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"LA MILPA, ENVIRONMENTAL TRAINING PROJECT FOR SPECIAL EDUCATION STUDENTS IN BAJA CALIFORNIA"

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Abstract: This work is the result of the research carried out through the project, "La Milpa in Baja California", which is part of the "La Milpa Agricultural Practices" project, oriented by the Ministry of Culture and implemented in Regional Popular Culture Units at Nacional level.

The Colegio de la Frontera Norte participated through the Environmental Education Project "Ecoparque comes to you", had the responsibility of putting it into practice in the state of Baja California, first with 6 basic education schools and then in an innovative way through a pedagogical, didactic, interdisciplinary and developer project in 6 schools with children and young people with special needs. The project's objective was to contribute to the comprehensive training of special education students by strengthening knowledge for the creation of a cornfield where corn is grown and harvested, accompanied by beans and squash. The project methodology is based on a Comprehensive, Curricular, Instructional and Training Design, where the importance of combining the work of the groups both by objectives and by topics is highlighted, where feedback and evaluation are constant, together with education based in the environment, positively impacting many aspects of the lives of these students.

The cornfields created in each school behaved as an educational resource not previously achieved where pedagogical criteria have prevailed and students learn from experimentation and observation, which undoubtedly favored the teaching-learning process.

Keywords: The milpa, special needs, Environmental Education

BACKGROUND

The project, "La Milpa in Baja California", is part of the "La Milpa Agricultural Practices" project, guided by the Ministry of Culture and implemented at the national level. In each state it has been developed with different characteristics, but in all cases the importance of corn has been highlighted from a cultural point of view and emphasizing that this grain is considered the main food of all the indigenous peoples of America.

The Colegio de la Frontera Norte participated in the project through the Environmental Education Program "Ecoparque comes to you". In this case, he had the responsibility of putting it into practice in the state of Baja California, first with a pilot project in 6 basic education schools and due to the success achieved, it was decided that "La Milpa in Baja California" through As part of a pedagogical, didactic, interdisciplinary and innovative project, the curriculum will be adapted to work with children and young people with special needs.

Carrying out this project with the creation of a cornfield can help improve the skills and make the most of the capabilities of students with special needs according to what was proposed by Peña (2011). Just as watching the plants grow and harvesting the harvest results in effective human responses in this group of students because their environment contrasts strongly with the social world in which they move. Orchards, cornfields, gardens are very safe places for these children and young people, where they feel a benevolent environment where everyone is welcome. The aforementioned author assures that: "plants do not have prejudices, they do not threaten and they do not discriminate.

The cornfields that are created in schools, with the work of everyone, provide serenity, harmony and well-being, improving the quality of life of each participant regardless

of their needs. Furthermore, observing how a seed transforms into a plant and at the same time fills with flowers and how they become fruits, is like observing the miracle of life carried out with the hands according to what Corrales-Mendoza stated, J. (2016).

JUSTIFICATION

The milpa is a cultivation technique that was devised and implemented by the Mayans. Although a long time has passed since its invention, it has continued to be widely used today. In our days there are still some regions of Mexico that perform ceremonies to bless the sowing of the golden grain.

The use of the milpa with the planting of corn and horticulture (planting and harvesting of beans and pumpkins) serves as therapy and as an educational and socializing instrument, with its own and differentiating entity, it has been widely implemented and recognized in the last half century. countries such as the United Kingdom, Ireland, Germany, Canada and the United States to name a few. (Peña 2011).

The activities carried out with children and young people with special needs combine a wide range of knowledge on physical, cognitive and sensory disabilities, various pathologies, psychosocial disorders, special learning needs, among others, as well as agriculture, gardening, landscaping, education environmental and related activities. (Hernández et al 2017)

Purpose of the project: Enrich the teaching on the topic of corn cultivation to students with special needs, intending it to be an innovative practice in the field of Special Education.

Instructional and Training Goal of the project: Ensure that students with special needs acquire experiences about the cultivation of corn and the plants that make up the Mesoamerican triad. As well as acquiring multiple experiences linked to the teaching-learning process linked to the programs of the different subjects that are provided in schools. In addition, the cornfield and its environment are taken as a therapeutic resource where if it is important to obtain a final fruit, the therapeutic action itself is also important in the treatment of the special children and young people who participate in the project.

GENERAL GOAL

Modestly contribute to the comprehensive training of a group of Special Education students from Baja California, strengthening knowledge for the creation of a cornfield where corn, a sacred food for Mexicans, is grown.

SPECIFIC GOALS

1-Provide knowledge about planting and harvesting corn.

2-Develop a cornfield in each school, where the main species harvested is corn, accompanied by beans and pumpkin, which in our traditions is known as the Mesoamerican triad.

3-Ensure that the cornfield becomes a therapeutic tool that provides special added values, which are not present in other disciplines.

SKILLS

Environmental education aims to allow the individual to get involved, through interaction with their environment, in knowing the repercussions caused by certain practices of inappropriate use of natural resources, and is also concerned with preserving our cultural traditions. Likewise, highlight the benefits of providing knowledge about the cultivation of corn, highlighting it as the most important crop within the development of existing indigenous cultures. On the other hand, it is essential that the individual knows about caring for the environment and learns to

generate resources for personal and family use. The "La Milpa in Baja California" Project involves certain educational tasks that will help build character and inspire the individual to undertake new projects that provide sustainability to their environment. (Secretary of Public Education, 2014).

METHODOLOGY

The project methodology was based on a Comprehensive Instructional and Training Curriculum Design (DICIF), (Uriegas, 2015), this model contemplates learning as a process and incorporates the development of capacities, abilities and skills. It also requires an educational and training purpose.

The model includes instructional objectives which take into account three fundamental aspects for the best development of learning: 1) the conditions in which the activities are carried out, 2) the observable behavior of both students and teachers and 3) the criteria of evaluation, these are responsible for making it known if the activities can be continued, or if it is necessary to return to the starting point. All included in an open and flexible program, which consists of 15 sessions of 4 hours each, spread over the months of January to June of the school year, with a weekly visit to each campus.

The basic thing about this methodology is that it becomes very experiential by taking the environment as the integrating context of learning and this in turn makes these projects highly motivating for children, young people and teachers of special schools, as they return to the classrooms with many vivid impressions, which keeps him more interested in developing his work. (Regader, 2016)

To facilitate students' knowledge, drawings and visual materials are used, where the activities to be carried out will appear in a pleasant and pleasant way with a sequence that demonstrates the order of the activities to be carried out. Likewise, both the diagnostic and final evaluations were carried out through drawings, which served to compare before and after.

This project also uses instruments from Qualitative Study Methods such as informal conversations, participant observation, case studies and the analysis of information gathered through the research process itself. The informal conversations and the teachers' opinions collected in the Field Diary served to establish a complete picture of the situation in each school. Hernández-Sampieri, Fernández and Baptista (2014). Through these, it was possible to understand the needs of each school community and the challenges they face in order to achieve the objective of creating a cornfield in each school as a pedagogical-didactic tool within the context of Environmental Education.

At the end of each session, the teachers carried out an evaluation according to the following indicators:

-Level of motivation caused by the activities they carry out.

-Degree of participation of the students, teachers and facilitators who have collaborated.

-Creative contributions.

SAMPLE SELECTION

The facilitators, after visiting the schools and talking with directors and teachers, were in charge of selecting the schools. Once it was selected, the directors were finally the ones who chose the students who participated in the project activities.

Although the sample was never chosen randomly, it was only taken into account that they were homogeneous samples of students and that they had similar characteristics, as described by Hernández-Sampieri, Fernández and Baptista (2014).

BENEFITED POPULATION

Primary name	Location	Sample		Total
		M	F	
Ejército Mexicano	Cerro Colorado	45	55	**100**
Miguel Alemán		23	27	**50**
Francisco Villa		50	52	**102**
Cultura Azteca		61	56	**117**
Sor Juana Inés de la Cruz		18	16	**34**
Juventino Rosas		26	25	**51**
Total		**223**	**231**	**454**

Table Number 1: Basic Education Students who participated in the Pilot Project. (2017)

Selected students from 4th, 5th and 6th grade participated.

Primary name	Location	Sample		Total
		M	F	
Cam Laboral	Playas de Rosarito	7	10	**17**
Cam Rosarito		20	12	**32**
Cam Laboral Nueva Creación	Playas de Tijuana	19	16	**35**
Cam Benito Juárez		34	14	**48**
Cam Gabriela Brimmer	Otay	10	8	**18**
Cam Mariano Matamoros	Mariano Matamoros	18	18	**36**
Total		**108**	**78**	**186**

Table Number 2: Special Education students who participated in the innovative Project. (2018, 2019 and 2020)

Students selected by the school management participated.

CAM: Multiple Care Center (Boys and girls from 7 to 13 years old)

CAM: Multiple Labor Care Center (Young people from 14 to 17 years old), where there are workshops and equipment for them to learn about a trade.

The research also carried out a sociodemographic study of the participating students, taking into account age, sex, educational level and the conditions of the surroundings where the schools were located.

CAM Playas de Tijuana, 2019

CAM Laboral de Playas de Tijuana, 2019

CAM Laboral de Playas de Tijuana, 2019.

CAM Mariano Matamoros, 2020.

CAM Mariano Matamoros, 2020.

CONCLUSIONS

1- It is confirmed that the project met one of the growing demands that schools with students with special needs have and that was to take students out of the classroom and put them in contact with nature, to improve their quality of life. life.

2- All those who participated in the activities carried out in the cornfield: preparation of the land, composting, sowing, irrigation and harvesting, served as therapeutic exercises, ensuring that both children and young people developed the necessary coordination to carry out activities that can be adopted into your daily life.

3- The creation of the cornfield in each school has been an educational resource not achieved before where pedagogical criteria have prevailed over agricultural ones and all the activities carried out were aimed at helping in teaching activity.

4-It is made clear that the milpa (orchards) are beneficial for the education of children and young people with special needs because they represent:

-A constant lesson about the environment and a source of pride for the school.

-The dry and stony land is transformed into a productive green area, into an open-air laboratory, into beds for growing beans, corn and pumpkin, into study areas.

-The milpa does not provide all the food that children/youth consume, however it can have a strong influence on what they eat.

5- It is related to the advancement of children and young people with special abilities since when working with these projects they learn from experimentation and observation, which undoubtedly favored the teaching-learning process of each one.

6-Special Education is not based on establishing a level of difference between special children and young people, but on respecting the special educational needs of each person, therefore the most important and basic thing about this project was to ensure that education became individualized because the characteristics and abilities of each child and each young person were different and personal.

7-The departure of children and young people outside the classroom to get in touch with nature and the creation of a cornfield in a school is like the creation of an amusement park, excellent medicine and a learning classroom. Contact with it improves health, attention span, motor and cognitive development, autonomy, security and the acquisition of values. (State Secretary of Education, 2014)

8-As a final product: the creation of an area of a garden where before there was a place full of weeds or useless things, and now it offers such a high amount of stimuli that contact with it makes

both children and young people find themselves in an open space, with a feeling of freedom, with the ability to move freely, to observe the processes that occur, and that is essential for the development of movement skills but it is also a stimulus for neurons, for emotions. and for learning; It is a vital experience. (Regader, 2016)

9-The conclusion reached by both facilitators and teachers is that this type of project helps both children and young people with special needs to achieve better cognitive and emotional development. It also increases the capacity for exploration, creativity, skills for coexistence and problem solving, coinciding with Hernández et al (2017).

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