

Experiential Environmental Education in Russia: A Study in Community Service Learning

Mr. Silcox describes a people-to-people student exchange that had as its focus the environmental monitoring of Novgorod, a city in Russia – and the issues for further research that this exchange raised.

By HARRY C. SILCOX

ON 20 JUNE 1992 a group of 26 American students, teachers, and environmentalists left the United States to take part in a community service/experiential learning environmental project in Russia. They were part of a people-to-people exchange that had as a focus the environmental monitoring of Novgorod, Russia, a city founded in 859 with a present population of 300,000.

The Pennsylvania Institute for Environmental and Community Service Learning had organized and sponsored the project, which was to be carried out by students and teachers from the Environmental Academy at Abraham Lincoln High School in Philadelphia. As part of their regular school curriculum, the American students had been trained in the use of portable monitoring devices by teachers David Kipphut and Dolores Hughes and lab assistant James Kennedy. They took with them to Russia all the necessary materials and equipment for the testing of the town's environment.

When the Americans arrived in St. Petersburg, they were greeted by their

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Russian host, Alexander Popov, and his three assistants. The American group was transported to Novgorod by bus and taken to the city's finest hotel, the Beresta Palace, where they would stay for the first two nights. At that point we learned that the Russian hosts had not arranged for Russian families to house the American students as originally planned. Moreover, the promised laboratory to house the equipment had not been finished in time for the group's arrival. The original principal of High School 30, who was to make the arrangements, had been dismissed, and a recent teacher strike had brought the project to a halt. We decided to place the American students in the hotel and to invite a randomly selected group of Russian students to an introductory dinner/reception for the Americans. This get-acquainted dinner worked out well, and the American and Russian students matched up and made their own arrangements for boarding the Americans.

Despite these initial difficulties, the project began to take shape and form. On the third night, the American students moved in with Russian families. Each participating family had a child willing to work on the environmental project. A room in High School 30 was set up as a lab, and the Russians and Americans continued the process of getting to know one

another. The exchange of ideas and the intercultural dynamics of the living situation provided the Americans with ample experience for reflection, while the environmental study gave firm direction to the students' daily routine.

In all, the students undertook 14 discrete environmental projects. These included monitoring the levels of detergent, cyanide, cobalt, and nickel in the Volkhov River. Students also checked radiation levels. The environmental devices used to perform these functions, along with a complete portable environmental lab that could monitor air, water, and soil, were later given to the people of Novgorod for the establishment of a permanent American/Russian Environmental Education Center in the regional hospital.

An environmental conference held on July 6 and 7 further heightened the community's awareness and also attracted a number of scientists from Moscow. The American consul from St. Petersburg was represented by cultural attaché Bruce McGowan, who expressed the hope that other Russian cities would establish similar environmental centers devoted to research and teaching. He placed great significance on the hands-on nature of the projects and the civic pride that such programs bring to the local townspeople as they see community problems being solved by volunteers. It is this very combination of hands-on experience and community involvement, of course, that defines the experiential service learning approach.

In three previous visits to Russia, I had witnessed American professors trying to share information about U.S. science and business practices. Their attempts clearly

demonstrated the folly of trying to transfer knowledge through the sterile format of lectures supplemented by printed handouts. A single word in a translation could take several minutes to clarify, and these efforts sometimes proved futile.

By contrast, the Novgorod student-to-student project focused on hands-on experiential learning, reinforced by interpersonal connections that extended to the homes of the participating Russians. Neither the Russian students (ages 12 to 18) nor the American students (ages 14 to 17) spoke one another's language fluently. Nevertheless, they came to understand

And does this approach foster attitudinal changes in participants?

The use of the techniques of experiential service learning proved satisfactory in transferring knowledge about the environmental testing devices to the Russian students. Specific pre- and posttests established a high correlation between hands-on work and knowledge retention.

The pretest examining the scientific knowledge levels of the Russian and American students yielded mean scores of 11 and 10 respectively. The range of accurate responses on a scale of 1 to 20 was between 7 and 13 for the Russians

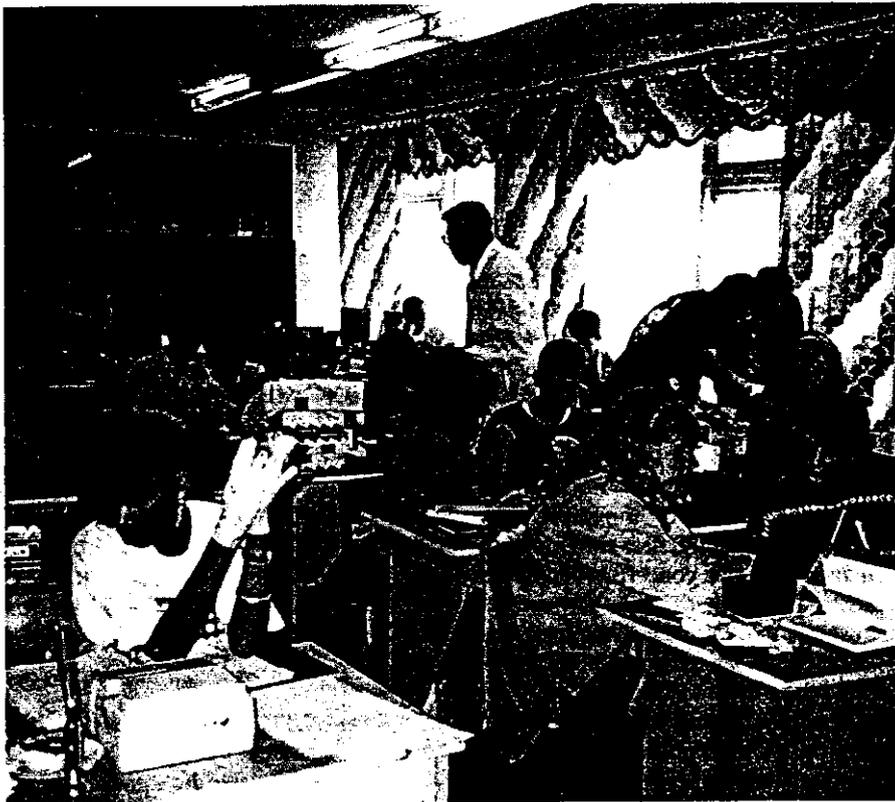
and 12 to 16 for the Russians. This is objective evidence that the hands-on service learning project enhanced the knowledge and retention of both Russian and American students. In the transfer of knowledge between two diverse cultures, experiential service learning may prove to be the most efficient and effective methodology.

THE TESTING for attitudinal changes on the part of the American and Russian students was a different matter. In the pretest, given before the students started working together, the attitudes of the Americans and Russians were generally comparable. There was no difference in their high level of concern for the environment, their sense of social responsibility, or their concepts of self. The Americans had a somewhat, but not significantly, higher intrinsic motivation. The only significant difference between the students was the Americans' decisively higher ratings in the area of general acceptance of others. In summary, when the program began the Americans were more trusting, and the Russians were more reticent.

After three weeks of working together, the students were retested. The most marked change in attitudes showed up in the students' beliefs about social responsibility. The combined sample of American and Russian students showed a significant increase in students' concern about societal issues and in their perceptions of their own roles as agents of change. They expressed a greater understanding of the need for group action and cooperation in confronting international problems. Environmental consciousness was emphatically higher in both Russians and Americans. Slight but insignificant increases occurred in self-confidence and intrinsic motivation.

However, neither the Russians nor the Americans increased their cultural tolerance for one another, despite their living together in private homes for three weeks. Nor was there any improvement in the students' willingness to accept one another's input. These were the most surprising posttest findings — ones that call for additional study.

The most striking change was in the Russian students' feelings about their own



Students analyzing air, water, and soil samples in the lab at High School 30 (now Novgorod Environmental High School) in Novgorod, Russia.

one another by going through daily life together, looking at photo albums, playing games, and using the environmental equipment. The American student group included two hearing-impaired youngsters. They, too, adjusted extremely well to Russian homes and were able to use hand movements for communication purposes.

This international experience raised two basic questions. Of what value is community service/experiential learning in transmitting knowledge between cultures?

and between 5 and 15 for the Americans, indicating no significant difference in the knowledge level of the participants. The students' hands-on monitoring of the environment directly applied many of the concepts covered in the pretest.

The posttest showed significant gains in the students' levels of scientific knowledge. The mean score increased to 12 for the Americans and to 14 for the Russians. The range of correct responses was raised to a span of 9 to 17 for the Ameri-

impact on the world. Russian students traditionally are not active learners. Instruction in Russian schools is typically authoritarian, repetitious, and based strongly on the writings of experts. A prevalent view exists among young Russians that "nothing will change," so effort is futile. This attitude is fostered by the utter hopelessness of a world that lacks opportunity for personal advancement and the chance of self-actualization.

Viewed against this background the results of the three-week service learning project seem even more striking. In a pre-test, the Russian students universally proclaimed a willingness to work on environmental issues, despite the feeling that these concerns were "solved more effectively in the U.S.A." A passivity underscored all the students' comments. Most felt that they could learn from the American student environmentalists, but few were convinced that they could subsequently change anything in their country.

When the posttests were given after three weeks of working with the American students, monitoring the environment, and presenting public papers at the international conference, the Russian students' responses to the questions had changed in tone to reflect a new spirit of optimism and power. A sampling of their comments attests to the growth of the students' sense that they can make a difference in the world:

I have a feeling of happiness and satisfaction that I have contributed what I could to the cleaning up of the city.

* * *

I have always tried to contribute a little, but nevertheless useful things to this important work. But before I didn't know what exactly had to be done and who exactly had to be addressed. Now that I know, I hope that I shall be able to try myself in this field (environmental activism). I now feel to be owing more to nature.

* * *

I think that I have changed. I feel a different person. Something has changed deep inside. I want to give more attention to nature and animals.

* * *

I perceive myself differently because I have communicated with American students, have worked with the environmental equipment, and have understood more things. I must do something to change the ways of my country.

These reflections indicate the power of a meaningful experience. *Doing something direct and measurable for one's community has a significant impact on the learning situation.*

Hardship, lack of the foods they liked, and a sometimes hostile environment brought the American students together and made them "friends for life."

The American students revealed their feelings and concerns during two reflection sessions with their teacher, John Dalton, while they were in Russia. Although they were accustomed to higher living standards in the U.S., the American students did not complain about the disparity between their hosts' homes and their own. However, in the first reflection session they expressed concern about the unequal treatment of the Russian students in the activities planned by the sponsors. The American students perceived an inequity when host Alexander Popov declined to pay for the meals of the Russian children and families invited to the get-acquainted dinner. Also, when the students went to St. Petersburg to visit Bruce McCowan at his home, the Americans were perplexed that Popov failed to invite the Russian children into the American cultural attaché's apartment. Popov's actions were predicated on the belief that he needed to take special care of his American guests, but the Russian students felt ill-used and viewed Popov's motives with suspicion. As these issues surfaced, the Russian students were included in more of the sponsors' planned activities.

In a second reflection session later in the trip, the students were much more vocal about the differences between the

two national cultures. The American girls were especially alarmed at the treatment they were receiving from the Russian boys. "Respecting their culture is one thing," one of the girls shouted, "but I'm tired of their treating me as an inferior and not answering me when I speak to them." The girls in the session all concurred that sexism is a real problem in Russia. They had difficulty understanding how Russian girls could acquiesce to their passive role so willingly. Meanwhile, the American boys had experienced yet another cultural disparity. Many of the Russian boys were continually asking their American guests for money to buy vodka for nightly drinking parties.

From these observations, the group moved quite naturally into an abstract discussion of establishing democratic leadership in the country. The conversation went something like this: if a Russian boy will not listen to a girl, Russian or American, even when what she has to say is correct and important, then knowledge transfer is impossible. How can Russian leaders, all of whom are male, become sensitized to issues when they remain, institutionally, so insensitive to women? As one of the girls remarked, "These guys think they know everything. They won't listen! How are they ever going to learn if they won't listen?" Much of what was said in the second reflection session lends credibility to the test findings that there were few gains in the area of students' willingness to accept the valid input of others.

CULTURAL impasses notwithstanding, the farewell exchanges between the American and Russian students were moving. Most of the Russians arose and walked miles for a 6 a.m. bus departure from the hotel — and this after there had been a formal farewell dinner two nights before. Watching this final scene, one would never have suspected the underlying differences between the two groups.

For the Americans, one very positive outcome was visible. They had come to Russia as a diverse group of students from grades 9 to 12. Many of them did not know one another before the trip. At the end of three weeks, they were a close-knit family. They supported and protected one another at every turn. Hardship,

lack of the foods they liked, and a sometimes hostile environment brought them together. At a third reflection session, held four weeks after the students had returned to the U.S., one student spoke for the group when he proclaimed that the best thing about the trip had been "all of you in this room, who are my friends for life."

The following conclusions can be drawn from the Novgorod experiment.

1. The nature of the project conducted through the student exchange — namely, the transfer of skills for environmental monitoring — had the effect of promoting a sense of social responsibility on the part of both Russian and American participants.

2. International student exchanges have almost universally been heralded for their ability to increase participants' acceptance of peoples from other cultures. This effect was not observed in the Novgorod exchange. While at the beginning of the exchange the Americans' willingness to accept others was measurably higher than

the Russians', by the end of the project neither group displayed increased tolerance.

3. Before and after the project, both Russian and American students showed a uniform concern about the environment. Clearly, the environment is an issue that has no national boundaries for young people. A significant increase in the knowledge level of both groups and an increased belief that something can be done about these issues occurred during the three weeks.

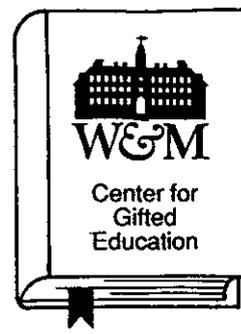
4. The general comparability of the Russian and American students was surprising. In most areas tested in the attitudinal study, they were far more similar than dissimilar.

5. The American students exhibited slightly more intrinsic motivation than the Russians. However, most of these motivational differences can be attributed to the more stringent selection process for the American students and to the sense of hopelessness that had become a cultural trait of the Russians under communism.

6. The environmental monitoring was carried out primarily by the Americans, most of whom were task-oriented. Nevertheless, a number of the Russian students became excellent monitors during the three-week period and were operating the environmental devices on their own. The service learning methodology produced a high transfer of knowledge about environmental issues. With increased knowledge came heightened concern regarding these issues. It would be interesting to compare the outcomes of this experience with the results of efforts to transfer knowledge between cultures using more conventional educational methodology, such as lectures, readings, and face-to-face discussions.

Because most student exchanges involve small groups, there is always some question about generalizing the findings from a study of a specific exchange. But the Novgorod experiment certainly yielded enough information to suggest a direction for further research on several interesting issues. ☐

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