

Evaluation of the Impact of the Youth Brigades of Water Culture on the Students of ENMSL: A Retrospective Towards 2025

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Abstract

Water culture has become a prevailing need for humanity. Fortunately, there are several valuable youth-led projects and initiatives worldwide on this topic, such as the Youth Brigade of Water Culture (YBWC) at the Escuela de Nivel Medio Superior de Leon (ENMSL), the largest high school in Leon city, Mexico (Portal guanajuato.mx, 2024). The primary endeavor of the YBWC is to educate children from public elementary schools about water issues in the city and globally. To reach this goal, the brigade works as a team throughout the semester to prepare their activities and necessary materials. This study will show the very first follow up on the more than one hundred students from different cohorts who have been members of the YBWC since its creation in 2016 to date (University of Guanajuato, 2017). The study is conducted to establish the possible impact that the Youth Brigade of Water Culture has had on the students regarding the issue of water and its current problems. Firstly, it is crucial to know whether the members of the brigade have acquired the same environmental awareness that is intended to be generated in children. Additionally, it is essential to determine whether the management done within the brigade over the past nine years should be reevaluated to adjust its approaches based on previous and future generations or if it can be maintained as it has been.

Keywords: water culture, environmental awareness, Mexico

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Introduction

At the University of Guanajuato (UG), in Mexico, all high school students are required to accomplish social service activities (University of Guanajuato, 2018). The purpose of social service is to promote empathy, solidarity, and the capacity for entrepreneurship to meet and transform the social needs of the environment (University of Guanajuato, 2018). The social service activities will seek, from an altruistic and co-responsible attitude, to give back to society for the benefits of the education received in a public institution (University of Guanajuato, 2018). This is the case in the Escuela de Nivel Medio Superior de Leon (ENMSL), a high school belonging to the UG.

Regarding social needs, since all over the world there is a complicated situation about water, major crises in various regions due to problems such as: scarcity, lack of access, pollution, waste, hoarding, economy, diseases, lack of drinking water, among many others, spreading the word and having a surrounding community educated about water problems and the urgent need for its care is the goal of the high social impact project Youth Brigades of Water Culture from the ENMSL (Ortiz, 2019).

The Youth Brigades of Water Culture (YBWC) is a team made up of a teacher and her students, which has the distinction of involve the society outside the school walls by visiting public elementary schools to interact with children aged from four to twelve (Ortiz, 2019).

The first YBWC in the Escuela de Nivel Medio Superior de Leon (ENMSL) was created in 2016 (University of Guanajuato, 2017) with a group of ten first-semester students, who, aware of the current problem of vital liquid, began activities by training and visiting elementary schools with the aim of raising awareness about the care of water to little ones through various recreational activities (Ortiz, 2019). In 2017, the YBWC became a social service project (University of Guanajuato, 2017). Since then, around 110 members have visited more than ten schools (almost one thousand children).

This study will analyze the impact that the YBWC has had on its participants from the ENMSL since 2016 to the present. In doing so, it will provide valuable background and supporting evidence to assess whether the brigade members have also developed their awareness regarding the protection of water resources. Additionally, the teacher coordinating the brigade will have access to supporting data for the future planning of this social service, to determine whether previous activities have been effective and, if so, whether they would remain relevant for students of current and future generations at ENMSL.

Literature Review

Environmental Consciousness

Jimenez and Lafuente (2010) describe the environmental consciousness as multi-dimensional and behavior-oriented, in which are considered diverse types of pro-environmental behaviors and combine psychological constructs that can be associated with four dimensions: affective, cognitive, dispositional, and active (Torres et al., 2022).

According to Torres et al. (2022) the cognitive dimension refers to the degree of knowledge and information that one person has about environmental problems, as well as the organizations responsible for promoting pro-environmental behavior. The affective

dimension (Torres et al., 2022) refers to the set of emotions that demonstrate feelings and beliefs about environmental issues. The dispositional dimension is composed of environmental attitudes that form judgments, feelings, and patterns of behavior for or against the environment and that condition behavior aimed at the preservation or degradation of the biosphere (Torres et al., 2022). Finally, the active dimension is made up of the individual and collective facet, the first alludes to the set of environmental behaviors of a personal nature such as saving electricity, environmentally friendly consumption (recycling, reducing and reusing), the second is represented through behaviors of a public or symbolic nature through the different expressions of support for the protection of the environment (Torres et al., 2022).

Methodology

As a first instrument, a survey was designed in Microsoft Form with the intention of evaluating the four dimensions of environmental consciousness based on the Characterization of positive values in the two measures of environmental consciousness (Jimenez & Lafuente, 2010). The survey was completed anonymously. More than fifty former and current YBWC members were contacted; however, only thirty-six responses were received. The survey items included multiple-choice questions, Likert scale questions, closed-ended questions, and one open-ended item aimed at gathering recommendations for enhancing the activities of the brigades.

The survey remained open for a period of forty days. Participants ranged in age from 15 to 25 years. Among them, fourteen had not yet completed high school education, seventeen had graduated from high school, and five had completed an undergraduate degree. Of the total, twenty-three participants were enrolled in full-time studies. Twenty-six individuals identified as women and ten as men.

To distribute the survey, social media platforms such as Facebook and WhatsApp were used, as well as email. The results were analyzed based on the data provided by Microsoft Forms in its response section.

Results

Following the review of the survey results provided by Microsoft Forms, valuable data were obtained that offer an initial insight into the impact of the YBWC on its members while performing their social service.

As shown in Figure 1, the issue that concerns survey participants the most is water availability. These responses reflect both cognitive and affective dimensions, as the students compared several options and selected the one they perceived to be the most serious problem.

Figure 1
Answers in Question 8

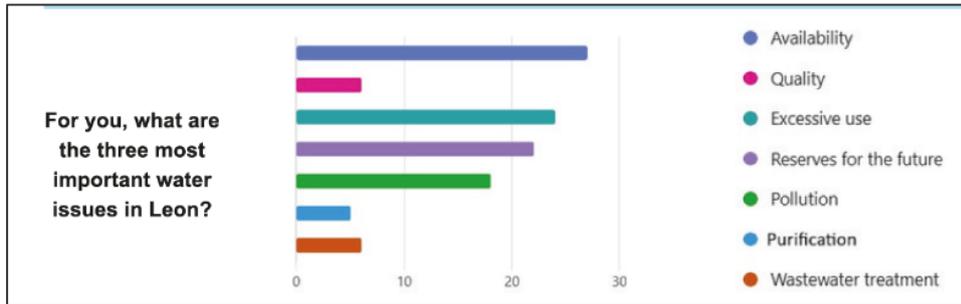


Image by author.

Regarding question 7, most responses indicate a high level of concern about environmental conservation. This finding can be linked to the affective dimension of environmental consciousness.

Figure 2
Answers in Question 7

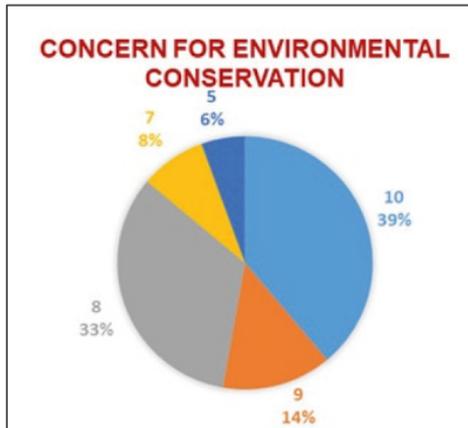


Image by author.

In relation to question 19, over 50% of the participants believe that the future of water availability in Leon city will be worse than the current situation, although seven individuals anticipate an improvement. This perception involves affective, cognitive, and even dispositional components.

Figure 3
Answers in Question 19

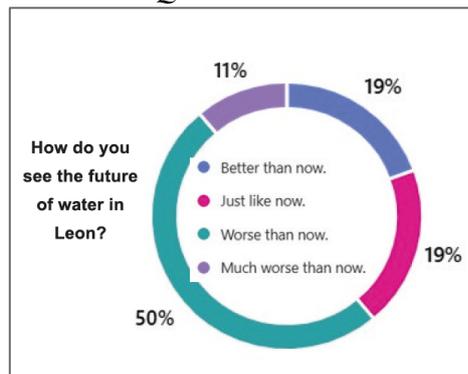


Image by author.

Responses to question 16 reveal that most participants have improved their attitudes toward environmental protection and water conservation. Nevertheless, it is evident that efforts to promote water conservation must be strengthened among both children and adults.

Figure 4
Answers in Question 16

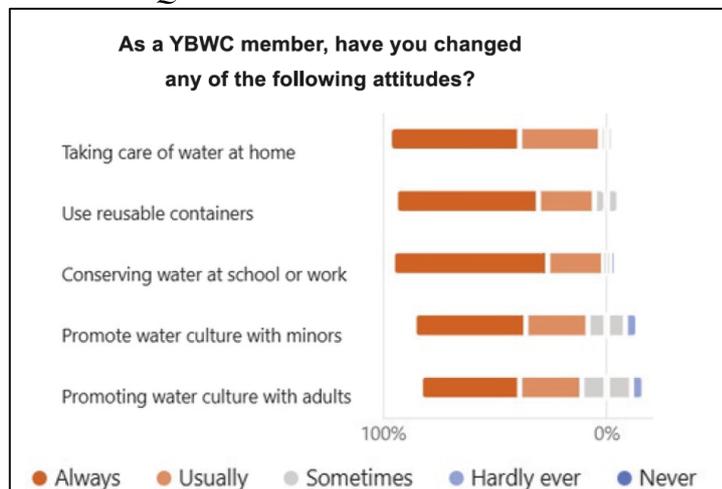


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For question 17, all responses align: the project contributes to environmental awareness, according to those who completed the survey.

Figure 5
Answers in Question 17

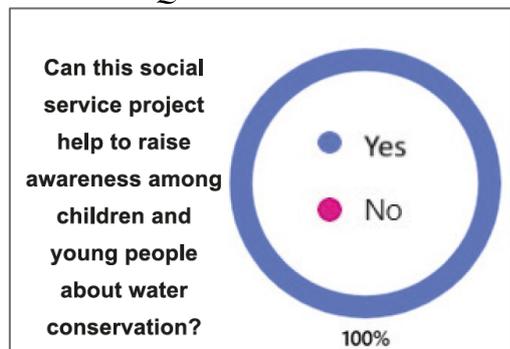
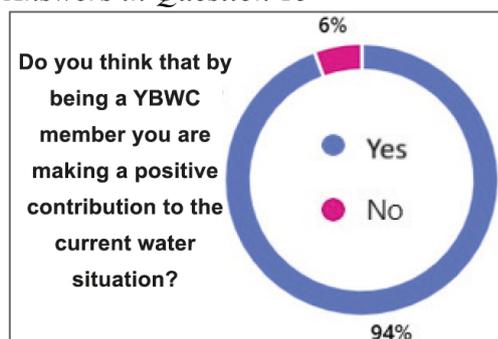


Image by author.

Finally, in question 15, 94% of participants affirmed that the YBWC project contributes positively to the current water situation in the city of Leon. This response reflects both the dispositional and active dimensions, as everyone decides whether to incorporate the knowledge gained into their daily life.

Figure 6
Answers in Question 15



Conclusion

The Youth Brigades of Water Culture is one of the oldest social service projects at ENMSL. However, not enough care was taken to keep a complete record of the YBWC members and their activities, as well as their contact information. The follow-up upon their graduation from the ENMSL is useful and necessary to know if the project also influenced their environmental consciousness. During one semester, there was not enough time to locate former YBWC participants. Although the survey requires proper validation, the fact that at least 36 out of 110 students responded offers a meaningful outcome for its initial implementation. Most importantly, the YBWC has the potential to promote awareness among children and young people about the importance of preserving our precious and finite resource: water

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