
La educación ambiental comunitaria una propuesta pedagógica desde la Universidad

The community environmental education as a pedagogical proposal from the university

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Recibido: 10 de julio de 2024

Revisado: 13 de septiembre de 2024

Aceptado: 01 de octubre de 2024

RESUMEN: La presente crisis ambiental evidencia la necesidad de unir esfuerzos para salvaguardar todos los ecosistemas. Por tanto, el Ministerio de Educación Superior presta atención a la importancia de la educación ambiental comunitaria. La investigación tuvo como objetivo proponer talleres para la educación ambiental en comunidades del municipio de Imías, provincia de Guantánamo como una experiencia que contribuye al desarrollo local. Se obtuvieron resultados satisfactorios en la ejecución de los talleres propuestos, según la metodología utilizada, que permitió fortalecer la relación entre los agentes y las agencias de la sociedad, la actuación responsable y la participación activa, mediante la integración universidad-comunidad.

Palabras clave: Educación ambiental; Desarrollo sostenible; Medio ambiente; Sostenibilidad

ABSTRACT: The present environmental crisis highlights the need to join efforts to safeguard all ecosystems. Therefore, the Ministry of Higher Education pays attention to the importance of community environmental education. The objective of the research was to propose workshops for environmental education in communities of the municipality of Imías, Guantánamo province as an experience that contributes to local development. Satisfactory results were obtained in the execution of the proposed workshops, according to the methodology used, which allowed strengthening the relationship between agents and agencies of society, responsible action and active participation, through university-community integration.

Keywords: Environmental education; Sustainable development; Environment; Sustainability

Introduction

The century that is passing frames an ascending deterioration of environmental conditions at planetary level, causing concerns to all humanity. Cuba's representation in the main world meetings

to discuss criteria and agree on actions in favor of the environmental issue are fundamental pillars and premises of environmental education from the community level.

Cuba's socioeconomic transformations require, among its many aspects that the university be in line with the historical moment in which the country is developing and with the most pressing objectives of society, the adaptation to the impacts of climate change in the communities.

In this direction, the prevailing pedagogical model in Higher Education Institutions (IES), constitutes a facilitator of the process of decentralization of environmental knowledge at national, regional and local levels. At the same time, it guarantees that it has sufficient capacity to demystify the scientific-technological, academic and intellectual, which guarantees the channeling of social and institutionally accumulated knowledge, for the treatment of community environmental education.

It is considered that: "...the university as a generator and disseminator of knowledge must define its role as a manager of local development, which would respond to the third mission that contemporary society has assigned to it" (González, 2013, p. 3-4).

The Ministry of Higher Education (2017) included in the strategic planning an objective aimed at:

Achieve an impact of the integrated university processes (undergraduate, graduate, cadre improvement, university extension, research and innovation, in the central headquarters and CUM) on local economic and social development, consolidating the university as a strategic ally of governments in the strategic management of local development and in the achievement of a solid economic-productive base. (p. 10)

This objective demands the link between the university and the community, and at the same time favors institutional coherence.

From this perspective, education must contribute to the improvement of environmentally friendly social relations as established by the sustainable development goal number four of the 2030 Agenda, "Ensure inclusive, equitable and quality education and promote lifelong learning opportunities for all" (United Nations Organization, 2015, p. 5).

The demands of the University at the present time from its extensionist process and its systemic relationship with environmental education, still denote insufficiencies that limit the scope of community environmental education in inhabitants of the municipality of Imías. Therefore, the

objective is to propose environmental education workshops in communities of the municipality of Imías, Guantánamo province, as an experience that contributes to local development.

Development

Community environmental education becomes a vital process in the current conditions for the rescue of knowledge that will favor the search for solutions to environmental problems, through the commitment, actions and participation of its inhabitants in decision making.

The Intergovernmental Conference on Environmental Education, Tbilisi (1977), became the most revealing event in environmental history, since it established the following:

- The interdisciplinary nature of environmental education. The orientation towards the community, in a context of solidarity, and to be imparted to people of all ages and educational levels, from formal, non-formal and informal education.
- The purpose, objectives and principles of environmental education with influence towards the community.
- The imprint of raising awareness, changing attitudes and providing new knowledge that promotes community participation to minimize environmental problems.

This summit ratifies the importance of environmental education, based on the pedagogy of action and for action, where the guiding principles are the understanding of the economic, political and ecological articulations of society in order to understand the environment as a whole.

In this sense, Law No. 150 of the Natural Resources and Environment System, states that:

(...) continuous and permanent process, constitutes a dimension of the integral education of all citizens and communities, oriented to the acquisition of knowledge, development of habits, skills, abilities, capacities and attitudes in the formation of values, which favor the adoption of new lifestyles and consumption practices, compatible with sustainable development. (National Assembly of Popular Power, 2023, p. 79).

This definition, exalts knowledge, skills, habits, attitudes and values as basic elements, its deeply ethical sense to contribute to the environmental education of the people in the communities, in order to adapt, be resilient, and thus be able to face the present and future environmental challenges, in function of sustainable development.

Such arguments demonstrate the need for community environmental education of the inhabitants from the link between the university and the community, so that environmental education urges the creation of new spaces for exchanges of knowledge in terms of dialogue around the environmental

reality from a systemic and interdisciplinary vision, for the reorientation of individual, group, local and global actions for the good of all.

Community environmental education is understood as:

An educational process schooled or not, oriented to the appropriation of knowledge, habits, skills, abilities, attitudes, values that allow the responsible behavior of the villagers, from a humanistic position that enhances communication, dialogue and participation to achieve environmental sustainability of a given community.(Sebastiana, 2018, p. 27-28)

The aspects expressed show the need to put knowledge into practice to minimize the main environmental problems of the communities, through solidarity, responsibility, social coexistence and a new environmental ethics, it is referred that: "Universities can contribute to encourage the local projection of knowledge and innovation, expanding their capacity to promote human welfare in the territories" (Núñez, 2019, p. 99).

In such a way, it insists on the improvement and transformation of the community, where the principles of sustainable development are assumed, in which community environmental education enunciates a transcendental expression of environmental education. Its presence, as a fundamental approach, has shown the need to link all environmental formative processes with the local communities where life develops and where actions of great transcendence towards the achievement of a sustainable future can and should take place (Tréllez, 2015).

Hence, a transcendental task to be performed by the university is the creation of capacities, the training of cadres and the preparation of professionals to contribute to local development, from integrated community work in communities in vulnerable situations.

The university, in the link with other social actors, must take into account the cultural richness, the ancestral knowledge; which are strengths for the transmission of environmental learning to present and future generations, for the care and protection of the environment, in order to contribute to the local development of the municipality.

The municipality of Imías has a Municipal University Center belonging to the University of Guantánamo, Cuba, which in its structure has 9 university careers: Agricultural Engineering, Forestry Engineering, Accounting and Finance, Sociocultural Management for Development, Law Degree, Primary Education, Special Education, Preschool Education and Physical Culture, which favor the treatment of community environmental education.

The municipality is internationally recognized as a semi-arid zone due to its edaphoclimatic characteristics. It has 6 popular councils, 39 districts and 9 communities in vulnerable situations, which justifies the need to pay attention to the work of the university to guarantee the environmental education of its community members.

The workshops were developed with teachers and students of the CUM of Imías based on the Integrated Community Work (TCI) and the participation of the community. The workshops are structured as follows: title, objective, place, participants, methodological guidelines, conclusions and evaluation.

Workshop 1

Title. Science and technology as a function of local development.

Objective: To argue the importance of science and technology in the university-government-business-community integration for community environmental education and local development.

Place: Ranchón "El mangal" Agroforestry Imías

Participants: university students, community leaders, cadres and reserves, MINED and MES professors.

Description: It begins by welcoming the participants with a "Did you know?"

Did you know that the development of a region, a community a country is given by the results of science?

Did you know that technology is the driving force of science?

Orientation of activities and objective.

Steps to follow: The criteria issued by the participants are listened to.

The topics to be discussed are presented and presented by each university student who will explain and present a synthesis of the scientific results of their undergraduate research as a way of contributing to the local development of the careers of Forestry Agronomy and Bachelor's Degree in Primary Education:

1. Evaluation of the Imías beach, with a view to its integrated management.
2. Evaluation of biomass and carbon sequestration in an agroforestry system of the management center "Los Calderos" in the municipality of Imías.
3. Productive response of the pumpkin crop (*Cucúrbita Moschata* D.) to the use of different doses of earthworm humus.

4. Agro-productive evaluation of three varieties of cassava (*Manihot esculenta*, Grantz.) in edaphoclimatic conditions of the municipality of Imías.

5. Integrated management of the Imías river basin.

Each participant expresses what he/she thinks about the topics presented as a way to contribute to local development from science and technology: brainstorming.

Is science necessary?

Which of the impacts of climate change affect the Imiense territory? Do you think that the scientific proposals presented contribute to the adaptation or mitigation of the effects of climate change?

Do you think it is important to apply science and technology nowadays? Argument.

Write down the following idea:

Science and technology in the community is to love the land and contribute to local development.

6. What actions can be carried out in favor of scientific development based on technology at the community level?

This question is answered with the activity: The municipality I aspire to see.

A sheet of paper is given to each participant so that they can write an idea that encourages them to modify ways of thinking and acting in the face of the problems presented by the community, they can refer to how the scientific research developed at the university is materialized in the community, and thus linking technology with science from the community level as a way of contributing to local development.

Then, everyone takes a sheet of paper, folds it and puts it in the "Community Science" mailbox.

Participants take from the mailbox the elaborated ideas and read out loud.

Conclusions: The fulfillment of the proposed objective and the learning acquired by the participants from the importance of science and technique is valued. Participants offer their opinions about the municipality we want to have, valuing the importance of the application of science and technology.

Evaluation: The importance of scientific knowledge is explained from the integration of university-government-business to apply science in terms of local development, participants can express their needs.

Workshop 2

Title: Growing with my people. Growing with my people (family gardens).

Objective: To reflect on the creation of family gardens as an alternative for food production at the community level.

Location: Community Ecological Classroom, PCC Hall

Participants: Villagers, community leaders, cadres and reserves, students, farmers, retirees, housewives, school children.

Description: To begin, a table with different vegetables is presented in the area where the activity will take place, titled "Vegetable Festival". Each child will represent a vegetable and explain the nutritional power of the corresponding one.

Brainstorming will explain why it is so important to implement the Law of Food Sovereignty and Nutritional Education in Cuba.

Steps to follow

A farmer from the community in the company of a professor from the polytechnic of Agronomy describes the importance of creating a family garden.

The farmer presents a recycled bag and explains how he filled it, one part with soil and the other with organic matter, introduced a small amount of water and inserted some vegetable seeds (chili bell pepper, okra) in an organized way, the planted nylons are placed in a place where the sun's rays penetrate for the cultural treatments.

Community participation in the planting of family vegetable gardens is encouraged.

Each participant gives his or her opinion about the family garden or patio:

Two groups are organized according to the participants, integrated according to their interests and vocation.

Group 1: The Producers-----Group 2: The Harvesters

Participants in each group are asked to explain how they would contribute to their family garden.

Exemplify which endemic food of the territory can be planted in their family garden.

When planting vegetables without biofertilizer or biostimulator, what solutions would you look for? Exemplify.

The two groups are instructed to write a message on a card in favor of the importance of obtaining food.

Messages are exchanged among participants.

Conclusions: The fulfillment of the proposed objective and the environmental learning acquired by the community members in the creation of family vegetable gardens are evaluated. The

participants offer their opinions about the results of the workshop and understand that participation is essential for environmental education in vulnerable communities.

Evaluation: The technique "The hot ball" is applied and the one who stays in the hand with the ball is the one who gets the ball.

The technique "The hot ball" and the one who stays in the hand with the ball are applied to the proper treatment of solid waste, through recycling for the beautification of the community.

Place: Community ecological classroom expresses the evaluations of the workshop carried out in a qualitative way.

Workshop 3

Title. Building with everything (recycling).

Objective: To characterize the

Comentado [HCD1]: A esta idea le falta el objetivo

Participants: Villagers, community leaders, cadres and reserves, students, school children, delegates, retirees, housewives.

Description

These workshops concentrate several waste objects previously obtained from the raw material collection campaign and the slogan "My beautiful and nice community" is presented. This activity coincides with the environmental date May 17, International Recycling Day, in order to encourage greater dynamism.

Through a dialogue, the criteria referred to recycling are exchanged: What classification should the materials to be recycled take into account?

What resources are needed for recycling?

Steps to follow

The criteria expressed by the participants are listened to.

Once the participants' interventions have been heard, a discussion forum is presented by different guests where they will present objects obtained from recycling.

Women creators: present flowers made of nylon and shampoo and deodorant bottles, patchwork sheets and rugs, straw bales and yarey hats, ecological watering cans made of plastic bottles, baskets made of empty oil bottles, ecological planters made of tires.

Each guest will present his or her work and explain his or her methodology in the elaboration of these objects made from recycled materials. An exchange will take place between the participants and the presenters about their experiences regarding recycling and its importance.

Then, paper strips are handed out to establish a dialogue among the participants, with the following questions:

- Identify which areas of the community generate the most waste and solid waste.
- The appropriate treatment is offered to these wastes and residues.
- The accumulation of waste and solid waste is the responsibility of industry, agricultural, social or domestic. Argument.
- Explain how to classify waste and solid waste.
- Refer some initiatives that can be obtained from recycling.

Conclusions: The fulfillment of the proposed objective and the learning acquired by the community members about recycling is valued. The participants offer their opinions and understand that it is of vital importance to treat community environmental education as a way to local development.

Evaluation: PNI is applied in order to assess the perceptions expressed on the importance of recycling.

Conclusions

The relationship between the university and the community is fundamental for the development of community environmental education in the Imiense population, since the university is the appropriate center and indispensable tool for integrated community work.

The implementation of the community environmental education workshops shows a quantitative increase in community participation, promotes the exchange of experiences between the villagers and the university, develops environmental values by strengthening the relationship between the agents of society, responsible action and active participation of the community as a way to meet the objectives of the 2030 Agenda.

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