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Evaluation and Monitoring of a Long-Term Peace and Environmental Education Program in a Region of Intractable Conflict

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Abstract: Managing long-term peace and environmental education programs toward positive encounters and peace building in a region of intractable conflict requires constant evaluation and monitoring of students and school staff. This paper analyzes a program running for the second year in ten Israeli high schools. It is the only Israeli environmental and peace educational network for both adolescent Israeli Jews and Arabs. The program acknowledges that there is not one fixed formula for excellence in education; thus, it aims to match its curriculum to each school, attend to current events, and generate harmony between people and between people and nature. Constant evaluation and monitoring of students and school staff is done through multiple research tools; some include a pre-post research construction while others rely on ongoing data collection, observation, and reflection. The tools implemented in this program and the lessons learned are described and analyzed in this paper.

The first part of the paper discusses aspects of environmental and peace education, including pedagogic implications and the difficulties of evaluation. The second part describes the case study, including the program's origins, its position in Israel's reality, and its implementation. Finally, the paper focuses on describing and illustrating the evaluation and monitoring methods used by the program.

Keywords: peace education; environmental education; Jewish Arab conflict; education monitoring; education evaluation.

Education For Peace

In regions of intractable conflict, as is the case between Israel and Palestine, researchers have differed in what the ultimate goals of peace education might be. In reference to Bar-Tal and Rosen's (2009, 557) question, "can peace education facilitate change in the socio-psychological infrastructure that feeds continued intractable conflict and then how can the change be carried?" researchers indicate that for societies involved in intractable conflict,

> "[t]he objective of peace education should be to advance and facilitate peace making and reconciliation […] to construct society members' (including students) worldview in a way that facilitates conflict resolution and the peace process and prepares them to live in an era of peace and reconciliation" (in Bar-Tal and Rosen 2009, 559).

Peace education programs often vary in the degree to which they attempt to meet these objectives. Many peace education programs focus on reducing pre-held prejudices and stereotypes to encourage a change in the students' perceptions of both themselves and the "other" (Salomon 2004). Some peace education programs hope only to maintain the status quo and to prevent future flair-ups. Such programs might be, as noted by Marc Ross (cited in Salomon 2004, 3) simply "good enough conflict management." Essentially, the overall objectives in peace education are to positively alter the students' attitudes and feelings and to introduce them to a wider worldview, so that they might be more tolerant and accepting of the "other" and more open to different points of view (Salomon 2004).

Peace Education and Environmental Education

Peace education programs are often seen as part of an interdisciplinary effort, along with other forms of education that employ experiential learning to help enhance the learning process (Bajaj and Chiu 2009). In such cases, "indirect peace education" – that is, using another topic, such as environmental sustainability, human rights, and women's rights - can introduce students to skills needed for peace-building exercises (Bar-Tal and Rosen 2009). The emergence of interdisciplinary programs that include peace education and environmental education has been well cited and the two fields continue to merge with "increasing commonality of the aims and goals and of the vocabulary and educational approaches of these fields" (Argyemen 1996 cited in Wenden 2004, 16-17).

Environmental education strives to "create awareness, leading to understanding, which in turn creates the potential and capacity for appropriate actions" (Staniforth and Fawcett 1994, cited in Thomson, Hoffman 2003, 8-9). Thus, students are introduced to critical and reflective thinking and are taught useful skills for peace building. There are already several environmental conservation projects that have had some success in peacemaking and have helped initiate dialogue that can foster future cooperation and, eventually, peace (Carius 2006). An example is the Good Water Neighbors project of Friends of the Earth Middle East (FoEME)[1] developed in Jordan, Palestine, and Israel.

Researchers have emphasized the similarities between peace education and environmental education with regards to the use of active participation and experiential learning in teaching critical thinking, reflective thinking, problem solving, and cooperation. These skills promote the

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[1] Friends of the Earth Middle East (FoEME) is an organization that brings together Jordanian, Palestinian, and Israeli environmentalists with primary objective of promoting cooperative efforts to protect the shared environmental heritage. FoEME has offices in Amman, Bethlehem, and Tel-Aviv. FoEME is a member of Friends of the Earth International. More information at http://www.foeme.org/www/?module=home

development of positive values and the desire to promote peace and environmental sustainability. As Fien and Tilbury (2001 cited in Wenden 2004, 12-14) stated "we cannot have environmental quality without human equality" and "education for sustainability actually seeks to develop closer links among environmental quality, human equality, human rights and peace, and their underlying political threads."

Peace education and environmental education have been included in multidisciplinary programs often referred as "education for sustainable development," "development education," "education for sustainability," and "futures education." Wahlstrom (1991 cited in Wenden 2004, 11) noted that these programs have a twofold focus related to the environment and social issues: they strive to "promote the will to save the environment while at the same time helping to develop a sense of social responsibility and solidarity with less privileged members of society, and [… they strive] to shape human behavior towards nonviolence among humans and between humans and nature."

For instance, in recognition of the importance of multidisciplinary education, UNESCO declared 2005-2014 as the Decade for Education for Sustainable Development (DESD) hoping to "encourage changes in behavior that will create a more sustainable future in terms of environmental integrity, economic viability, and a just society for present and future generations" (cited in Bajaj and Chiu 2009, 9). Also, in 1992, UNICEF declared that the objectives of development education "should promote the development of attitudes and values, such as global solidarity, peace, tolerance, social justice, and environmental awareness, and facilitate the acquisition of knowledge and skills which will empower learners to promote these values and bring about change in their own lives and in their communities, both locally and globally" (cited in Wenden 2004, 17).

Thus, peace education and environmental education fall under the umbrella term of "education for sustainability" as their objectives are to initiate positive social change. Both education programs are part of a more in-depth form of learning that does not occur in the same way as more traditional subjects such as math or history. These programs introduce students to "diverse knowledge traditions […] which welcome cross-cultural and inter-civilizational dialogue" (Hutchinson 2009, 1). The premise of these programs is that, through peace and environmental education, students learn to respect viewpoints and personal values that might differ from their own and to understand how peace and environmental sustainability are intertwined (Bajaj and Chiu, 2009).

Requirements for success

For peace education programs to be successful, they need support from the education system, parents, and the community. Such programs should promote encounters between these groups during which all participants have equal status, collaboration and cooperation are actively encouraged, and friendships may develop over time (Salomon 2004).

In 1996, the North American Association for Environmental Education (NAAEE) identified a number of factors vital to the success of environmental education, stating that a good program:

> "is learner-centered, providing students with opportunities to construct their own understandings through hands-on, minds-on investigations; involves engaging learners in direct experiences and challenges them to use higher-order thinking skills; is supportive of the development of an active learning community where learners share ideas and expertise, [...] prompt[s] continued inquiry [and]

provides real-world contexts and issues from which concepts and skills can be used" (NAAEE 1996, cited in Thomson and Hoffman 2003, 8) .

Challenges

The link between education for peace among people and education for peace between people and their environment is evident in their common pedagogical dimensions. Both peace education (Salomon 2011) and environmental education (Palmer 1998) must work to overcome "socio-psychological factors" (Bar-Tal, Haperin, and Oren 2010); i.e., views, perceptions, and attitudes that are not just an individual's; but also socially rooted in a social ethos and, more specifically, in a collective narrative. Thus, peace programs face many challenges including "collective narratives and historical memories, collectively held beliefs about 'us' and about 'them,' built-in inequalities, excessive emotionality, and a context of animosity, fear, and belligerence" (Salomon 2004, 4).

Furthermore, there is not a singular concept of peace for everyone. Israeli Jews enter a peace program with the conception of peace as cooperation, harmony, and the absence of violence - i.e., negative peace -, whereas Israeli Arabs see peace as equality, independence, and freedom – i.e., structural peace (Biton and Gavriel 2006). Likewise, there is not one environment for all. A national study conducted by the Arava Institute about the levels of environmental education in Israel's education system found that while environmental education remains equally poor in all sections of society, there are significant differences between Arab and Jewish students as to what they regard as environmental problems (Negev et al. 2008).

Pedagogic Implications

1. Open-minded Education: It is essential for peace education (Bar-Tal 2002) and environmental education (Orr 1994) to be open-minded and avoid becoming simple indoctrination. Educators need to remain open to alternative views and ways of learning, while emphasizing skepticism, critical thinking, and creativity.

2. Experiential Learning: Since peace education and environmental education aim to form a state of mind, the main mode of instruction is experience. Experiential learning (Wenden 2004; Bajaj and Chiu 2009; Templin and Sun 2011; Gawerc 2006; Thomson, Hoffman, and Staniforth 2003) is the key method for the internalization of values, attitudes, perceptions, skills, and behavioral tendencies. Positive results cannot be achieved merely by preaching (Teichman and Bar-Tal 2008; Alkaher and Tal 2011).

3. Teachers are Role Models: Because peace and environmental education aims for students to gain new values and abilities while altering negative attitudes and behavioral tendencies, the results depend on the opinions, motivations, and capabilities of the teachers. Bar-Tal and Harel (2000) suggested that teachers serve as role models, exerting great influence on students by transmitting and mediating knowledge and preparing students to act in society. They may serve as role models when they exhibit social and political awareness as well as involvement in the school, community, and society at large. Therefore, it is essential that teachers aspire to reach the objectives, treasure the values, display the desired attitudes, and exhibit the behavioral trends that they hope to impart on their students (Sagy 2011).

Difficulties in Evaluating Peace and Environmental Education

Carol H. Weiss (1998, cited in Thomson and Hoffman 2003, 12) defines evaluation as "the systematic assessment of the operation and/or the outcomes of a program or policy, compared to a set of explicit or implicit standards, as a means of contributing to the improvement of the

program or policy." Thus, in order to verify the effectiveness of a program, many non-profit organizations use "Outcomes-Based Evaluation" to help steer the program in the desired direction (Thomson and Hoffman 2003). However, since the objective of peace education and environmental education programs is the internalization of values, attitudes, skills, and patterns of behaviors, it is difficult to evaluate the achievements of such programs. The tests and exams normally used in schools are unsuitable for the evaluation of peace education and environmental education since they do not evaluate state of mind, but rather the level of acquired knowledge.

Therefore, evaluation of peace and environmental education requires special techniques suitable to measure different types of outcome. This paper describes and analyzes the evaluation and monitoring tools developed and used by The Youth Environmental Education Peace Initiative (YEEPI). In order to understand the challenges, the needs, and the context within which these tools are used, a description of the program and its goals is provided below.

Case Study: YEEPI

Program Need

Israel is a country where much of the population lives separately due to religious and cultural differences. This segregation often results in harbored feelings of animosity and distrust toward the "other". Despite close physical proximity to each other, from kindergarten to the university, Arab and Jewish students almost always attend separate institutions. They are often raised with contradictory narratives of history, as well as different experiences of citizenship under the same nationality (Hesketh 2011). Geographic and residential segregation are also a norm (Be'eri-Sulitzeanu 2013).

Although different societies face their own environmental challenges, Israel, being a small country, faces environmental conditions that affect virtually everyone (Tal 2002). For example, each year it is estimated that hundreds of people die from respiratory diseases, of which numerous cases are caused by air pollution. Additionally, all rivers in the coastal plain of Israel are currently polluted and the water is no longer suitable for drinking or swimming.

The program described in this paper addresses the critical need to bring together and reduce conflict between the young populations of Arabs and Jews while addressing environmental issues. It promotes strategies that enable teenagers from separated communities to learn about each other and to reduce stereotypes and mistrust, while simultaneously learning about their shared environment.

Program Description and Goals

In 2011, Israeli Jewish and Arab alumni of the Arava Institute for Environmental Studies (AIES) founded the Youth Environmental Education Peace Initiative (YEEPI). The AIES is the premier environmental education and research program in the Middle East and is affiliated with Ben-Gurion University. The institute houses academic programs, research, and international cooperation initiatives on a range of environmental issues in order to prepare future Arab and Jewish leaders to cooperatively solve the region's environmental challenges. Students at AIES study a range of environmental issues from a transboundary and interdisciplinary perspective while learning peace-building and leadership skills. With a student body comprised of Jordanians, Palestinians, Israelis, and students from around the world, the AIES offers students a unique opportunity to study and live together for an extended period of time; building networks and developing an understanding that will enable future cooperative work and activism in the

Middle East and beyond. YEEPI is an example of the cooperative work and activism encouraged by the institute. YEEPI was initiated, developed, and currently operated in cooperation between AIES and the Towns Association for Environmental Quality, Agan Beit Natufa (TAEQ), the first regional environmental unit in Israel's Arab sector.

YEEPI aims to transform the religiously and ethnically segregated education system in Israel by creating ongoing partnerships between Arab and Jewish schools. In this way, the program aims to reduce tension and conflict between Jewish and Arab Israelis in order to advance solutions to common environmental issues. Environmental education serves as a neutral ground and common interest that brings together two segments of society, who have, on a daily basis, little in common. YEEPI's specific objectives are:

- To improve participants' perceptions of the "other" by facilitating positive experiences;
- To provide a platform for cooperation between Jewish and Arab educators;
- To create a model that can be adopted by schools in Israel and other parts of the Middle East to contribute to environmental cooperation; and
- To create environmental awareness and encourage environmental activism within schools and communities.

YEEPI is currently active in ten schools; i.e. five pairs of Arab and Jewish schools. Each pair of school is led by a team composed of one Jewish and one Arab YEEPI leader, who are alumni of the Arava Institute and have academic knowledge about environmental issues and the necessary experience in conflict mitigation. Once a week, the leaders visit the schools together to teach a class of students.

Target Groups

YEEPI works with primary and secondary target groups to ensure that the coexistence approach of the program is active on all levels. The primary targets are high school students (9th and 10th grade), since (a) this is the age at which most young people in Israel speak Hebrew well enough, and (b) the students are beginning to form their own opinions about society and their role in it. The primary target group is formed by 250 high school students from five Arab Israeli and five Jewish Israeli high schools located all over Israel.

The secondary target groups are the Arava Institute alumni, and high school teachers and headmasters of participant schools. Becoming YEEPI leaders allows the Arava Institute Arab Israeli and Jewish Israeli alumni to obtain first hand teaching experience and to inspire a new generation of young people to overcome political tensions. Also, YEEPI understands that in order to influence the primary target group (high school children), the teachers' and headmasters' perception of the "other" and their willingness to cooperate with each other need to be re-shaped.

Implementation

The YEEPI program is implemented during the school year and consists of weekly lessons about the environment and society's impacts on it. These lessons build on common knowledge and lay the foundations for future discussions between students of the two schools. A pair of YEEPI leaders, with assistance from one of the schoolteachers (the lead schoolteacher), organizes activities around environmental issues, such as:

- Global and local environmental challenges;

- Basic concepts of environmental sustainability: ecological footprint, tragedy of the commons, and biodiversity; and
- The connection between environment, society and economy.

During the weekly lessons, students learn to trust the YEEPI leaders who act as positive role models of Jewish and Arab Israelis working together. This weekly routine, enhanced by group talks, games, and workshops, is the basic tool by which YEEPI is able to positively influence students and school staff in regards to peace education and cultural capabilities.

The paired Jewish and Arab classes meet four times during the year. The first meeting is a field trip in which students are introduced to each other for the first time. During the field trip, environmental material, which YEEPI leaders previously introduced to each class separately, provides the common ground. Later on, each class invites the other to visit their school. These visits are very exciting for the entire school as many students outside of the program are also interested in the visitors. The school year concludes with students from all ten participating classes gathering for an Annual National Conference. This is the last meeting between paired classes.

Table 1. Activities during the school year

	Activity	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
1	Creating Familiarity	▨	▨	▨						
2	Education Part I: Environmental Lessons	▨	▨	▨						
3	First Meeting between Partnered Schools				▨	▨				
4	Education Part II: Environmental Classes				▨	▨	▨	▨		
5	Second and Third Meetings[2]					▨	▨	▨		
6	Education Part III: Environmental Projects							▨	▨	▨
7	Annual National Conference (Fourth Meeting)								▨	
8	Evaluation and Preparation								▨	▨

1. *Creating Familiarity*: The time during which YEEPI leaders, teachers and students are getting to know each other. This is when the foundations for trust, cultural understanding, and dialog are established.

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[2] One pair of schools had more private meetings between students. Students were invited to stay overnight in each other's homes during visits to each others' school and village. This level of trust between the two communities was a result of (a) dedication of the headmasters and involvement of numerous teachers in each school, and (b) a long-term relationship. These schools have worked together for more than ten years and serve as models for YEEPI.

2 and 4. *Education Part I and II*: Lessons on local and global environmental issues, environmental sustainability, ecological footprint, the connection between environment, society and economy, and cultural differences (Arab/Jewish) in the perception of nature.

3. *First Meeting between Partnered Classes*: Prior to this first meeting the YEEPI leaders conduct a workshop with each class to prepare the students for the encounter. The meeting between partnered classes takes place during a study trip to a neutral and natural place; i.e., a location with no distinguishable Jewish or Arab ownership. The outdoor study trip is connected to the material already taught in class. The students get to know more about their peers through games with educational content. After the meeting and separately in each class, students discuss impressions and feelings.

5. *Second and Third Meeting between Partnered Schools*: During the second and third meetings, each class hosts their partner class at their school for one morning. The program includes a tour of the school and environmental games and activities to get to know each other better and to strengthen the connection between the classes.

6. *Education Part III, the Environmental Project*: At this time in the program, the students conduct self-initiated environmental projects. In most cases, the environmental project is carried out in each school separately, although in 2012 two pairs of schools completed joint Arab-Jewish projects[3].

7. *Annual National Conference*: The conference is an event prepared for all ten YEEPI schools. This last meeting between the partnered classes is a celebration among hundreds of students and tens of teachers and headmasters. On this day, YEEPI celebrates the companionship and mutual interest in the shared environment. It is a day full of activities that sum up the events of the year.

8. *Evaluation and Preparation*: The remaining lessons are dedicated to gather feedback about the previous year and to discuss the expectations for the upcoming year and beyond. The students' and teachers' feedback is one of the methods for evaluating the program.

Evaluation and Monitoring

The creation of YEEPI is a success on its own since it is the only educational network in Israel for multicultural and peace education through environmental education. YEEPI is also one of the few programs to promote co-learning between Israeli Jewish and Israeli Arab high schools, particularly with regard to environmental issues (Alkaher and Tal 2011). Contact and familiarity between groups of students and teaching staff of the paired schools partially attains some of YEEPI goals, although joint meetings in many cases fall short of bringing about the positive experiences and familiarity needed to change deep-rooted stereotypes (Salomon 2006;

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[3] Some of the projects completed jointly include:
   a. Tree planting by a pair of schools together in the courtyard of one of the schools. The students, teachers and headmasters of both schools, YEEPI leaders, and the mayor of the town in which the school is located did the planting.
   b. Tree planting by a pair of schools in the courtyard of a Mosque.
   c. Planting a school spice garden.
   d. Building a greenhouse for a school.
   e. Painting a classroom, arranging plants pots for the class, and cultivating a garden.

Bekerman 2007). A similar problem arises in environmental education as some of the educational activities do not always lead to the intended educational outcomes. Since these two educational topics (peace and environment) emphasize values, critical thinking, and a change in patterns of behavior, YEEPI has adopted and designed a set of assessment tools to measure the success of the program as accurately and appropriately as possible.

Assessment Tools

Learning how to reach the goals of the program while continuously improving the educational process requires evaluation and measurement on several levels. Thus, measurement and evaluation occur both at the end of the school year and throughout the year, as shown on Table 2. Continuous monitoring is necessary because the program operates within an apprehensive political reality with constant eruptions of violence. In addition, the program leads students and school staff in an unfamiliar educational manner. Thus, the YEEPI team must engage in ongoing evaluation and monitoring. Collection of data regarding students' and staff's state of mind is an intrinsic part of directing YEEPI.

Table 2. Measurement and evaluation tools

A) Measurement and evaluation at the end of the year	A-1. Students' environmental literacy, their self-perception, and their perception of others are all assessed using research tools at the beginning and end of the year to allow for pre-post comparison. A-2. Personal and group reflections and feedback about class activities are collected during a final workshop conducted separately at each class. A-3. Principals' and teachers' personal reflections and feedback are collected during final interviews.
B) Continuous measurement and evaluation during the year	B-1. Students' group reflections and feedback are collected during class workshops conducted with each class after every meeting between partnered classes. B-2. YEEPI leaders create reports about class activities. The reports circulate by email among YEEPI leaders and provide observations and lessons learned. Additionally, they allow the YEEPI leader to reflect on how they felt and what changes they should make. B-3. YEEPI leaders are continually observing and evaluating current activities using the previous year as a benchmark. B-4. Personal communications with school staff and students is needed to ensure that YEEPI's activities are adjusted to accommodate everyone involved.

The evaluation and monitoring is based on the overall picture that emerges from a combination of the assessment tools described above. The next paragraphs describe these tools in more detail.

A) Measurement and evaluation at the end of year:

A-1. Environmental literacy levels are measured by the Israeli environmental literacy questionnaire developed by the Arava Institute research team (Negev et al. 2008). More than one hundred questions are used to collect data about students' environmental knowledge, attitudes, and actions. A more intuitive research tool measures self-perception and perception of others (Bar-Tal and Teichman 2005) through drawings that may convey feelings. At the beginning and end of the school year, students are asked to draw three people: one person from their own ethnicity, one person from the "other" ethnicity in Israel, and one person from Spain. Most Israelis perceive Spain as a neutral European country that is not involved in the Jewish-Arab conflict. The logic behind the request to draw a person from Spain is to have a perceptional control group to understand the students' universal perception of the Jewish-Arab conflict. Appendix A includes the instruction for the drawings and some examples.

At the end of the school year, all students are asked to draw this same picture again. The drawings are qualitatively coded and analyzed. Trends that emerge at the beginning of the year (before participating in YEEPI) are compared to trends that emerge at the end of the year (after participating in YEEPI).

A-2. Each class that participates in the YEEPI program also participates in a workshop called "Personal and Group Reflections on the Outcomes of YEEPI." The goal of the workshop is to summarize the students' experiences with YEEPI and to allow YEEPI leaders to collect important feedback from the students. YEEPI leaders display photos and other material collected during the year to help students remember certain experiences. Appendix B provides examples of activities conducted during the workshop.

A-3. At the end of each school year, teachers and headmasters are asked to answer the following questions during an interview or through a written statement:

1. What were the positive results achieved by the program?
2. Would you like to keep in touch with the high school teacher with whom you have been working?
3. Did the possibility of working together on other projects arise between you and the other teacher?
4. Did the program benefit you professionally, personally, or both?
5. Please, refer to the program content and efficiency and evaluate YEEPI.
6. Would you like to continue your participation with YEEPI next year?
7. What are your suggestions for improvement?

B) Continuous measurement and evaluation during the year

B-1. A week after each meeting between partnered classes, the YEEPI leaders conduct a workshop with each class to gather students' reflections and feedback. Depending on the "atmosphere" and level of personal contact among the YEEPI leaders and the class, the YEEPI leaders may choose between a class conversation or an altered version of the end of year workshop. The group reflection and feedback are critical for buffering feelings and directing students towards positive outcomes after meetings between partnered classes.

B-2. The YEEPI leaders reside all over Israel making it difficult to arrange leaders' meetings in close proximity to the dates of the class meetings. Therefore, the YEEPI leaders send updates by email, usually after an "event". An event can be a positively or negatively outstanding class, a meeting between partnered classes, or a unique conversation with a teacher. These email exchanges serve as group support and group learning tools, which allow YEEPI leaders to better understand themselves and their peers. It also helps YEEPI leaders to reflect on their insights and to identify similarities and differences between the schools. Examples of these "event" report emails are shown in Appendix C. They are messages written by a YEEPI leader after the first and second encounters between his classes during the 2011-2012 school year.

B-3. In each pair of schools, the quality of YEEPI's activities depends on the YEEPI team and the school staff, although it is also influenced by the reality of ongoing events. Therefore, comparing the quality of different educational events between school years is complex, but some emerging trends regarding student participation and school staff involvement can be identified.

One of the YEEPI's evaluation criteria is the number of participating students per YEEPI class at each school. For example, during the second year, the number of students from a Jewish school nearly doubled from 20 to 36 students and in one Arab school the number of students jumped from 17 to more than 30 students. Such increases in the number of students taking part in YEEPI create new challenges for the YEEPI leaders as they attempt to maintain the standards of the activities and the intimacy among the students. Some discussions and group workshops are not suitable for groups larger than 20 students. YEEPI leaders are working to overcome these difficulties with the assistance of the school staff.

Another way of evaluating YEEPI's impact is by assessing the headmasters and lead schoolteachers level of involvement. During the first year, a staff seminar was held with YEEPI leaders. The seminar was well funded, but not a single headmaster participated and it was a challenge to encourage all of the lead schoolteachers to participate. During the second year, the event was held right after a violent event in Gaza and took place at the Einot Yarden Democratic high school, located in the northern tip of the country. Despite the fact that only nine days had passed since the end of the violence in Gaza, nearly 40 participants attended. Participants included teachers, headmasters, and representatives of organizations such as the American Embassy in Israel, the United States Agency for International Development (USAID), Citizens for the Environment in the Galilee (CFE) [4], the Town's Association for Environmental Quality in Agan Beit Natufa (TAEQ)[5], and Dead Sea and Arava Science Center[6].

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[4] Citizens for the Environment in the Galilee (CFE) is an environmental and social NGO founded in 1990 by Jews and Arabs residing in the western Galilee. CFE works to protect the environment and natural resources. It aims to investigate and to prevent environmental hazards that harm the ecosystem and human health, and endanger future generations. CFE has a Jewish-Arab board of directors and co-management team. More information at http://cfe.org.il/Dox/about_CFE

[5] The Towns Association for Environmental Quality (TAEQ) is an organization serving the six Arab towns at the Bet Natufa Valley in the Galilee. TAEQ is the first environmental initiative to arise out of the Israeli Arab sector. Its educational, scientific and advisory activities promote sustainable development while increasing public awareness and community-based action on environmental issue. More information at http://www.taeq.org/

[6] Dead Sea and Arava Science Center, under the auspices of Ben-Gurion University of the Negev, is operating in the lowest area in the world, where a rare combination of natural occurrences and geographical aspects of stress conditions (e.g. physical, geological and climatic) lead to the development of unique flora, fauna, and mineral compositions. The Dead Sea and Arava Science Center runs a range of research initiatives and conducts workshops for students on both sides of the Israeli-Jordanian border as well as educational activities on issues related to scientific research and human-environment relations. More information at http://www.adssc.org/he

The increase in attendance levels and the presence of several headmasters at this seminar demonstrated the gradual development and increased participation of school staff and indicated the augmented interest and faith in the YEEPI program. The seminar reassured headmasters, teachers, and YEEPI leaders that they may overcome the challenges at hand and use a difficult situation as an opportunity for productive dialogue. A thank you letter including a summary of the weekend seminar was sent to all participants. Appendix D includes excerpts from the letter.

After the seminar, the lead schoolteachers and headmasters from four pairs of schools (eight out of the ten) organized meetings to enhance familiarity and coordination of expectations. They were interested in forming conceptual symmetry, mutual coordination of expectations, commitment, and engagement. Likewise, YEEPI leaders interested in spreading information beyond the classroom sent a letter to students' parents, introducing themselves and the program and engaging parents in the subject matter that their children were learning. The orientation shift to increase parental involvement and the mutual coordination of the expectations of school staff were some of the positive outcomes of the second year seminar. Synergy continues to emerge as a key tool for the YEEPI program.

B-4. Personal communication is one of the most important evaluation tools that the YEEPI team has to assess school staff's and students' impressions. The intractable conflict in this region greatly affects both students and teachers. Constant evaluation by YEEPI members, on weekly or daily basis, is needed to ensure that YEEPI's activities are adjusted to accommodate everyone involved. The challenge is not so much monitoring; YEEPI leaders approach the schools amicably and base their connections with students and teachers on personal relationships rather than through their roles as professional facilitators. The real challenge is finding the flexibility to conduct an environmental workshop that relates to the morning news. As embedded in YEEPI's annual curriculum, YEEPI leaders emphasize during classes the impact of cultural dynamics on the management of shared resources and livelihood. During two years of activity (from September 2011 to June 2013), there were two periods (several days each) when the eruption of violence between Jews and Arabs resulted in civilian casualties. During these times, students' attitudes were affected as some students and teachers had relatives under fire. In these cases, the YEEPI leaders conducted specific workshops rather than the regular planned curriculum. The goals of these workshops were to encourage a constructive dialogue between students and to assist with coping and stress relief.

Outcomes of the Evaluation Methods

The fact that peace education and environmental education are so necessary in Israel today emphasizes the need for Israeli educators to develop and improve the current education system. YEPPI suggests using the evaluation procedures outlined in Section A: Measurement and Evaluation at End of Year at the preliminary stage of program planning and fundraising.

The methods outlined in Section B: Continuous Measurement and Evaluation During the Year evolved as different needs arose during the year. The key reason for B-1: Student Group Reflection is to allow students to go through an emotional cleansing process after each encounter. The information gathered from this reflection helps YEEPI leaders connect with students. It also helps them to prepare future activities based on the responses to the previous activities.

The second monitoring tool, the Events Reports, arose to fulfill the needs of YEEPI leaders to share their experiences, to obtain feedback from other program staff, and to give support to each other. These reports allow members of YEEPI to feel a sense of community and gain familiarity with all of the schools and people involved with the program. Although it was created

to meet a need, the reports became a useful tool that has helped expand YEEPI leaders' abilities and confidence. The Events Reports allowed YEEPI leaders to develop more realistic goals, since they became aware of what can be achieved during weekly classes and encounters.

The experiences of the first year of the program fostered the development of trust and familiarity between YEEPI leaders and school staff, which improved the expectations at the beginning of the second year. Although at the beginning of the first year school staff felt hesitation and an attitude of "let's give it a try," they began the second year with a more positive attitude: "let's do it again," and "this time I would like to…"

Finally, the use of personal communication fulfilled the need to share personal experience and to bond YEEPI members through their common desire to promote peace and environmental sustainability. All YEEPI leaders have worked, or currently work, as professional teachers. Most of the leaders' initial involvement with YEEPI occurred due to their studies at the Arava Institute and their persistent wish to create a new and improved reality for Israel and the region. Their motives are personal and, by sharing their experiences, they are able to influence others. They are recognized both as individuals as well as role models.

Conclusion

This paper sought to illustrate different methods of self-evaluation and ongoing monitoring and does not serve as a full picture of the process that YEEPI has been going through for the past two years. During this process there have been many challenges not represented in this paper, some of which are ongoing obstacles that YEEPI is working to overcome.

One of the most important tools for the YEEPI team is honesty to self and to everyone involved. Despite the reliance on vast literature published about peace education in Israel and on the unique personal skills that the YEEPI leaders accumulated during their studies at the Arava Institute as environmentalists and peace builders, the YEEPI team operates in a rather unknown conceptual and curricular space. In Israeli society, the Jewish and Arab sectors are in a constant dynamic process of change. For instance, results from studies regarding the public opinions of the two societies ten years ago do not necessarily reflect the social dynamics of youth, teachers, and parents today.

Therefore, the YEEPI team is learning how to promote peace through environmental education within the cultures YEEPI leaders come from. With great sensitivity, the YEEPI team aspires to find the appropriate way to work with students and school staff. Thus, the constant use of multiple tools for ongoing evaluation of students and staff serves as a compass toward positive peace-building encounters.

A criticism of YEEPI might be that it only influences a small group of Israeli Jews and Arabs - a few hundred students smiling together and dozens of educators who manage to work together (with a smile). This might be enough cooperation and friendship to let donors feel good, but it is insufficient to produce a significant change in Israeli society. Even though there is noticeable change in schools where the program is running, this change is comparable to a "drop in the ocean" for Israeli society. Extensive modifications are still needed to initiate a process that will change the face of Israeli society. However, the value of program lies in the premise that deep change in complex settings is gradual and may start from apparently small efforts.

More than anything, YEEPI has enabled team leaders to develop teaching plans and to gain experience. Leaders have gained the confidence and maturity needed to take bolder steps in decision-making and organizing activities. Two years ago, the team approached the task of

building the program with skepticism about the possibility of finding and establishing a network of ten high schools. Now, it is inconceivable that this group of schools will cease to meet and work together as long as the leaders of the program are accompanying them.

YEEPI's current ambition is to heighten the level of professionalism and to expand the number of schools in which the program operates. There are 630 high schools in Israel. If YEEPI is able to impart an effective multicultural environmental education that goes beyond the classroom – connecting with students, school staff, students' families, and communities in at least sixty schools - then, YEEPI would have a more perceptible impact on Israeli society.

YEEPI aspires to achieve a level of professionalism and educational content that will enable YEEPI leaders to accompany each school for the first three to four years. After this point, YEEPI hopes that the program will have encouraged the school staff to commit, even without or with only partial involvement from YEEPI, to maintain a friendly connection and to continue collaborating for the improvement of their shared environment.

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Appendix A: Measuring perceptions through drawings

Before distributing papers to the students, YEEPI leaders explain the activity as follows:

> *There is a university that would like to help YEEPI. The university professor has asked each student to draw three people:*
>
> *1. A Jew*
> *2. An Arab*
> *3. A Spaniard[7]*
>
> *The drawing is anonymous; do not write your name on the paper. The drawing cannot be right or wrong. The most important thing is to sketch whatever comes to your mind and to express what you think and feel.*

Figures 1, 2, and 3 are examples from the beginning of the 2012-2013 school year, prior to the students' first encounter with each other:
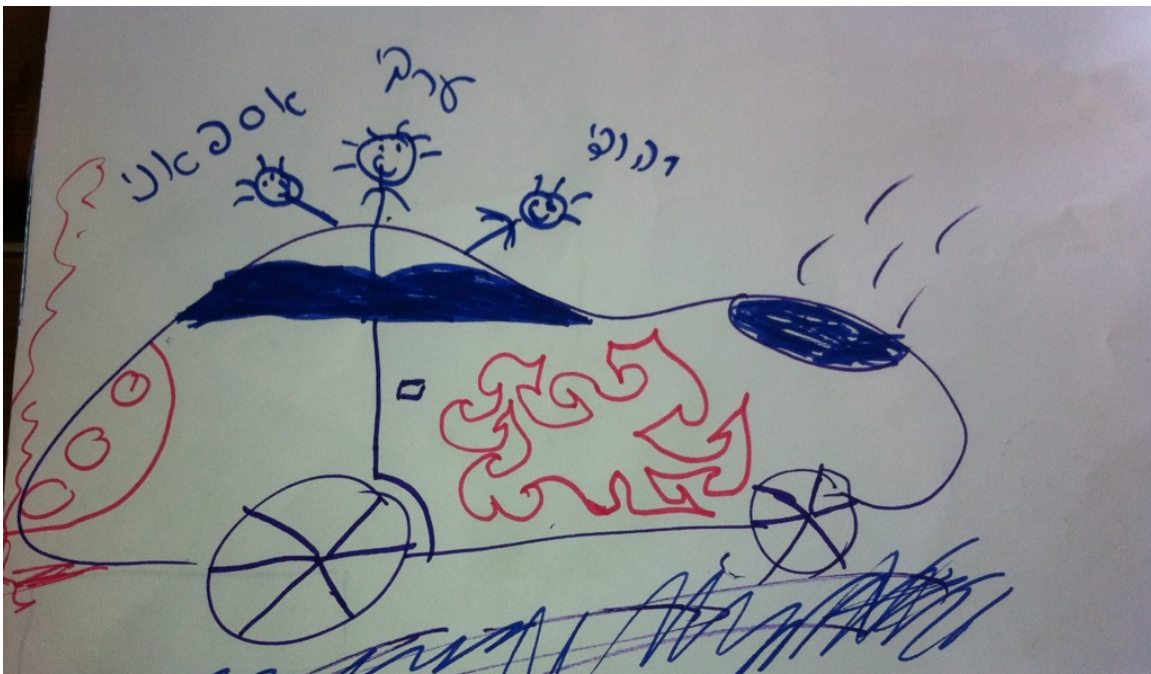

Figure 1. Drawing done by a Jewish student. In this sketch, all three ethnicities are smiling and going for a ride together

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[7] The order of ethnicity pointed out to the students is determined by their school ethnicity: in an Arab school, YEEPI leaders first point out Arab, then Jewish. The "Spaniard" is a reference point designed to direct the thoughts of the students to someone who is not related to the Jewish-Arab conflict in Israel. The selection of the Spanish nationality is not related to the religious majority in Spain.

Figure 2. Drawing done by a Jewish student. In this example, we see three religions prominently displayed and an allusion to violence. On the right is an Ultra Orthodox Jew holding the Shield of David and the Bible. He is saying: "Blessed are You, Lord our God, King of the world". In the center is a fundamental Muslim Arab holding a rocket and saying: "Allahu Akbar". On the left is a Christian Spaniard, holding a cross in his hand.
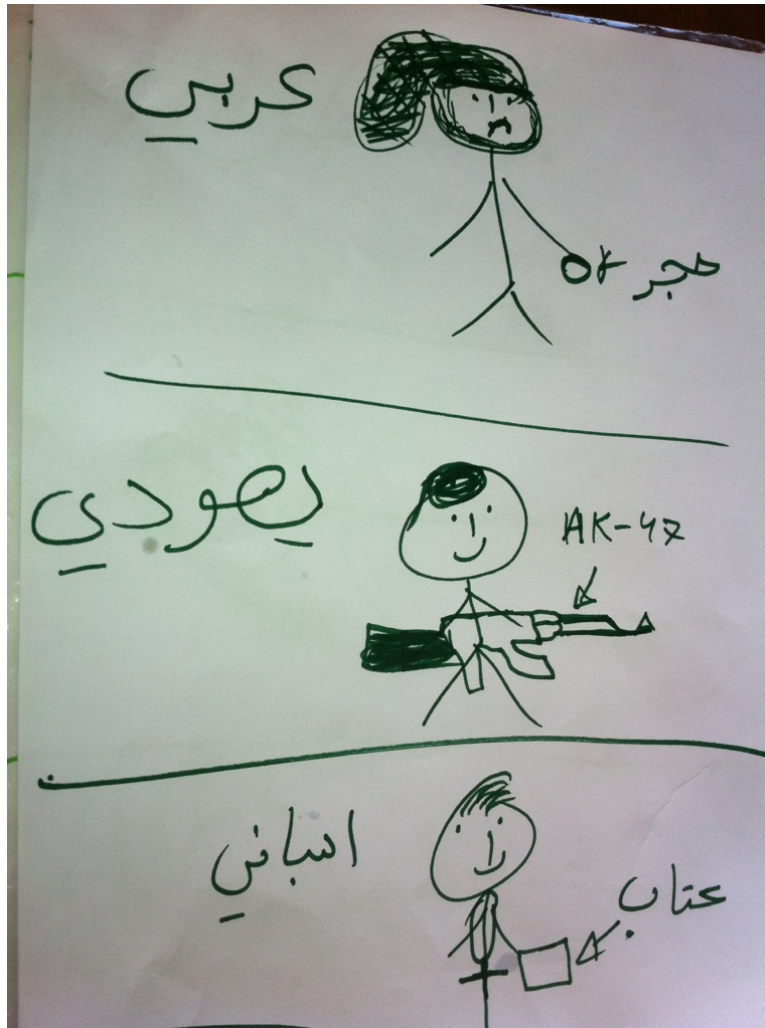
Figure 3. Drawing done by an Arab student. In this drawing we see the three religions prominently displayed and a reference to the ongoing conflict in Israel. On the top, an Arab person holding a stone, with a Ghutrah on his head, his expression is sad. In the center, a Jewish person is holding an automatic gun, with a Yarmulke on his head, his expression is happy. On the bottom, a Spaniard is holding a book, his head is uncovered, a cross is embedded in his body, and his expression is also happy.

Appendix B: Activities conducted during the personal and group reflections workshop.

Stage 1:

Option A:

The students go to a classroom where large sheets of paper are hung on the walls. On the top of each sheet there are different statements. The students walk around the room and write their feelings about the statement in the space below.

Option B:

Each student has a page taped to his or her back. There is a different statement on the top of each page. The students then walk around the room and write on each other's backs their feelings regarding the statements.

Example of statements:

1. What worried me in the beginning of the year was…
2. The best experience I remember from this year is…
3. I used to think Jewish/Arab people…
4. The day after the first encounter with the partner school, I …
5. From now on when I think about Jewish/Arab people, I …
6. The project taught me …

Stage 2: Activity to Provoke Discussion

YEEPI leaders take the sheets of papers to the center of the class and have everyone sit in a circle. Every student gets a marker and chooses one sentence from one of the pages. The students mark the sentence and explain to everyone why they have chosen this sentence. YEEPI leaders then open up a discussion about the statements.

Appendix C: Event Reports written by a YEEPI leader[8]

Report after the first encounter:

Dear Friends,

I want to start from the fact that I returned from the meeting with feelings of euphoria and contentment, and probably if I were not the every-day-man, I would let myself cry.

As far as I was concerned, before the meeting there were many question marks especially because the class did not show enthusiasm or willingness to cooperate. Actually, only 11 out of 20 students came from the Jewish school[9]. Some had reasonable excuse – exams, or being sick with a cold and needing to stay at home – but some did not want to participate in the meeting.

Fortunately, during the class meeting the students from the Arab school were initiating games and making connections. Without exaggeration, they literally forced the Jewish kids to communicate with them. 17 out of 17 students from the Arab school came to the meeting. It was really fun to work with my Arab partner, and the presence of (omitted name) *was really helpful.*

To summarize, I leave the encounter with a good taste and high expectations for what is to come in the future. I feel the connections between all those involved were taken to the next level – the connections between the leaders and the students, the teachers themselves, and the teachers to us.

Thank you to whomever was involved.

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[8] Original event reports were written in Hebrew.
[9] The school names were omitted.

Report after the second encounter:

Before the Jewish students were set to visit the Arab school, we facilitated preparation seminars for the students of both schools. During the preparation seminar in the Arab school, the students stated their desire to have activities that would allow for deeper getting to know each other. Additionally, the Arab school students took it upon themselves to organize lunch for their Jewish guests as a way of expressing a personal gesture.

In the seminar we facilitated in the Jewish school things were a bit more complicated. First of all, it's important to note that only 50 percent of the Jewish students were present in the initial encounter in the neutral location. So half of the group only heard about the visit, and did not meet the Arab students themselves. Secondly, the timing was different for the preparation seminars and, at the time of the seminar in the Jewish school, the situation in Gaza was bad. In the news there were reports about bombings and daily killings, the television was filled with pictures of kids and civilians running away. So, some of the Jewish students were quite emotionally charged at the seminar.

To be brief, we left the preparation seminar with feelings of anxiety and worry about the encounter in the Arab school. We didn't feel we had enough time to go through every issue that the students raised, and this made our concerns even greater regarding the preparedness of the Jewish students to be guests in the Arab school.

And now, as for the actual meeting in the Arab school: Generally speaking, we went along with the wishes of the students. It was all of the activities that allowed students to learn more about each other, and to continue what they had started during the first encounter in a neutral and natural place. The students talked in pairs about Facebook, environmental hazards in their town, environmental success stories in their town, their family, their room, and several other topics. Fortunately, because of cooperation from their teachers, the Jewish students were all present at the meeting in the Arab school (unlike in the first encounter) and it seems that their perfect attendance had a positive effect on all of the participants in the encounter. The students did cooperate and the conversations were deep and interesting. It was a real pleasure to see it.

Due to technical problems, lunch was later than we expected, so we had a window of dead time for which we did not have a plan. During this time, the students initiated spontaneous conversations and games. It was so fun that from now on, we are going to call these windows of time, "Live Time" instead of "Dead Time." It seems that free, unorganized portions of time are crucial, as they allow another layer of trust and social connection to emerge between individuals and between the groups.

Appendix D: Excerpts from a letter sent to participants of a weekend seminar for school staff, headmasters, and YEEPI leaders.

Shalom and Salam everyone:

Last weekend marks an excellent starting point for activities in the coming year.

On Friday, November 30th, we gathered at the Democratic School, Einot Yarden. The social and cultural diversity of those present was impressively vast…

Each and every one of us came with his or her own age, job, life experience, and aspirations... However, we found that we share the same values. We all strive to improve the quality of life and the environment in Israel. I think that everyone who attended felt the mutual wish to work together.

During one of the workshops, we divided into three groups: headmasters, teachers, and YEEPI leaders. During the discussions, the focus was on challenges, goals, and tasks that are important for building environmental partnerships between pairs of schools.

There were some continuous threads between the three groups:

1) Headmasters impact: Headmasters, your presence at training events, as well as encouragement on your part, are key factors. Your way of acting provides a legitimate place in the school (e.g. presentation of the project during a staff meeting with all teachers). Your participation enables teachers and YEEPI leaders to make a stronger impact with the students. It is difficult to coordinate a program between two high schools, especially because of all the barriers. It is important for us all that you get involved in our program and remain actively involved.

2) Reciprocity and symmetry (there are two elements in symmetry):

A. Conceptual symmetry: Mutual coordination of expectations, commitment and engagement. We must take the time to specifically meet to enhance familiarity and coordination of expectations.

B. Symmetry of the number of students involved: We need coordination within reason, that is, it must not simply be an accurate count of "student against student," but rather it entails two groups that can work together in joint missions and enjoy balanced experiences.

The challenges that we set ourselves require coordination and mutual support by us all. If we achieve only part of them this year, it will be a step forward. We all have an interest to participate in an effective, vibrant, and meaningful educational program.

Together we create a multicultural environmental partnership, it is for all of us and its success depends on all of us.

(Program Manager)