

Project ICONS is Powerful!

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Currently, education comes under attack for trying to do too much and not succeeding at very much of that. A powerful teaching and learning tool that lives up to its billing should be much in demand. Here is a program that does quite a lot and does it well. Begun as a method of teaching political decision-making to undergraduates at the University of Maryland, high school students confront practical, real, and urgent international issues in a context that provides an authenticity of experience unobtainable elsewhere. Those who know about ICONS love it, yet few educators know of it. The program is Project ICONS, the International Communication and Negotiation Simulation offered by the Department of Government and Politics, University of Maryland. It is a program that addresses just about every positive aspect of education these days, that is, technology in the classroom, authentic learning, performance assessment, and the list goes on.

ICONS is a computer-assisted simulation, in contrast to a computer-based or controlled simulation. By its nature, a computer-assisted simulation allows participants full control over simulation events and evolution, encouraging the full use of social and language skills. The simulation described here involves about 20 high school teams, located around the 'real world', each representing a different country in the scenario. At present most of the country teams are found in the United States, however, the simulation in which my students participated contained members from Israel, Japan, and Canada.

ICONS, which includes high schools in several national sites and sites in foreign countries, links each school to the others by computer. Local microcomputers link the sites via international telecommunications data networks, which are national packet switching systems connected by satellite, into a central mainframe situated at the University of Maryland. The mainframe is equipped with sophisticated and easy-to-use software.

A simulation exercise creates a worldwide laboratory in which a personal computer becomes an educational link for students in classrooms around the globe. The technology behind the ICONS project at each school site is quite simple, yet the learning is multi-layered. Armed with simple communication technologies, one computer with a modem, and printer, school teams in different parts of the world explore and tackle foreign policy and diplomatic issues in a wide range of areas.

· A scenario launches the simulation, which represents the differing
· perspectives of countries on a variety of international issues, setting the
· stage for the interactions both within and among country teams. During
· recent runs of the simulation, the scenarios focused on the following
· problem areas in contemporary international issues: Middle East peace,
· the spread of nuclear weapons technology and the implications for stabil-
· ity of the international system, human rights, world health, and the impact
· of environmental issues on the global agenda.

· A class participating in ICONS generally knows which nation it will
· portray several weeks before the semester in which the simulation occurs.
· Students immerse themselves in the country and its pressing concerns
· during the first four to six weeks of class. This is the preparation phase.
· The second phase of the course is the four-week simulation, in which
· students analyze complex situations involving diplomacy, policy applica-
· tion, articulation of ideas, and decision making. Participants prepare
· positions and exchange messages to negotiate solutions for critical world
· situations. The third and final phase of an ICONS class is the debriefing
· phase. Over a two to four week period, students engage in forced reflec-
· tion concerning the negotiation, policy application strategies, and their
· own learning.

· A major task in the preparation phase involves the writing of a position
· paper by each country's team. Although this sounds like pencil and paper
· work, students were exposed to the latest methods of conducting research
· electronically. I was surprised at how enjoyable students found this phase
· of the course. We held class in the school library at least three times a
· week in order to conduct research. Students who had neither done an
· electronic search for periodicals nor used the Internet gained their first
· exposure to the information superhighway. Their frustration was that the
· references were frequently unavailable locally. Their joy was that entire
· articles could appear on the computer screen or be downloaded to a disk.

· Because access to the computer terminal in the school library was
· limited, I would find students in the library before class or even before
· school. In some cases, it became a race to see who could uncover the most
· articles. In the preparation phase of the class, students relied on each other
· for help in using the computer to do a search. A supportive and coopera-
· tive spirit developed in a short amount of time. I knew my students were
· definitely into their work when I received a phone call from a group one
· evening, on the second day of our spring vacation. My students were at
· the Library of Congress, about 20 miles from their homes, on their own,
· doing more research and had a question regarding their work. The surpris-
· ing fact is that these were second semester seniors who were due to gradu-
· ate within six weeks!

Conducting the information search during preparation, students encountered such issues as the Nuclear Non-Proliferation Treaty (NPT) and the United Nations Declaration of Human Rights. They briefed themselves on which nations were nuclear and which were not; on which nations violate human rights and how. Portraying a Middle Eastern nation, my students became experts on water rights, refugees, and terrorism. It was an exciting time for us because of the concurrent real world peace negotiations.

During the painstaking four weeks of the preparation phase, my students, and others involved in the simulation in different sites, desperately sought concrete answers to questions that confront world leaders. They faced challenging questions such as: should the economic rights to food, shelter, and employment be protected; do states have a right to decide who may settle in their countries; how can Nuclear Non-Proliferation Treaty non-signatory states be encouraged to sign the NPT; how will compliance be ensured?

Students enrolled in the course without having a complete understanding of the process or content. Throughout the preparation phase, I often heard comments such as, “If I’d known it would be this much work ...”, or “No one told me it would be this hard”, and “Where’s the textbook for this class?” These comments changed dramatically by the end of the course. “This was the most fun I’ve had in high school” and “I’m so glad I took this class”, were the remarks I often heard. The change occurred during the simulation phase of ICONS.

The University of Maryland established and monitors the problem situations for the simulation. During the simulation students exchange computer messages with other “countries” to solve international problems. On any given day of the 4-week simulation, it was usual to receive at least 50 messages from other negotiating teams. A message could range from a few words to a page or more, though there were no known limits on message length.

Class met for only one period of 45 minutes daily. We soon found that the entire class period could be devoted to message retrieval without leaving time for message composition or negotiation. Recognizing the need on their own, students worked out a system around which our class would function for the remaining weeks.

Volunteers retrieved computer messages on their free time. This turned out to be before school and during their lunch period. When class time rolled around, messages were sorted by topic and waiting for our committees. Class time then was available for more meaningful activities, such as committee meetings or message composition and negotiation. The

crush to the mail stack every day was exceeded only by the line of anxious fingers at the computer terminal waiting to send the latest message that might influence world events.

Six times during the simulation, country teams participate in conferences. A conference is a one hour period when teams dialog in “real time” regarding the specific questions they’ve researched. The response is immediate and students derive a sense of meaning and accomplishment from their work that no teacher can provide. The heightened student involvement produced by this experience is the factor that makes the use of this technology so unique.

At the end of the 4-week simulation, students were reluctant to abdicate their positions as world leaders. Up to a week or more after the simulation ended, students went to the computer and looked for messages anyway. “What can we do that will be as interesting” became the new challenge facing the class in the debriefing phase. In this portion of ICONS, students engage in forced reflection about their activities in the simulation. Then, in a final project, apply this new learning to a different problem or an extension activity.

Questions specifically about the negotiating process, the interdependence of issues, strategies used in decision-making and negotiations are areas we touched on in debriefing. Students were asked to reflect on and write about what their frustrations were, their accomplishments, leadership, power struggles, and learning. This is where all the hard work was rewarded, theirs and mine. Through forced reflection, students realized the processes that they went through in phase one and phase two. Individuals also had definite ideas on what they could have done differently to enhance the negotiations and speculated about different outcomes.

Students remarked that it was the only class that they did not feel they could miss each day and the class they wanted to stay in all day. One student, an habitual tardy, was not tardy during the simulation phase and even volunteered to retrieve messages before school. Another student who was reluctant to touch the computer during the simulation phase believed his greatest contribution was on-going research into the issues. He provided this information to his teammates.

Students became regular readers of the newspaper and weekly news magazines. At the start of the semester, they reported reading the newspaper 1-2 times per week with little or no interest in foreign affairs. At the end of the simulation (after 8 weeks), students reported reading the newspaper 5-7 times per week with most interest in foreign affairs. Their discussions in class on current events supports this self-report.

By pre-post tests, student knowledge was measured on the pertinent vocabulary and issues involved in the simulation scenario. For example, students were asked to identify Nuclear Non-Proliferation, Declaration of Human Rights, deforestation, and others. Through no textbook, homework assignments, drill and practice, only because they had to find out, did students learn these items. Where no one could define NNPT or Declaration of Human Rights at the outset, all were able by the end of the simulation, not only to identify them, but to expound on their significance.

In retrospect, I wish I had kept quantitative data on these factors. But, it was my first experience with the course and I did not know the combined power of Project ICONS and technology. The enhanced motivation and learning that I observed results from student desire to participate and from being a part of something perceived as important. Project ICONS is a program which has room for everyone's skill level and addresses the issue of active learning through technology-based education.

The computer-assisted simulation and current focus of Project ICONS makes the activity real to students. Their ability to solve problems will develop over time as the result of extended instruction, opportunities to solve many kinds of problems, and other real tasks. Looking forward to the next century, the fastest growing occupations will require employees to have much higher language and reasoning capabilities than do current occupations. In the current educational climate, how can we prepare American youth for this challenge? The development of non-traditional approaches, like Project ICONS, offering authenticity for the learner, is one way.

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