



CORPUS PUBLISHERS

Environmental Sciences and Ecology: Current Research (ESECR)

ISSN: 2833-0811

Volume 4 Issue 2, 2023

Article Information

Received date : February 26, 2023

Published date: March 16, 2023

Corresponding author

N Yaqubi, Sustainable Development Program, Al Quds University, Palestine

DOI: 10.54026/ESECR/1087

Keywords

Ministry of Education; Ministry of Education's Programs; Environmental Awareness; Environmental Conservation; Environment

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Research Article

The Role of the Ministry of Education in Enhancing Environmental Conservation in Southern Palestinian Governorates

N Yaqubi, Abu Shammallah N*

Sustainable Development Program, Al Quds University, Palestine

Abstract

This study aimed to clarify the role of the Ministry of Education's programs in promoting environmental conservation by analyzing the educational and awareness programs implemented in the public schools in the governorates of Southern Palestine. The study followed the descriptive analytical approach using three study tools for data collection; a questionnaire, interviews, and focus groups. The study population was targeted based on Census Method using a questionnaire distributed to 123 employees; including school headmasters, health school coordinators, and environmental clubs' teachers; working at 50 public schools distributed across the seven educational directorates in the southern Palestinian governorates. Only 105 questionnaires were recovered. The response rate of the study was (85.37%). Also, interviews were held with middle and senior management employees working at the Ministry of Education and Water & Environmental Quality Authority. Two focus groups of male and female students from grades 7-11 at two different educational directorates were met with. The study showed the importance of education in improving environmental awareness and conserving the environment through educational and awareness programs. The study's foremost important results are that the three educational programs (Environmentally Sustainable Schools, Environmental Occasions' revival, and Green Spaces), held at fifty schools in the seven educational directorates, contribute to enhancing environmental conservation in the southern Palestinian governorates but not to the required extent due to many challenges facing the implementation of educational programs. Eventually, the study recommends the incorporation of environmental education into the Palestinian curriculum of at every grade level, developing the implementation of extracurricular environmental conservation activities, conducting environmental awareness sessions for the local community and parents, allocating a specific budget for education/environmental programs, activate the environmental media, and developing a unified system for monitoring and evaluating the schools' educational and awareness programs.

Introduction

Educational Institutions are the most important entities for enhancing environmental responsibility for students [1,2]. Education- environmental Program implemented in schools is a group of activities that aim at raising students' environmental awareness through training activities conducted for students through specific sessions [3]. Even though there are steps for inclusion of environmental concerns in schools' programs, progress is still unclear in Arab countries as the environment is not considered as a high priority, and schools lack funds [4]. One of the most important elements required to maintain the success of environmental conservation is to understand current attitudes and impressions toward environmental conservation plans and engaging people in setting strategies and implementation [5]. According to literature and previous studies, the effectiveness of educational programs is based on the involvement of various stakeholders of all types including individuals and organizations [6], where the effectiveness of those programs relates to the practical learning and involvement of students in environmental activities [7]. Lack of partnerships and media role may inhibit the community participation in countries' development [8]. The Main objective of this study is to understand the role of the Ministry of Education in enhancing environmental conservation at public schools through understanding the contribution of educational programs in enhancing environmental conservation and awareness, and identifying the obstacles facing the implementation of educational/environmental programs in public schools in the Southern Palestinian governorates.

Material and Methodology

The methodology followed in this research was the descriptive analytical approach using three tools for data collection, questionnaire, interview and focus groups. The research population consists of those working in governmental schools including school headmasters, health school coordinators, and environmental clubs' teachers at 50 public schools distributed across the seven educational directorates in the five Gaza governorates. Only (105) of the questionnaire related responses were recovered with a response rate (85.37%), out of the targeted population of (123) male and female school health teachers, environmental club teachers, and school headmasters. The interviews were conducted with school health departments' heads, senior and middle level management staff working at both Ministry of Education and Water & Environmentally Quality Authority in the Southern Palestinian Governorates. In addition, focus group was followed to gain in-depth understanding of students' environmental awareness and the extent of their involvement in the educational/environmental programs conducted in schools. The researcher met two focus groups of students including both genders from 7-10 grades at two public schools in Khan Younis and North Gaza.

Discussion and Results

As recent studies showed a dramatic deterioration in the environmental situation in Southern Palestinian governorates, therefore it became imperative to understand the role of the Ministry of Education's programs in promoting tolerance environmental-related practices in the Southern Palestinian governorates. This is the most cost-effective way as MoE's programs target the most active actors in society reach to approximately 302,531 people which constitutes around 14% (students and teachers) of the population in the five Gaza governorates [9]. Accordingly, the main research question is

articulated as follows:

“What is the role of the Ministry of Education in conserving the environment in the Southern Palestinian governorates?”, The following sub-questions are derived and answered through the questionnaire Questionnaire Results

The first main question: To what extent the educational programs contribute to enhancing environmental conservation in the public schools in the southern Palestinian governorates?

This question is divided into the following sub-questions

To what extent the Environmentally Sustainable Schools Program contributes to enhancing environmental conservation in the public schools in the southern Palestinian governorates?: The outputs of the applied results of the SPSS Program showed that there is an approval among the respondents on the paragraphs related to the contribution of the Environmentally Sustainable Schools Program to enhancing environmental conservation in the public schools in the southern Palestinian governorates, the relative importance index was 75%, which indicates the importance of this program in creating an environmentally friendly school for the students. This program comes also within the agreement of achieving the sectoral and cross-sectoral strategies related to the environment. Moreover, this result shows there are some environmental activities implemented at schools, which agree with some interviewees’ confirmation that this was a part of programs implemented in coordination with concerned parties. The highest approval rates by respondents are listed in (Figure 1).

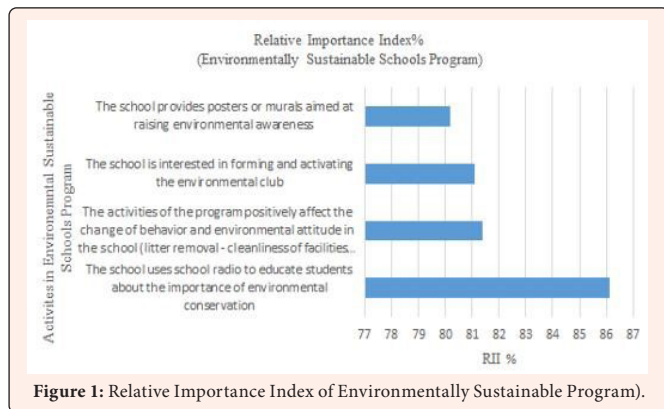


Figure 1: Relative Importance Index of Environmentally Sustainable Program).

As presented in (Figure 1), the highest percentage of relative importance index was related to the usage of school radio to educate students about the importance of environmental conservation, the researcher explained this with reference to the school’s participation in activating the involvement of students in school radio programs following the extracurricular activities method in enhancing students’ environmental and health practices, which constitutes a part of the Ministry of Education’s strategic plan. The other three items which got a high approval rates (above 80% RII) are related to forming environmental clubs, providing murals and posters inside schools and the impact of this program on changing students behavior. This result reflected the fact that this program is a part of the MoE’s strategic plan to provide a clean and safe environment and to enhance students’ environmental awareness through environmental education’s activities. Also Posters, murals, and environmental clubs are encouraged by the MoE to enhance students’ environmental awareness which is a part of extra curricula activities. This result is compatible with the study of [3, 10-12].

To what extent the Environmental Occasions’ Revival Program contributes to enhancing environmental conservation in the public schools in the southern Palestinian governorates?: The outputs of the applied results of the SPSS Program showed that there is an approval among the respondents on the paragraphs related to the contribution of Environmental Occasions’ Revival Program to enhancing environmental conservation in the public schools in the southern Palestinian governorates, where the RII for all related paragraphs was 76%. Reviving environmental occasions Programs were executed in coordination with partnership between Ministry of Education and Water & Environmental Quality Authority and other related parties because of lack of fund and assigned staff as confirmed by interviewees. Similarly, this result is compatible with the studies of [7, 13, 14].

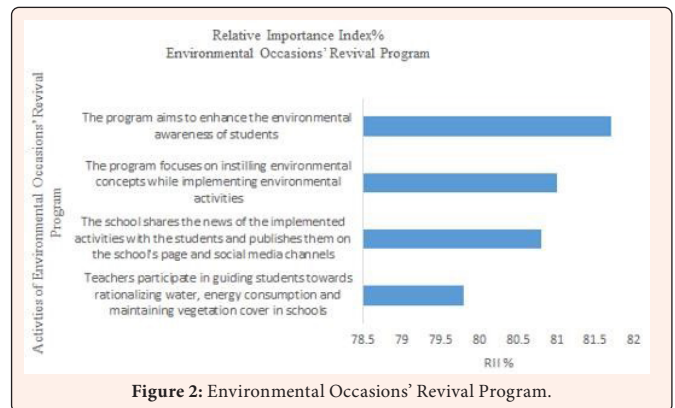


Figure 2: Environmental Occasions’ Revival Program.

As presented in (Figure 2), the four items which got high approval rates (above 79% RII) are related to the program aim of enhancing environmental awareness, instilling environmental concepts, sharing environmental activities related news, teachers’ participatory role in guiding students. This can be explained through the Ministry of Education’s essential role in promoting students’ environmental responsibility where each school is requested to document and publish its news on its own website through an assigned teacher, there is also a diversity to some extent in the executed activities and tools to have appropriate activities for each group age which was also confirmed by interviews stage. These results are compatible with the studies of [1,2, 7,10].

To what extent the Green Space Program contributes to enhancing environmental conservation in the Governmental schools at the Southern Palestinian Governorates?: There is an agreement by the respondents on the items related to the contribution of the Green Space Program to enhancing environmental conservation in the public schools in the southern Palestinian governorates, where RII for all related items is (76.6%). This can be explained as agriculture is one of the sectors that the Ministry of Education is paying attention to; especially for the vocational and technical educational programs. This program’s activities’ purpose is to increase the vegetation cover and landscapes, improve the aesthetic view of the school, and enhance the student’s involvement which would contribute to enhancing environmental conservation to some extent. The Ministry of Education confirmed that afforestation in schools is implemented in coordination with various parties including governmental and non-governmental parties to contribute to the implementation of the education/agriculture crosssectoral strategy as a part of the Sustainable Development plan 2030.

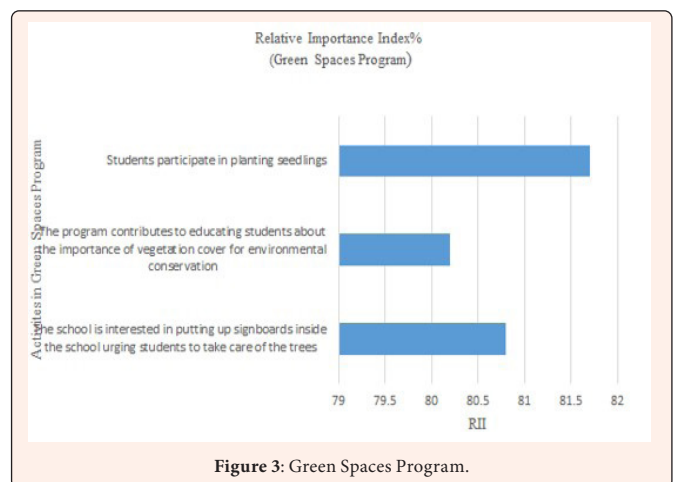


Figure 3: Green Spaces Program.

As presented in (Figure 3), the three items, which got high approval rates (above 80% RII) are related to Students participation in planting seedlings, school interest in putting up signboards inside the school urging students to take care of the trees, Program contribution to educating students about the importance of vegetation cover for environmental conservation. These results reflected the purpose of the Green Spaces Program of making the students participate in planting seedlings and raise their awareness of the importance of vegetation cover and its effects on the environment.

Ministry of Education confirmed that signboards are one of policy tools used to better clarify the concept of environmental conservation and improve students' awareness of environmental conservation, where the implemented activities of this program is part of the extracurricular activities executed, in parallel with the scholastic curricula. This result is compatible with various studies of [1,2,7].

Analysis of paragraphs related to (dependent variables) enhancing environmental conservation: There is an agreement by the respondents on the items related to the implementation of environmental conservation activities executed by both teachers and students, with an overall RII of 74.4%. Even though there are some procedures & programs implemented by MoE, the researcher believes that those procedures have not been implemented in a proper way, as it is still obvious the unconscious behavior of students and their families in the streets and public places presented in pollution resulted from irrational use of natural resources, the waste accumulation, and random burning of waste where MoE and other concerned parties still not taking any serious intervention regarding conservation landscapes, sorting, reusing, and recycling waste at schools. Thus, the percentage of RII 74.4% would be real and may be higher if there is a real implementation of environmental law and effective partnerships to ensure better implementation of activities related to environmental conservation in schools and community.

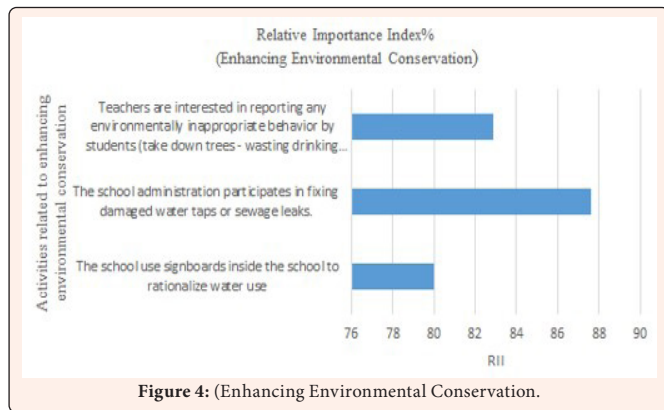


Figure 4: (Enhancing Environmental Conservation.

As presented in (Figure 4), the three items, which got high approval rates (above 80% RII) are related to participation of school administration in fixing damaged water taps or sewage leaks, teachers' interest in reporting any inappropriate environmentally behavior by students and using signboards inside the school to rationalize water use. This results reflected the school approach toward achieving the Strategic goals of the educational sector "Develop a studentcentered teaching and learning environment and methods", where Ministry of Education allocates an annual budget to school administration to solve the technical problems related to school health and use the signboards as one of the important policy tools to influence the perception and inspiration of students. These results agrees with studies of [14-17].

The Second Main Question

What are the obstacles of the implementation of educational/environmental programs in public schools in the Southern Palestinian governorates?:

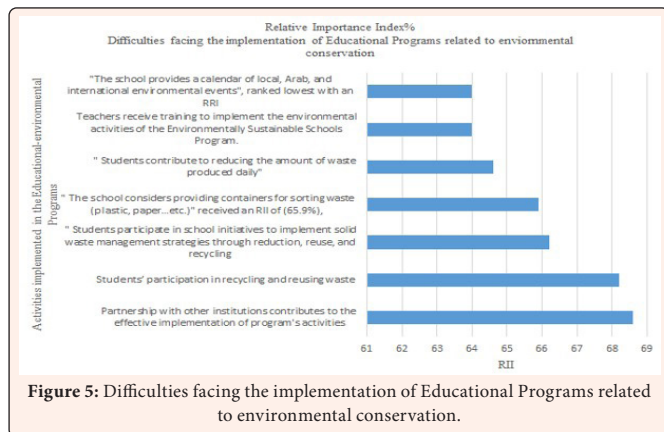


Figure 5: Difficulties facing the implementation of Educational Programs related to environmental conservation.

Based on statistics extracted from the analyzing the results of the statistical analysis, interviews and focus groups' statements, it was noticed the following obstacles listed in (Figure 5). These obstacles have been attributed by the absence of an environmental law and law enforcement stakeholders; ignoring the implementation of Palestinian Law. Moreover, the educational-environmental programs were not given enough attention and priority by the Ministry of Education due to limited sources of funding, as there is no specified budget for the implementation of environmental programs/training sessions. The only source of funding is external aid provided by international or private institutions or local community organizations. Therefore, teachers are not enough motivated to participate as there is no overtime payment for teachers involved in the work. In addition, training sessions cannot be done regularly as school health and environmental clubs' teachers are fully occupied with their duties as teachers. Regarding waste in schools. Serious interventions for managing waste are neglected inside the public schools. Additionally, that the partnership level between the Ministry of Education and other concerned parties has been affected recently by the political situation and the overall economic situation which adversely diminished the financial and technical support for the educational programs as they are primary partners in the implementation and evaluation.

Conclusion

On the basis of the results obtained, the presented work revealed that more work should be done to sustain the environmental conservation as it is still evident the unconscious behavior of students and their families in the streets and public places as there are some challenges that are considered priorities for people hindering efforts exerted to conserve the environment such as lack of community awareness and cooperation, poverty, unemployment, and food insecurity. Also, despite the contribution of education-environmental programs conducted in schools to environmental conservation, the questionnaire results, interviews and focus groups revealed several obstacles hindering the implementation of the programs at the fifteen public schools examined in the research. Among the obstacles are the lack of allocated budget, lack of effective partnerships, negligence of the implementation of environmental laws, lack of environmental awareness sessions offered for parents and teachers, lack of community awareness, crowded classes at schools, limited yard spaces at schools, and lack of students' environmental knowledge.

Recommendations

The Ministry of Education may give more priority to environmental awareness programs and environmental conservation initiatives and activities through considering the issuance of an environmental guide for students and incorporating environmental education into the curricula of all grades at all Palestinian schools. Also, a unified system for monitoring and evaluating the school's educational program should be launched and developed where all employees working at the Ministry of Education, educational directorates, schools, and WEQA can view the implemented activities. The Ministry of Education may consider implementing training programs for teachers to help them master the implementation of extracurricular activities related to educational/environmental programs, in addition to activating the environmental media. Moreover, it is essential to have a specific budget for the implementation of education programs and for the recruitment of a full-time environmental educator in each school. Finally, it is recommended to utilize the green spaces in the schools to teach students how to properly dispose organic waste and use compost in fertilizing, and encourage rooftop agriculture for schools with limited spaces.

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