extension Program, Community Service, ICT

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1.   INTRODUCTION

Northern Iloilo State University (NISU) is a university in Estancia, Iloilo, dedicated to providing high-quality, relevant education, research, and extension activities that are harmoniously intertwined to promote effective learning.

Community service has been described as services which are identified by an institution of higher education, through formal or informal consultation with local non-profit, governmental, and community based organizations, as designed to improve the quality of life for community residents, particularly low-income individuals, or to solve particular problems related to their needs [1].

The institutions, in collaboration with various academic departments, students, faculty, and staff organizations, have been involved in community service. Developing a community in which it is absolutely necessary to seek assistance from various agencies such as academic institutions is an act of fulfilling the mission of assisting people in improving not only their living standards but also the character and values of the students and employees who participate in this worthwhile endeavour [2].

Community Needs Assessments seek to gather accurate information representative of the needs of a community. Assessments are performed prior to taking action and are used to determine current situations and identify issues for action. Needs assessments establish the essential foundation for vital planning [3].In order to achieve a sustainable community development programs, the socio-economic situation of the people should be the utmost priority to ensure that the process of community development achieves continuity and stability [4].

Information and Communication Technology(ICT) is an increasingly powerful tool for participating in global markets; promoting political accountability; improving the delivery of basic services; and enhancing local development opportunities. But without innovative ICT policies, many people in developing countries - especially the poor - will be left behind [5].

In this context, the College of Information and Computing Studies (CICS) of NISU recognized the importance of providing educational and outreach services to the community and saw the necessity to perform a needs assessment to the target community in the field of ICT.

1.1 Objectives of the Study

The main objective of the study is to assess the different needs of the partner community specifically in in the field of ICT.

2. METHODOLOGY

a. Study Area

Tanza is located in the province of Iloilo, in the municipality of Estancia (11° 25' 44" N, 123° 8' 18" E). It is situated at around 11.4375, 123.1363, on the island of Panay. The elevation above mean sea level is calculated to be 24.5 meters (59.4 feet). It had a population of 1,413 people according to the 2020 Census. This amounted to 2.66 percent of the total population of Estancia [6].

Figure 1. Map of Tanza, Estancia, Iloilo

b. Participants

In this study, 100 individuals of Barangay Tanza, Estancia, Iloilo were chosen at random. They came from a wide range of backgrounds, including fishermen, farmers, women, youth, barangay officials, and 4Ps recipients. Prior to the start of the procedure, they were briefed on the program's goals and objectives.

c. Procedure

This qualitative study used consultative meetings and focus group discussions to identify gaps, map out concerns, and select critical training priorities in order to develop a viable extension program. Participants were asked to write down the need for computer skills in their fields, as well as contributing factors and suggested solutions. Each group presented its findings, which were then discussed.

Figure 2. The images shows the active participation of various sectors in the need assessment activity.

3. RESULTS AND DISCUSSION

Needs Assessment Result

Based on the answers of the respondents and the observation made by the researchers in Barangay Tanza, the needs were arranged thematicallyand were categorizedin the following areas of ICT: a. Computer Literacy; b. Barangay Information System; c. RHU Childcare System; d. Prenatal Management System; e. SK Information System; f. Vaccination System; g. Computer Hardware Assembly andTroubleshooting; h. Desktop Publishing and Photo Editing; i. Cyber bullying Awareness among Youth.

a. Computer Literacy

It is a collection of skills, knowledge, understandings, value and relationships that allows a person to function comfortably as a productive citizen of a computer oriented society [7]. It comprises a number of aspects, including technological awareness, technical vocabulary, components of a computer, concepts of data and programs, ways of computing, working on files, documents and pictures, working with multimedia, evaluating resources and communicating with others [8].

Based on the result of the assessment conducted, one of the needs of the respondents was a computer literacy training program. This training will include Microsoft Word and Microsoft Powerpoint training courses. Trainees who complete the Microsoft Word training course will be able to create, edit, and save documents, format text, and paragraphs, work with tables, columns, and other formatting features, and work with graphics, WordArt, charts, and text flow. In addition, Microsoft PowerPoint enables the participants to create presentations, format and organize slides, work with graphics, tables, and charts, incorporate multimedia and SmartArt presentations, and integrate Microsoft Office files.

b. Barangay Information System (BIS)

Our society has become increasingly reliant on technology. It changed the way people perceive and value things [9].

One way to keep track of information about people is to keep barangay records. BIS is capable of recording and storing massive amounts of data for long periods of time. This technology can assist in achieving strategic objectives such as lowering paper usage and expediting file retrieval from large documents. BIS may maintain track of residents' records, including personal and family information, complaints, and amicable resolution information, as well as provide daily reports for the Barangay..

c. RHU Childcare System

Immunization is a global health and development success story, saving millions of lives every year. It is a key component of primary health care and an indisputable human right. It's also one of the best health investments money can buy. Vaccines are also critical to the prevention and control of infectious disease outbreaks. They underpin global health security and will be a vital tool in the battle against antimicrobial resistance [10].

RHU Childcare System is a web based system that will automate the process of recording and storing details of child immunization records and will notify the parent of the child of the immunization schedule. It also aims to ensure that children, especially newborns, and their mothers have access to immunizations records that is indicated to track what vaccine will be vaccinated or is needed for their age category to prevent specific diseases. In addition, this will lessen the work in writing and reduced paper consumption of the midwives working in the RHU of the said barangay.

d. Prenatal Management System

Pregnancy is a time when women are expected to mitigate risk to themselves and their babies [11]. In today's environment, computers have become omnipresent and indispensable. Because of the issues associated with integrating new hospital information systems with traditional paper documentation and record systems, clinicians and other health care practitioners may become encumbered with different and conflicting sources of patient information [12].

In an ideal maternal health system, all women would have access to comprehensive, seamless medical care with links to behavioral, economic, and social supports[13]. Prenatal care is often the primary way for pregnant women access basic health care. With that in mind, one must look at prenatal care in the context of risk assessment, health promotion, and risk-directed intervention in general and not just from an obstetrical

perspective. This means that a large range of issues must be systematically and consistently addressed during prenatal care [14].

Prenatal Management Systemis a web based system for managing the records for prenatal care of pregnant women. In addition to that, the system can also manage the schedule of all pregnant women through SMS notification. It is exclusively designed for the midwives of the Rural Health Unit of Estancia and pregnant women in the identified community.

e.   SK Information System

The SK Information System is a web-based system designed to manage all SK officials' records, as well as an information system aimed at the youth of Brgy. Tanza.SKIS is capable of recording and storing large amounts of data for extended periods of time. It generates monthly reports and notifies all registered kabataan members.

f.   Vaccination System

This system is capable of storing and retrieving data from COVID -19 individuals. A tool for displaying information and generating reports about an individual and their vaccination details, as well as for reliable and fast data collection.

g.   Computer Hardware Assembly and Troubleshooting

The process of building a computer from scratch by integrating multiple hardware devices into one working system.This is a training course that teaches participants how to disassemble a computer system, identify computer components and accessories, assemble, and test the computer system.

The process of diagnosing and solving computer errors or technical problems. It will teach the participants on how to identify common computer system problems, basic troubleshooting procedures and tools, safety hazards associated with working with electronic equipment, and how to install and effectively use command-line functions and utilities to manage the operating system.

h.   Desktop Publishing and Photo Editing

Desktop publishers use computer software to produce publication-ready material such as books, business cards, calendars, magazines, newsletters, newspapers, packaging, slides, and tickets. Moreover, Adobe Photoshop is software that is extensively used for raster image editing, graphic design, and digital art. It makes use of layering to allow for depth and flexibility in the design and editing process, as well as provide powerful editing tools. This program will equip with an appreciation of the printing process through all of the printing stages. It will also gain a sound working knowledge of various graphic and layout software programs.

With this, the participant will have the opportunity to learn how to create brochures, business cards, greeting cards, web pages and posters using desktop publishing software, as well as create and edit images in graphics design. Adobe Photoshop and MS Publisher is the software program that will be used in the training.

Figure 3 shows the presentation of output from various stakeholders.

4. CONCLUSIONS

The purpose of this study was to investigate and assess the needs of the residents of Barangay Tanza, Estancia, Iloilo. According to the findings, Barangay Tanza is in need of support and would like to get training in order to assure development and improved quality of life, particularly in terms of using ICT. ICTs acquire significance only when people utilize and implement them for specific ends. The most immediate and direct benefit of ICT programs on people's well-being, according to the study, is personal empowerment of the most marginalized groups, where newly learned ICT skills create a sense of success that considerably enhances their self-esteem. As a result, participation in an ICT program is required. ICT utilization will eventually improve people's communal learning experiences. In today's technologically advanced environment, it also aids in the development of a successful career.

5. RECOMMENDATIONS

It is suggested that community extension program strategic planning activities be made in order to address some actions that may help to continue and sustain the program. Training activities and programs should be carefully organized to match the community's needs, and a long-term extension program should be established. To measure the program's influence on the community, it should be monitored and evaluated on a regular basis. To better strengthen partner communities, more extension programs should be implemented.

6. REFERENCES

[1]. Lim, Patricia Kim-Chooi (2011). *The Role of Academic Publications in Community Service.* International e-Journal of Science, Medicine & Education, 5(1), p. 1.

[2]. Laguador, J. M., & Chavez, N. H. (2013). *Assessment Of Engineering Students' Acquired Affective Learning From Involvement In Community Extension Services.* Academic Research International, 4(3), 188-197

[3]. Taylor, T., & Brunson, M. (n.d.). *Community needs assessments.* Learning to Give. Available at https://www.learningtogive.org/resources/community-needs-assessments

[4]. Ginavee F. Dapula. (2021). *The Perceived Effects of Community Development Programs on Students of the University of Santo Tomas.* PREO Journal of Business and Management, 2(1), 45-53. Available at https://preo.org.ph/gallery/4article%20-%20dapula.pdf

[5]. UNDP Barbados. (2003), *Information & Communications Technology.UNDP Barbados and the Organisation of Eastern Carribean States (OECS).*Available at: http://www.bb.undp.org/ict.html.

[6]. *Tanza, Estancia, Iloilo profile – PhilAtlas.* (n.d.).PhilAtlas. Available at https://www.philatlas.com/visayas/r06/iloilo/estancia/tanza.html

[7]. Anderson, Cheryl A. (1982). *Computer Literacy: Rationale, Definition and Practices.* Available at https://files.eric.ed.gov/fulltext/ED228983.pdf

[8]. Son, J., Robb, T., &Charismiadji, I. I. (n.d.). Computer Literacy and Competency: A Survey of Indonesian Teachers of English as a Foreign Language. *Computer-Assisted Language Learning-Electronic Journal (CALL-EJ)*, 12(1), 26-42. Available at http://callej.org/journal/12-1/Son_2011.pdf

[9]. Lorenzo, A. (2016). Effectiveness of the Computer and Internet Literacy Project in Public High Schools of Tarlac Province, Philippines. *TOJET: The Turkish Online Journal of Educational Technology*, 15(2), 38-46. Available at https://files.eric.ed.gov/fulltext/EJ1096459.pdf

[10]. *Vaccines and immunization.* (2019, October 29). WHO | World Health Organization. Available at https://www.who.int/health-topics/vaccines-and-immunization#tab=tab_1

[11]. Ballantyne, A., Gavaghan, C., McMillan, J., &Pullon, S. (2016). Pregnancy and the Culture of Extreme Risk Aversion. *American Journal of Bioethics*, 16(2), 21-23.

[12]. Benham-Hutchins, Marge. (2009). Frustrated with HIT? Get involved!.Nursing management. 40. 17-9. 10.1097/01.NUMA.0000343977.08258.80.

[13]. *Improving Access to Maternal Health Care in Rural Communities.* (n.d.).Center for Medicare and Medicaid Services. Available at https://www.cms.gov/About-CMS/Agency-Information/OMH/equity-initiatives/rural-health/09032019-Maternal-Health-Care-in-Rural-Communities.pdf

[14]. Sullivan, D. D. (2019). *Guide to Clinical Documentation* (3rd ed.). FA Davis Company. Available at https://books.google.com.ph/books?id=SaJmDwAAQBAJ&printsec=frontcover#v=onepage&q&f=false