

**Proposal for a [Paper Presentation / Panel Presentation / Poster Presentation]**

**SERVICE-LEARNING PEDAGOGY IN TEACHING-LEARNING PROCESS  
AND ITS IMPLICATION TO THE COMMUNITY**

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**Abstract:**

*Development of lifelong skills is one of the raging issues in Philippine education and even in other countries nowadays. All are expected to develop competence in different jurisdictions. These skills are the foundation of education and can be used as determinant for students' achievements. Transfer of learning takes place when it is effectively and continually used in a new set of learning scheme. Aside from the teaching-learning issues that educators are facing nowadays, there is another giant problem that the country, and even the world is facing at present. This is called environmental degradation. According to Skye (2015), the primary cause of environmental degradation is human disturbance. Communities' awareness of environmental issues is shallow. Offering of Environmental Science in some of the college courses and including environmental issues as part of regular subjects are some of the strategies that schools are doing in order to help in the environmental protection advocacy of the government. Environmental Science subject aims to give students the skills necessary to address environmental issues. But does every Environmental Science subject leave impact to the community? Grouped within the motif of active teaching-learning process and civic engagement, and community awareness, service-learning pedagogy is one of the promising pedagogies in teaching science subjects nowadays. By combining academic theory with practical real-life experience, service-learning provides students with a broader and deeper understanding of the course content. It fosters their sense of civic engagement, and sharpens their insights about themselves and their place in the community. Application of specific concepts and theories can be best learned through service-learning activities (Robinson, 2007).*

*This study aimed to test the effectiveness of the Service-Learning Model as a teaching-learning strategy in science subject and its implication to the community. There are two main theories that served as the backbone if this study. First is the Constructivism theory of knowledge which argues that humans generate knowledge and meaning from their experiences. Second is the experiential learning theory which states that abstract learning is easier to grasp*

when it is rooted in practical experience, and the experience itself is enriched when it is linked directly with learning. These two theories are integral for designing service-learning programs and activities since Service-Learning is a pedagogy that allows students participate in a service experience through reflection and integrate abstract concepts learned in the classroom to actively understand their experiences. Guided by these philosophies, the researchers postulate that performance of students hinges on solid knowledge on how students learn by gathering from different ways of learning through exposure, thus design guided service-learning activities.

This study utilized quantitative research method in two different ways. First is by using the quasi-experimental research design using the pretest and posttest to determine the effectiveness of the intervention made in teaching environmental science. On the other hand, descriptive survey was utilized along the environmental awareness and practices of the barangay residents. In order to gather the necessary data in this study, the researcher made use of teacher-made test, and a survey questionnaire. Thirty (30) students enrolled in Environmental Science and eighty nine (89) barangay residents became the respondents of this study. The data on environmental knowledge of the students and environmental awareness of the barangay residents were condensed through frequency counts and average weighted mean. Students' reflections were rated using the rubric that was condensed through frequency counts and average weighted mean. The data on the significant difference on the level of environmental knowledge of the students before and after the implementation of the service learning activities were treated with *t*-test. And lastly, after series of information drive and lectures in the community, the data on the significant difference on the level of environmental awareness and practices of the barangay residents before and after the activities were treated with both chi-square and *t*-test.

On the result along the level of knowledge of students on environmental science during pretest is found to be average, which, it became high during the posttest. Further, the level of environmental awareness of the barangay residents before the conduct of service-learning activities is 3.27 with a descriptive rating of Somewhat Aware. The level of environmental practices of the residents has a weighted mean of 2.21 with a descriptive value of Rarely Practiced. In terms of the level of performance of students in the formative evaluation using the service-learning model, students' performance got a mean of 3.6 with the descriptive value of Superior. There is also a significant difference on the level of students' environmental science knowledge before and after the service-learning activities. In terms of the difference on the level of environmental awareness and practices of the residents before and after the activities, the following are the findings: 1) residents prefer to dispose their kitchen wastes, paper and card boards, and used plastic products into dumpsites before and after the activities; 2) residents have changed their preferences of throwing their used metal products and glasses from dump trucks to reuse/recycle. It was found that that there is no statistically significant difference between observed and expected results; the respondents equally prefer disposing their kitchen wastes using dump trucks after the implementation of the service-learning activities. On the other hand, the rest of the items have an evidence of change after the implementation of the said activity. In terms of awareness and general environmental practices, the study shows that there is a significant difference between the environmental awareness and practices of the residents before and after the conduct of the activities.

From the findings of the study, the researchers concluded that service-learning activities are effective in increasing the knowledge of students on environmental science lessons. It is also

*concluded that Service-Learning programs and activities helped the people in the community to increase their environmental awareness and practices. It is also important to note that this study wishes to point out that students are also members of the community, proper training and mind-set are necessary for them to become responsible citizens of their community in the future, thus, empowering the students are also empowering the community. It is also noted through random interviews that the people in the community acknowledge the benefits from the service-learning activities in their community. Therefore, service-learning pedagogy helped students in improving their performance in the subject. Furthermore, because of high ratings of formative evaluation and reflections of students in their service-learning activities following the PART model, the community awareness and civic consciousness of students were further achieved, this is on the condition that the implementation is properly monitored and to take note that the activities should satisfy the needs of the students, teacher, and even the community.*

**Keywords:** Service-learning, environmental science instruction, community awareness

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## **Biographical sketch of each presenter**

Please send the biographical sketch of the presenters together with the proposal using the following format:

### **Presenter 1:**

- i. Cacho, Manelyn Ignacio
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- iii. Short biography (word count should not exceed 70 words)

Dr. Manelyn I. Cacho is the Asst. Director for Research, Extension, and Service-Learning and concurrent coordinator for Service-Learning Program of Union Christian College, Philippines. She is a professor in College Department and Master of Arts in Education. She finished her Doctor of Philosophy in Science Education in 2016, Master of Education in 2011 and Bachelor of Secondary Education major in General Science in 2005.

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Dr. Cherrel G. Ignacio is the Dean of the School of Education, Arts & Sciences of Union Christian College, Philippines and currently teaching professional education courses and natural sciences. She finished her Doctor of Philosophy in Science Education in 2009, Master of Arts in Science Education in 2003, and Bachelor of Secondary Education in 1994.

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Dr. Marilou L. Agustin is the current Vice-president for Academic Affairs of Union Christian College, Philippines. She is a graduate of Doctor of Philosophy major in Educational Management. She believed in principle “I could make a difference in the little world where I moved,” which reminded her each moment to be of service to students, personnel and stakeholders.

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