, , , , ,

Community Development and Divergent Forces in Philippine State Universities and Colleges: Developing a Protocol in Evaluating Extension Projects Towards Community Empowerment

Asia Pacific Journal of Multidisciplinary Research Vol. 4 No.4, 1-8 November 2016 Part II P-ISSN 2350-7756 E-ISSN 2350-8442

www.apjmr.com

Dexter S. Ontoy¹ Rodin M. Paspasan²

¹Center for Research and Development; ²College of Arts and Sciences, Cebu Normal University, Philippines ²paspasanden@gmail.com

Date Received: July 13, 2016; Date Revised: September 26, 2016

Abstract - Divergent paradigms operate in State Universities and Colleges SUCs, which influence the performance of extension projects towards attainment of full empowerment as the ultimate goal implied by the universally-accepted definition of community development. In particular, a livelihood and environment project of Cebu Normal University (CNU) implemented in Caputatan Norte, Medillin, Cebu, Philippines was assessed based on five (5) primary parameters and two (2) secondary parameters. A novel protocol using Delphi Method shows was developed and used for this particular study, which could be adapted in evaluating the performance of community extension projects.

In this particular case, the performance of CNU livelihood and environment project falls between "demonstration" and "community organizing". The evaluation shows that there is still a need to reinforce activities to the ultimate goal. However, it is also implied that the secondary parameters are more robust indicators in assessing the outcomes of the project implementation towards full community empowerment.

Keywords: Community Development, Empowerment, Self-Sufficiency, Dependency, Extension Programs

INTRODUCTION

Paradigms are important foundations in decision making and outcomes. In fact, they are central to the way decisions we make and the nature of outcomes. In community development, a paradigm is very important as it provides a framework for decisions made in a development project and the evaluation of outcomes.

According to Dadzie [1], Community Development is a "development [that] is the unfolding of people's individual and social imagination in defining goals and inventing ways to approach them.... [and] is the continuing process of the liberation of peoples and societies." In this context, community empowerment is central to the formulation and implementation of a project. It is the ultimate goal. Henceforth, it implies that the emphasis of community development paradigm is on the process of implementation to attain this goal.

Likewise, Commission on Higher Education (CHED) has defined extension as the act of communicating, persuading and helping specific sectors and target clienteles to enable them to effectively improve production, community and/or institutions, and quality of life [2]. CHED, in its involvement in agriculture development, awards outstanding extension programs from different HEIs in the country.

On the other hand, SUCs are mandated to "promote and enhance the extension function of HEIs" *viz*. instruction and research functions [3]. The three-fold functions of SUCs, and hence the faculty members as extension workers, provide limited time and resources allocated for extension projects. This hinders attainment of community empowerment since a large portion of faculty members' time and the SUCs' resources are devoted to the performance in instruction and

research. The trilogy of functions in SUCs promotes short-term outcomes-based projects.

Henceforth, these two concepts (community empowerment and SUCs Trilogy of Functions) operate opposite to each other in the SUC context, which I call as Divergent Forces Paradigm (DFP). DFP is used as the framework of this study. Within this context, a fundamental question needs to be addressed: Would community empowerment be maximized given the divergence of community development paradigm and the SUC trilogy of functions?

Responding to this question is very essential in that SUCs are obligated to fulfill these three-fold functions, yet it is also important for them to promote the universally-accepted definition of community development (*i.e.* community empowerment) through meaningful extension projects. Determining the influence of the movement between these two paradigms would determine the project's performance, *i.e.* either promoting self-sufficiency or dependency.

In addition, university community engagement through service learning fails to impact on community change because insufficient attention is paid to genuine engagement (listening to the community; enhancing local resources, critiquing power relations, reciprocity) [4].

In particular, this study focuses on the Livelihood and Environment (bio-intensive organic gardening) Extension Project under the E-HELP (Education, Health, Environment, Livelihood, and Peace) Program of Cebu Normal University. This project is aimed at providing economic alleviation and enhancing health conditions of the people of Caputatan Norte, Medillin, North of Cebu through the implementation of a bio-intensive gardening method[8].

This study assessed the performance of the Livelihood and Environment (bio-intensive organic gardening) Extension Project of Cebu Normal University based on the universally-accepted definition of community development—i.e. developing communities that are self-sufficient and self-reliant (community empowerment).

This question was answered using two types of parameters: 1) extension styles employed on the priority or primary parameters (i.e. Development concept of Extension, Program Objectives Formulation, Project Objectives Formulation, Program/Project Phases, and Evaluation Plan); and 2)

outcomes of the secondary parameters relative to the objectives of the extension project. It provides hypothetical outcomes by shifting the emphasis between the Community Development Paradigm (represented by the primary parameters) and the SUCs Trilogy of Functions (presented by the secondary parameters).

OBJECTIVES OF THE STUDY

The two forces operating in Philippine State Universities and Colleges (SUCs) are situated in opposite poles, exerting influence and push the performance of an extension project towards community empowerment at one end, and dependency at the other end. Hence, the tag-of-war between these forces pushes the performance within the outcome-Process continuum, or dependency—self-sufficiency continuum. This is called as the Divergent Forces Paradigm in Community Development.

University extension must be constantly monitored for success, and pro-actively implemented [5]; be regularly evaluated to ensure relevance and effectiveness [6]. To do away with community outreach and dole out programs, HEIs must strengthen and widen network with various governments and non-government organizations and must enhance instruction-research-extension linkage [7].

Thus, apart from evaluating the performance of this particular project, this study provides a new protocol with which other extension projects may be evaluated using the *Divergent Forces Paradigm*.

MATERIALS AND METHODS

The end result of the tag-of-war of these two forces was measured using both the priority (or primary) parameters, and the secondary parameters. In particular, this study focused on five priority or primary parameters: 1) Development concept of Extension; 2) Program Objectives Formulation; 3) Project Objectives Formulation; 4) Program/Project Phases; and 5) Evaluation Plan. On the other hand, the evaluation of the secondary parameters was focused on two indicators of actual community involvement: 1) Household Involvement in the Project Implementation and 2) Community Participation in future activities.

Both the primary and secondary parameters indicate the performance of the extension project as a whole. The performance is measured by the stage of community development that it promotes. Based on

the universally-accepted paradigm of community development, the extension styles the program/project promotes could be translated into any of the four (4) stages of community development, from dependency to self-sufficiency (UN PCV 2005), as follows: 1. Direct Service, 2) Demonstration, 3) Organizing with Others, and 4) Indirect Service.

In State Universities and Colleges, as like other HEIs, the Trilogy of Functions (Instruction-Research-Extension) is one paradigm which strongly influences the emphasis of extension projects. Given the bulk of time and resources required to fulfill all the three functions, it promotes extension activities which emphasizes on outcomes. On the other hand, the universally-accepted definition of community development is to promote community empowerment [3], which focuses on the process.

Community empowerment as promoted by the UN PCV (2005) emphasizes on the process to attain its ultimate goal of community empowerment, and considers participation as a *means* (or process). In contrast, the SUC's Trilogy of Functions is rather straightforward and it emphasizes on the outcomes. It treats participation as an *end* (or outcome).

Evaluation Framework of Primary and Secondary Parameters

Five (5) extension workers who were trained on community development (they serve as experts for this process) were gathered. The process of scoring employed the Delphi technique. Based on the UN PCV framework shown in Figure 2, the rubrics shown in table 1 were used. The rubrics served as guide for the experts in scoring the primary and secondary parameters. Generally, the scoring was capped at 3 rounds max, when majority of the experts reached one particular score, with variance no more than 1 standard point. The largest variance was only 0.50 (standard deviation less than 1.0) attaining close to uniform scores from five (5) experts.

Computing for the Composite Score of Primary Parameters

The computation for the composite score of the primary parameters is given by:

$$Y_1 = \alpha X_1 + \beta X_2 + \gamma X_3 + \delta X_4 + \varepsilon X_5$$

Where:

 $\begin{array}{ll} Y_1 = composite \ score \ of \ primary \ parameters \\ X_1 = Development \ concept \ of \ Extension, & \alpha = 0.10 \\ X_2 = Program \ Objectives, & \beta = 0.15 \\ X_3 = Project \ Objectives, & \gamma = 0.15 \\ X_4 = Program/Project \ Phases, & \delta = 0.30 \\ X_5 = Evaluation \ Plan, & \varepsilon = 0.30 \end{array}$

Table 1. Rubrics Used in Evaluating Performance of Primary and Secondary Parameters.

Rating	Project Performance based on Extension Style	Description (based on the IEC for the United Nations)
4	Indirect Service	The volunteer responds to a range of situations and problems raised in volunteer work by helping others solve their own problems; the volunteer does not direct any of the work but concentrates on helping the people define and refine their perceived need. Help is given only on request, rarely initiated by the volunteer. The volunteer may even come and go, leaving the project to do something else and thus reinforcing the autonomy of the group. The way the volunteer works is primarily clarifying, asking questions, listening a lot, and facilitating.
3	Organizing with Others	The volunteer encourages and stimulates promising counterparts and others in the community, generally-although not always-working with people rather than directly on projects. The focus is on building leadership and helping a group or organization develop which will continue the work, the primary work is behind the scenes using influence, assisting as a resource in developing alternative solutions which the people choose or generate themselves, serving in a training capacity, occasionally serving as a model in doing work, and so on.
2	Demonstration	The volunteer spends most of the time demonstrating to others how to do something, but also spends a lot of time doing it him/herself. Most often the responsibility is shared with one or two counterparts. The work is a combination of direct service and training /demonstrations, often with the volunteer sharing some responsibilities with a promising local leader or an assigned counterpart.
1	Direct Service	Volunteer mostly does the work, gets a project organized, provides a needed service where none exists, and generally takes the initiative for making things happen. In most instances, this means that the volunteer takes responsibility for the action – and even if involved, will look to the volunteer for action and leadership.

Computing for the Composite Score of Secondary Parameters

The computation for the composite score of the secondary parameters is given by:

$$Y_2 = \lambda X_6 + \varphi X_7$$

Where:

 X_6 =Household Involvement in the Implementation $\lambda = 0.60$ X_7 = Community Participation in future activities $\phi = 0.40$

The coefficients of X_i (i=7) was determined by first ranking the parameters (5 items for primary parameters, and 2 for secondary parameters). The ranking was done with extension workers who were knowledgeable on community empowerment who served as "experts", using the Delphi technique.

Computing for the project performance: The Outcome-Process Frontier

The performance (Z_i) of the extension project was determined by aggregating the composite scores of Primary (Y_I) and Secondary Parameters (Y_2) , and is given by:

$$Z_i = Y_1 + Y_2$$

Where:

 Z_i = Project Performance based on Extension Style, i = 5

Five different performances are represented by the varying emphasis between primary and secondary parameters, as follows:

 $Z_i = Y_1$ (100% primary parameters composite score)

 $Z_2 = 0.75Y_1 + 0.25Y_2$

(75% primary and 25% secondary)

 $Z_i = 0.50Y_1 + 0.50Y_2$

(50% primary and 50% secondary)

 $Z_4 = 0.25Y_1 + 0.75Y_2$

(25% primary and 75% secondary)

 $Z_i = Y_2$ (100% secondary parameters composite score)

The computed Z_i of the project determines its performance as situated within the dependency—self-sufficiency continuum.

RESULTS AND DISCUSSION

The results show that the extension styles employed are either "demonstration" or "community organizing", with several components showing temporary impacts towards empowerment. Table 2 shows the development concept of the extension worker of the project.

The development concept of extension workers is not clearly defined towards community empowerment. For example, while they support the idea that the community's needs must be given preference, they also embrace imposition of what should be the development for the local community by strongly agreeing on the statements which signify top-down approach.

Table 2. Development Concept of Extension Workers (X₁)

Items	Mean*	Project Performance based on Extension Style
1. A development worker should proceed with vegetable garden and school construction projects which	1.20	Demonstration
most people's 'real' needs, even though the need they themselves feel and express may be different (negative statement).	(± 0.447)	(lower bound)**
2. A development worker's views should be responsive to the local people's expressed needs instead of the central governments, no matter what the difference may be.	3.80 (±0.447)	Indirect Service
3. The world hunger situation mandates rapid change which can only be affected by using the best available agricultural technologies (<i>negative statement</i>).	2.00 (±0.707)	Demonstration
4. It is more important to help develop local leadership, working with one or two people who will carry on, than to get a lot of project work done which depends on volunteer knowhow and drive.	3.80 (±0.447)	Indirect Service
5. the most effective volunteer is the one who understands his host community's weaknesses and helps the people to understand (them) by reasoning rather than any imposition from above.	3.80 (±0.447)	Indirect Service
6. Providing agricultural and health education in schools is a more effective means of unlocking the	1.20	Demonstration
seemingly hopeless developmental problems of the third world than attempting to change adult attitudes	(± 0.447)	(lower bound)**
and ideas which have been deeply ingrained through years of experience (negative statement).		
MEAN	2.63	Community
	(± 0.274)	Organizing

^{*}scoring system of negative statements is opposite.

^{**} impact of the extension style is temporary. When the community is left by themselves will return to default state.

Table 3. Development Orientation of Program Objectives (X₂).

		Project Performance
Program Objectives	Mean	based on Extension Style
1. Demonstrate reliance in initiating appropriate solutions to problems arising	1.80 (±0.447)	Demonstration
from education, health, environment, livelihood and peace.	from education, health, environment, livelihood and peace.	
2. Uplift quality education in terms of improvement in education indicators.	$1.80 (\pm 0.447)$	Demonstration
3. Reinforce knowledge and skills of uneducated community people.	$2.00 (\pm 0.707)$	Demonstration
4. Demonstrate independent delivery of education among community people.	$1.80 (\pm 0.447)$	Demonstration
	2 20 (+0 447)	Community Organizing
5. Improve health status of community people.	$2.20 (\pm 0.447)$	(lower bound)*
6. Enhance health-seeking behaviors of the community people.	$1.80 (\pm 0.447)$	Demonstration
7. To equip community people with environment-friendly practices.	$1.80 (\pm 0.447)$	Demonstration
8. To instill knowledge and awareness on environmental protection.	$1.60 (\pm 0.548)$	Demonstration
9. To equip and hone economically-needed skills of the community people in	$1.80 (\pm 0.447)$	Demonstration
aid to augment household income.		
10. To increase the marketability of the community people in job hunting.	$2.00 (\pm 0.000)$	Demonstration
11. To maintain a peaceful and harmonious environment that is conducive for	$2.80 (\pm 0.447)$	Community Organizing
healthy human living interaction.		
MEAN	1.93 (±0.277)	Demonstration

^{*}impact of the extension style is temporary. When the community is left by themselves will return to prior stage.

On the other hand, program objectives reflect the extension styles promoted with regards community development, as shown in Table 3. Almost all of the objectives were geared towards the second stage of development – demonstration.

Among the 11 objectives of the E-HELP Program, two (2) promoted communities organizing which will develop the local strength towards community empowerment. However, one objective shows rating at the lower bound, meaning that sustainability in this aspect cannot be assured. This stage still has the tendency to go back to the lower stage if it will not be re-enforced to give emphasis on the process.

With regards the development orientations of the project objectives, it is interesting to note that the project has succeeded in encouraging community organizing, as shown in table 4.

Table 4. Development Orientation of Project Objectives (X_3) .

	Project Objectives	Mean	Project Performance based on Extension Style
1.	Household Involvement in the Project Implementation	3.00 (±0.707)	Community Organizing
2.	Community Participation in future activities	2.80 (±0.447)	Community Organizing
	MEAN	2.90 (±0.418)	Community Organizing

In both objectives, experts agreed that the project promoted community organizing. This is supported by the fact that the extension workers focused on developing local capability by identifying and training a local leaders (identified as Animators) who are expected to lead the community towards full empowerment. But still, this performance does not yet warrant indirect service provisions given that CNU extension workers still provide significant amount of time and resources.

With regards the implementation of the project, different stages took varying styles but dominated by the demonstration extension style (Table 5).

The implementation of the project promotes demonstration, which do not necessarily result longterm community empowerment. Given the nature of the implementation phases, the local community still depends on the existence of the extension workers. What is problematic with this approach is that local intermittently community mav take responsibilities for as long as they see that they are being monitored by the extension workers. Otherwise, efforts from the local leaders may not be sufficient to affect sustainable community organizing. However, this can also be sustained depending on the commitment of the local leaders to bring the whole community towards full empowerment.

Table 5. Development Orientation of Implementation Phases (Y.)

Phases (X_4) .		
Phases	Mean	Project Performance based on Extension Style
1. Survey of the Area/Sitio for BIG by the extension workers	1.20 (±0.447)	Demonstration (lower bound)*
2. Building a Nursery for the Seedlings by extension workers and identified local leaders	1.80(±0.447)	Demonstration
3. Plant Identification by extension workers	2.00 (±0.707)	Demonstration
4. Classification of Plants extension workers	1.80(±0.447)	Demonstration
5. Planting of the Identified Plants in "Bio-Intensive Garden" (BIG) in the nursery extension workers and local	2.20(±0.447)	Community Organizing (lower bound)*
6. Harvesting of Plant 7. Marketing of	3.20(±0.447) 3.80(±0.447)	Indirect Service (lower bound)* Indirect Service
Plants MEAN	2.29 (±0.267)	Community Organizing (lower bound)*

^{*} impact of the extension style is temporary. When the community is left by themselves will return to default state.

Related to the preceding discussion, local communities still need to be continuously monitored to initiate community organizing. Table 6 shows the extension performance of the project evaluation plan wherein the local community is capable of community organizing, but with effective monitoring by the extension workers. In the absence of such monitoring, local community still have the tendency to go back to dependency. To abate such scenario, there is a need to reinforce emphasis on the process to push the local community towards self-sufficiency and empowerment.

Table 6. Development Orientation of Evaluation Plan (X_{ϵ}) .

Phases	Mean	Project Performance based on Extension Style
A periodic monitoring of the planting time, growth and harvesting will be done by extension workers in the duration of and until the termination of the project	2.20 (±0.447)	Community Organizing (lower bound)*

^{*} impact of the extension style is temporary. When the community is left by themselves will return to default state.

For the secondary parameters, the objectives of the project are: 1) to teach the bio-intensive gardening method to the local community, and 2) to provide additional income through community gardening. In these objectives, the project extension performance fall within the "demonstration" stage, with the first objective attaining a mean score of $1.20(\pm 0.447)$ (X_6) and the second objective with mean score of $1.80(\pm 0.447)$ (X_7). The first objective has the tendency to revert to direct service (and hence promotes dependency among the local community) if not to be reinforced with an emphasis on the process where local community provide counterparts.

In totality, the composite performances of the parameters are shown in **table 7**. The composite performance of the primary parameters was towards community organizing, albeit in the lower bound. On the other hand, secondary parameters fall short in that they encouraged community dependency, with a rating falling within the "demonstration" stage.

Table 7. Composite ratings of primary and secondary parameters.

Parameters	Composite Rating	Project Performance based on Extension Style
Primary	2.34	Community Organizing (lower bound)*
Secondary	1.44	Demonstration (lower bound)*

^{*} impact of the extension style is temporary. When the community is left by themselves will return to default state.

Both primary and secondary parameters provided extension services in which extension workers

demonstrated to the local communities how things were done. This is apparent with the fact that they were the ones who actually did most of the work, and sharing some workloads to animators who are viewed as the counterpart from the local community.

Depending on the weights given to primary and secondary parameters, the project performance ranges from "demonstration" (the extension workers are mainly responsible for the work) and "community organizing" (the community is mainly responsible for the work). Nevertheless, the project has not reached the stage where should provide indirect service to promote full community empowerment, as shown in Table 8.

Table 8. Project Performance taking into account weights

of primary and secondary parameters.

Varying combinations	Project		
of emphasis between	Project	Performance	
primary and	Rating	based on Extension	
secondary parameters		Style	
		Community	
Z_1 (100% Primary)	2.34	Organizing (lower	
21 (100% 11111111)		bound)*	
7 (750) Diament		Community	
Z_2 (75% Primary and	2.11	Organizing (lower	
25% Secondary)		bound)*	
Z_3 (50% Primary and		,	
50% Secondary)	1.89	Demonstration	
Z_4 (25% Primary and			
75% Secondary)	1.66	Demonstration	
Z ₅ (100%	1 44	Demonstration	
Secondary)	1.44	(lower bound)*	

by themselves will return to default state.

If full weights were given to secondary parameters, the performance of the project leans towards encouraging dependency through emphasis on direct services. On the other hand, if full weights were allocated on primary parameters, the project performance leans towards community organizing (at the lower bound) as the maximum extension style it emphasized. Either way, the project performance fell short of the ultimate goal of the universally-accepted definition of community development. This implies that the project formulation and implementation still need to give more emphasis on the process from which full community empowerment will be attained.

Personal communications with extension workers and the director of CNU extension program provide empirical evidences of the target community's (i.e.

Barangay Caputatan Norte) capability in community organizing (where the community is responsible for the work) as evidenced by the awards they received for participating in various events that are linked with this extension project, such as the E-GWEN (expanded Green and Wholesome Environment that Nurtures, a development project of the Cebu Province and Ramon Aboitize Foundation, Inc. or RAFI) award as Outstanding Barangay under the Clean and Green Project, and other awards given by the Municipality of Medillin during the Nutrition Month held last July These are manifestations of effective 2012. community organizing by the local leaders. However, there is still a need to monitor progress of the community and re-enforce more activities focusing on the project processes that would involve the community to reach the height of self-sufficiency and self-reliance.

The strength of the Caputatan Norte community organizing, however, may not sustainable because activities focusing on the process still needs to be re-enforced in order to push the local community further towards full empowerment. Otherwise, all efforts may be put in vain since a change in leadership may revert back the community into the Demonstration stage in the absence of an effective leadership, with only the identified animators continuing on with these activities.

In a larger context, the emphasis on top-bottom approach used in extension works in the Philippines is reflective of the policies the country has promulgated * Impact of the extension style is temporary. When the community is left and enacted. For instance, SUCs are mandated to "(m) to establish research and extension centers of the SUC where such will promote the development of the latter;"... "(u) to set up the adoption of modern and innovative modes of transmitting knowledge such as the use of information technology, the dual system, open learning, community laboratory, etc., for the promotion of greater access to higher education.." (RA 8292). These provisions are focused on the development of the SUC and the transmission of information from SUCs, which clearly manifests a top-down approach when extension works are carried out in communities. The performance of the Biointensive gardening based on the development paradigm used in this study is a reflection of such mandate.

CONCLUSION

The force which is exerted by the emphasis of SUCs on the Trilogy of Functions (competing demands to simultaneously perform on Instruction, Research and Extension) is more evident than the force towards attaining community empowerment. The Livelihood and Environment Extension Project fell short of promoting complete autonomy (selfreliance, and hence full empowerment). However, the project successfully inculcates community organizing as the strength of the target community, albeit in the short term. There is a need to en-enforce the activities implemented for the community to be fully empowered. Furthermore, the protocol developed in this study can be used in evaluating any community extension projects to determine its success towards community empowerment.

RECOMMENDATION

The importance of this assessment is primarily to provide venues for improvement to attain full community empowerment. In this regard, there is a need to re-orient extension workers on the universally-accepted definition of community development. This is crucial because the mindset of the extension workers prior to entry to local communities will strong influence how the project would go about. The ultimate goal should be towards full community empowerment, rather than merely organizing the community.

Development orientation of the community must be pushed further towards community empowerment. The program should take the bottom-top approach, soliciting from the community what they feel they need, rather than deciding and imposing what the implementers feel the community needs.

The project should encourage community views on how the project should be implemented, rather than imposing on them what they need to learn. The project should explore gardening and planting techniques which the local communities have been practicing, and capitalizing on it so that local communities will feel that they own the project, and hence encouraging community dynamics towards full empowerment.

Actual implementation of phases of the project should move beyond mere demonstration and community organizing. There is a need to provide activities focusing on processes so as to ultimately sustain the project even with minimal indirect assistance from the extension workers and CNU as the implementer.

Monitoring and progress of the project should be done by the local community to assess the performance of their gardening. In this way, they will be able to find ways on how to improve their practices. Ultimately, the local community will be empowered to carry on the project without external intervention.

REFERENCES

- [1] Dadzie, D.D., 2005. Community Development Concept and Definition. (United Nations International Economic Cooperation).
- [2] CHED Memorandum Order No. 08 S. 2008. Guidelines for the CHED Outstanding Extension Program Award. Commission on Higher Education. DAP Bldg., San Miguel Ave., Ortigas Center, Pasig City.
- [3] RA 8292," Higher Education Modernization Act of 1997 "
- [4] Mahlomaholo, S & T Matobako 2006. Service Learning in South Africa Held Terminally Captive by Legacies of the Past. *Alternation*, Vol.13, Number 1, pp. 203 217.
- [5] Berrio, A. A., & Henderson, J. L. (1998). Assessing customer orientation in public, non-profit organizations: A profile of Ohio State University Extension. *Journal of Agricultural Education*, 39(4), 11-17.
- [6] Quimbo, E. M. (2013). Extent of Extension Services Delivery in Tertiary State Technological Institutions of the Philippines. IAMURE Multidisciplinary Research Journal, Vol. 6.
- [7] Lero, Ruel, F. (2010). Deconstructing the Concept and Operationalization of Extension as a Function of Higher Education Institutions in the Philippines. Laguna: UPLB. Unpublished doctoral dissertation.
- [8] Laplap, F., V. Araneta, ML. Abaquita, R. Generalao, and R. Paspasan. 2009. Bio-Intensive Organic Gardening for Caputatan Norte, Municipality of Medillin, Cebu Province: An extension project proposal.

COPYRIGHTS

Copyright of this article is retained by the author/s, with first publication rights granted to APJMR. This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license(http://creative commons.org/licenses/by/4.