



## Environmental Education without words for the next generation

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**Abstract:** In the past decades, demographic and cultural changes are reshaping the Israeli society: It changed from a society constructed of a clear majority and minority to a society that is constructed of four central sectors or "tribes" that resemble in their size: secular; national-religious; orthodox; Arabs. The president, in coordination with the planning and budgeting committee of the Council for Higher Education have launched the project "Israeli Hope in the Academia", since the academia has an essential role in shaping the "new Israeli order". The project's aim is to base the campuses as spaces for creating shared Israelite society that enables maintaining the unique identity of each group, to express the talents and excellence of the Israeli society, to promote a united vision of partnership in the universities and colleges, to develop an Israeli intellectual, social and diverse leadership that is aware and attentive. Holon Institute of Technology (HIT) has developed an integral system of environmental education and training. The course is named "Green Ambassadors", and the goal is to educate the next generation environmental education. The teams of five -graders and six -graders from "Al Omariya" school in Ramla have been chosen to take part in the project.

**Keywords:** Arabic, .Environmental Education, Elementary school, Hebrew.

### I. INTRODUCTION

The introduction of the paper should explain the nature of the problem, previous work, purpose, and the contribution of the paper. The contents of each section may be provided to understand easily about the paper. In Israel, there is a separation between the Jewish education system and the Arab Israeli education system. The decision for this separation has both practical and ideological explanations. There are those who claim that the demographic realities dictate this separation. However it is revealing that the policy since the founding of the state was to strengthen and preserve the Jewish identity amongst the Jewish sector, and a coming to terms with the national identity of the Arab Israeli pupils. The ideological component is the more important of the two; this is evidenced by the fact that even in places where it would be possible to establish a combined education system, like in mixed cities like Ramla

Holon Institute of Technology (HIT) has developed an integral system of environmental education and training. The course is named "Green Ambassadors", and the goal is to educate the next generation environmental education. The course is divided into 6 groups; each group contains 3 to 5 Israeli Hebrew speaker students, whose goal is to provide information on environmental to Arabic school with Arabic speaker pupils'. The teams of five -graders and six -graders from "Al Omariya" school in Ramla have been chosen to take part in the project. Concentrate efforts on the improvement of education for sustainable development marked the beginning of a serious reform to cover all types of education and training from preschool to vocational and post-university.

### II. ARAB ISRAELI EDUCATION

The Arab public school system, legally obliged to provide a level of education equal to that offered to Jewish citizens, is in fact inferior, on average, to the Jewish public school system due, in part, to the unequal budgets and resources allocated by Israel's government. This often creates gaps in knowledge in a range of subjects [1, 2, 3]. Arab students from Israel also find it more difficult than their Jewish peers to meet the demands of an academic system that requires critical discourse, as Arab schools tend to allow less room for expressing opinions and encourage more passive [4, 5]. Therefore, many Arab students are at a disadvantage especially relative to their Jewish counterparts. Many of them lack both the cultural capital [6, 7] and the type of academic skills required for coping with Western-influenced Israeli culture, making it difficult for them to match the achievements of their Jewish peers. Henry Giroux asserts that "while the hidden curriculum cannot be entirely eliminated, its structural properties can be identified and modified" thus enabling the teacher to develop new pedagogical methods [8]. These methods, which Giroux and others identify as critical pedagogy, may partially and temporarily transform the power relations in class and may develop critical and political consciousness among participants, students and teacher. However, critical pedagogy, claims Norman Denzin,



"requires citizens and citizen-scholars committed to taking risks, persons willing to act in situations where the outcome cannot be predicted in advance" [9]. Bell hooks has accurately acknowledged the reluctance of many teachers "to see the classroom change, to allow for shifts in relations between students" between students and me their teacher [8]. Hooks and Denzin remind me that using methods of critical pedagogy transforms the educational power structure and if I aspire that my class will contain "persons jointly working together to develop new lines of action, new stories, new narratives in a collaborative effort," my authority as the class teacher will be threatened [10]. To create these changes teachers should overcome their fears, work harder, be adventurous, imaginative and spontaneous [11].

### **III. ENVIRONMENTAL EDUCATION**

In Israel, there is a separation between the Jewish education system and the Arab Israeli education system. The decision for this separation has both practical and ideological explanations. Most schools in Israel and throughout the world are appraised by their ability to transfer a large quantity of information to the students over a 12-month period. As the amount of theoretical material is very large and the time teachers have to teach is minuscule, it is nigh impossible to ensure that students understand the material during the lesson. Such an issue of teaching a lot during insufficient time causes teachers to develop certain teaching patterns during the inaugural years of their teaching careers. Such a pattern is built by training teachers during their teaching studies. When a teacher approaches the class for the first time, he/she uses this specific pattern. If such a pattern does not work, the teacher changes and improves it according to how he/she supposes it will be more efficient in class. The pattern holds in the teacher's mind and nature and defines a path to his/her future lessons [12]. As teachers face time pressures, it is difficult for them to change and modify this pattern. Moreover, each individual is different, so many pupils fail to absorb the study materials—an aspect that affects the pupil later in his/her learning. Due to the lack of time and erosion of teachers, teachers' lectures are delivered in a monotonous, tedious, and even destructive manner in terms of curiosity and resourcefulness of the child [13].

According to Ruth Wilson (1994), teaching environmental education in early childhood includes the growth of a sense of curiosity as well as appreciation of the beauty and mystery of the natural world. Education also includes developing problem-solving skills and developing an understanding and appreciation of the world around us. The goal of environmental education is to develop a population that recognizes environmental topics. Studies have shown that most individual positions are formed at a very early stage of life, meaning the teaching environment in early childhood is of great importance [14].

Advances in elementary school curriculums supply theoretical lessons about energy efficiency; such an approach does not hold much information according to the topic, indicating that younger pupils' level of knowledge is really depressed. In order to ensure effective learning about energy efficiency, students—especially younger age groups—must be taught utilizing a short piece of theoretical lesson that only offers the fundamentals and provides experiential experiments that illustrate scientific principles. Based on a teaching activity that motivates students to analyze and research the subject of energy efficiency, it is possible to search for answers and solutions about the environment. Such activity gives even the weakest students the motivation to study the subject in a fun way [15] and allows the students to learn at different levels—namely, hearing, feeling, and sight—thereby providing them with a practical and theoretical understanding of the material that, by the end of the process, is stored in their long-term memory for future use in their everyday lives. After the lesson, the pupils become representatives among their family and friends circles. Such representation is a significant persuasive power related to environmental education for pupils' circles in their various institutions, making it possible to spread the knowledge and information to a big portion of the population in a short time.

### **IV. “GREEN AMBASSADORS”- ACTION LEARNING COURSE**

The action learning course is an academic course which combines academic learning with social activities. These courses deal with processes and social challenges, reveal different ideologies, and develop critical thinking and pragmatic ideas. Students receive course credits and a grade for being part of such course. Participating students enroll in courses that involve action and activities to engage in the experiential learning process, thereby creating a dialogue and cross-fertilization between being taught in the classroom and experiencing the reality in the real world. A learning experience includes meeting with social organizations, institutions, and state authorities and carrying out practical work with diverse populations. The action learning course is named “Green Ambassadors”, and the goal is to educate the next generation environmental education. The course is divided into 6 groups; each group contains 3 to 5 Israeli Hebrew speaker students, whose goal is to provide information on environmental to Arabic school with Arabic speaker pupils'. The teams of five -graders and six -graders from “Al Omariya” school in Ramla have been chosen to take part in the project. This article

presents a new challenge. Teach environmental issues with language difficulties. Israeli Hebrew speaker students, teach environmental education in Arab school with Arabic speaker pupils'.

Under the guidance and supervision of Dr. Hen Friman, "HIT" has built an innovative course that combines action and activities to increase the awareness and accessibility of the community in an experiential way. The end goal is to create "Green Ambassadors"—children with a high level of environmental awareness. This course shows how the theory becomes practical and concrete. The students from HIT are asked to introduce to the five-graders and six-graders from "Al Omariya" school in Ramla, lesson without words because of language barrier. The lesson was focused on presenting the environmental issues: Energy efficiency (saving), solar energy (Fig.1a), energy conversion, air pollution (Fig.1b), water pollution (Fig.1c), waste, recycling (Fig.1d).



Figure 1. Experiments instead of a theoretical explanation with words (a) Simulation of solar energy (b) Simulation of air pollution (c) Simulation of water pollution (d) Simulation of recycling an old tire for a chair

The Israeli Hebrew speaker students' from HIT transferred the material in experiments, images and models instead of a theoretical explanation with words. Sometimes were also required to translate the teaching staff at the school (Fig. 2).



Figure 2 Certificate in two languages for the course participants

In January 2018, 160 pupils from “Al Omariya” school in Ramla gathered at an impressive ceremony held at HIT Holon Institute of Technology, where pupils received the certificate (Fig. 2) a child with high environmental awareness (Fig. 3).



Figure 3. Pupils from the “Al Omariya” school in Ramla received the certificate

## V. CONCLUSION

Concentrate efforts on the improvement of education for sustainable development marked the beginning of a serious reform to cover all types of education and training from preschool to vocational and post-university.

The action learning course "Green Ambassadors" in the Community powered by the Social Involvement Unit HIT that in this way we can contribute to society and future generations.

The investment of great effort and good will of students can also overcome the language barrier.

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