



## Teaching Nonproliferation Issues at the High School Level

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In his 1920 *Outline of History*, English author H.G. Wells, describing the philosophy of Alexandria, remarked that “human history becomes more and more a race between education and catastrophe.”<sup>1</sup> These words are true today when we speak about the ways to prevent a nuclear catastrophe as well.

As one of the participants of the Critical Issues Forum (CIF), an outreach program of the James Martin Center for Nonproliferation Studies, I strongly believe in the power of education in preventing nuclear catastrophe. For six years I have witnessed how this program gives a chance to high school students from the United States and from Russian closed cities to learn about nonproliferation and disarmament issues, to meet and share their perspective on the most acute questions of this field, and to search for the solutions to many problems together.

My home city is Zelenogorsk (formerly known as Krasnoyarsk-45, a closed nuclear city). A closed city is a unique phenomenon, a leftover from the Cold War when such cities with nuclear facilities were founded, mostly in the Urals and Siberia. Not so long ago, the well-being of the populations of such cities directly depended on the continued development of nuclear weapons. Today, the majority of these cities are focused on peaceful nuclear energy production.

This paper is about my own experience, but it should be noted that each of the ten nuclear cities in Russia has its own unique experience with nonproliferation education, coordinated by the Novouralsk Information-Educational Center in the Urals.

My school has been a part of the CIF since 2004, which is when I first became acquainted with the term “nonproliferation.” My students are much luckier—they have a chance to know about nuclear weapons and all the efforts of the world community to eliminate them while still in high school. For several years now, I have been trying to find the best way to integrate nonproliferation issues into my teaching. Some of my colleagues expressed their concern that it’s too complicated a subject. My task was to make it understandable to teenagers.

So I started with the common knowledge that no society can live without rules. They help us to survive on the road, in the air, on the sea. If you follow all the rules, you won't die. Maybe children’s belief in eternal life comes from this. Later, children learn that even if they obey rules, but others don’t, everybody is in danger. Perhaps it is at this point we start suspecting we are not immortal. Since we have nuclear weapons, there are certain rules, which we

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<sup>1</sup> “H.G. Wells, *Outline of History* (Devon, England: George Newnes, 1919).

know as nonproliferation regimes. I learned about them during my first year of participation in the CIF, and as there was enough material, I compiled an elective course on nonproliferation and disarmament. My school administration was extremely supportive, as long as the course was taught in English. As teaching languages is subject-oriented, why not discuss international politics, nuclear physics, and nonproliferation regimes? There were quite a few students who were willing to learn about nonproliferation, so 2005–06 was the first official year of the elective course “English for Discussing Nonproliferation.”

In the fall of 2009 the course went online on our school website. This gives students a chance to learn about nonproliferation issues with students from other schools in my city (there are ten more schools in Zelenogorsk). Like any distance learning course, it has its advantages and disadvantages. But the advantages (accessibility, flexibility, activity-based learning, and more) outweigh the disadvantages, and since May 2009 my course has been in the all-Russia registry of distance-learning courses for high school students. It should be noted that distance teaching is combined with traditional face-to-face lessons, which both my students and I find ideal.

The Critical Issues Forum constantly supplies me with ideas on what and how to teach. Every year the CIF has a specific topic, and I study it together with my students. Teenagers really appreciate it when you tell them honestly you are not an expert in the new material and suggest learning the facts together.

There are a couple of teaching methods I would like to share. The first experience is connected with videoconferences. It all began with the idea to invite a *hibakusha* (an A-bomb survivor from Japan) to Zelenogorsk. Unfortunately, for financial reasons this turned out to be impossible. But this failure led to a very successful event—a videoconference meeting with an A-bomb survivor, Mr. Takashi Teramoto. It took a lot of effort to organize but didn’t cost us anything. All we needed was a computer connected to the internet, a projector, a screen, a microphone, and speakers. The session lasted an hour, and although we were afraid it was too long for the students’ attention span, it captured the attention of everybody. Our students had a chance to get firsthand knowledge about this tragic event and were able to ask questions. Teachers from other schools, who were also invited to the event, got really interested in the technology and the idea itself. All in all, it was a very emotional event. The final words of Mr. Teramoto—that violence causes only violence, and only memory helps us to avoid mistakes of the past—echoed in the hearts of all those present.

Afterward, my students told me they would like to listen to other survivors and asked why this meeting had been so short. Many of them told me they hadn’t even imagined how devastating the effect of the nuclear weapons could be and only by listening to someone who had lived through a nuclear attack did they understand the magnitude of destruction.

Before the videoconference, we prepared by arranging a number of events. These included:

- an A-bomb poster exhibition, “Lessons of Hiroshima and Nagasaki,” organized by my students, which would have been impossible without materials from the Hiroshima Peace Memorial Museum;

- a signature campaign to persuade the mayor of Zelenogorsk to join Mayors for Peace, which included public lectures about dangers of nuclear weapons and how nuclear war could be prevented; and
- a paper cranes campaign for elementary students, in which middle school students told youngsters about Hiroshima and Nagasaki and taught them to make paper cranes to be sent to Japan.

The CIF of 2009–10 gave us new ideas how to teach nonproliferation and disarmament issues. We worked closely with nongovernmental organizations (NGOs) in Russia and other countries. This cooperation helped us enrich our resource center with magazines, DVDs, posters, books, leaflets, and so forth. Our students also participated in various activities organized by NGOs:

- they recorded messages to the 2010 Review Conference of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), explaining why they want to live in a world without nuclear weapons (“A Message to the UN,” organized by the Federation of American Scientists, iCAN, and other NGOs);
- they made the Olive Tree of Peace stronger by writing short stories on the website of the People’s Decade for Nuclear Abolition Campaign, at [www.peoplesdecade.org](http://www.peoplesdecade.org) (an initiative of Soka Gakkai International, a Buddhist NGO), about why peace is important to them; and
- our students contacted fourteen NGOs from Russia, the United States, the United Kingdom, Japan, Australia, and other countries via Skype and e-mail and made a survey on their role in nonproliferation and disarmament.

Many CIF alumni from Zelenogorsk have chosen international relations or nuclear physics as their professional fields. But even those students who went into other areas are now more aware of nonproliferation issues and strongly believe in a world without nuclear weapons. Once the children of a closed city, they now have open minds.