Global Education via the Web:

The GlobalEd Project\textsuperscript{1}.

Scott W. Brown, Mark Boyer
University of Connecticut

Hayley J. Mayall
University of Texas, San Antonio

Paula R. Johnson, Lin Meng, Michael Butler, Kimberley Weir, Natalie Florea, & Sally Reis
University of Connecticut


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Global Education via the Web: The GlobalEd Project

Abstract

The GlobalEd Project employs a technology rich environment for middle school students who choose to participate in a simulation of international relations and negotiation. A simulation consists of negotiations on a variety of international policy issues conducted by students from 10-15 schools through an Internet-based interface. This study reports the findings of middle school participants’ changes in academic knowledge, skills and interests from participating in a simulation of international relations. The results are discussed in terms of the current literature on problem-based learning (PBL).

Introduction

Our current age of globalization has spawned a wide spectrum of impacts and interactions, both expected and unexpected. Almost daily, we are confronted in the press and in our personal interactions with accounts of how globalization affects our lives through international conflicts, changes in oil or coffee prices, and natural disasters that affect thousands and sometimes millions of people on the other side of the world, or the local people right in our own neighborhood. We are also confronted with substantial evidence indicating that these changes are not benign, and that many actors are actively working to manipulate (or at least control) the effects of globalization at the local and individual level. Put simply, one of the major themes of life in the new millennium is “the global meets the local.”

All the evidence about globalization, particularly as it relates to individual level impacts, begs the question of how the next generation of citizens and policy-makers—today’s school children—perceive and interact with the world around us. From our daily experience as parents, teachers, and educated observers, we can provide answers to this question based on anecdotal data and intuition, and we have many stories to tell about the “globalism” of our children. We take lessons from our children on how to use computers effectively, where to find things on the Internet, and especially in the post-9/11 world, we hear them talking about international affairs casually, but in sophisticated ways. Their schools are regularly linked with schools and children in other states and other countries through exchange programs, and, more simply, through Internet interactions or cable TV access in the classroom. Clearly, our students have unprecedented access to a wealth of information about the world around us. The availability and possibility of global interaction for our children through the Internet and other resources, in turn, raises a number of important questions for parents, educators and policy-makers to grapple with as we work to socialize and educate our children so that they can succeed in a globally competitive and complex society.

The GlobalEd Project is a study designed to examine how we can begin
to understand how we may use current models of learning and cognition to prepare our students for the increasingly complex world in which they live. GlobalEd is a problem-based simulation embedded within the classroom that uses technologies, such as email and synchronous and asynchronous discussion formats, to facilitate communication between groups of students at various school locations, each representing a designated real-world country during the period of the total simulation (approximately 4-5 weeks). Students must interact with participants from other schools using the technology tools within the simulation in order to achieve the goals of the simulation: drafting and negotiating bilateral and multilateral agreements with other countries participating in the simulation. Students also learn to use web resources for studying the history, culture and values of their specific country, as well as gathering and evaluating a variety of facts and opinions about the politics and foreign policies of their assigned country.

The GlobalEd Project assigns students to a specific country several months prior to the start of the actual simulation. During this period, participating classes study their country with the goal of having students behave in a manner as if they were actually the government of the assigned country, not as Americans governing the country. In this preparatory phase, students learn about the people, economy, governmental structure, history and culture of the country they will be representing. They also learn about the policies of the assigned country regarding issues such as the environment, world health, economics, human rights, and international security, as well as how to solve problems, make decisions and conduct negotiations. The simulation is set six months into the future (to prevent students from "playing from events in the news") and all interactions are web-based.

The assessment instruments for the study are administered within two weeks prior to the start of the simulation and within two weeks following the end of the simulation. While there are a series of instruments administered to participating students, for the purposes of this study we will only focus on the knowledge, skills, and interest scales from the following subset of instruments:

- **Student Interest Survey and**
- **The Student Demographic Information**

Both of these instruments were developed specifically for this project (see Appendix A).

One of the goals of the GlobalEd Project is to promote the transfer of student knowledge and the application of the problem solving and negotiating skills (integral components for success in the simulation) during the simulation to other settings. “Consistent with this view of knowledge, learning must be situated in a rich context, reflective of real-world contexts for this constructive process to occur and transfer to environments beyond the school or training classroom” (Bednar, Cunningham, Duffy, & Perry, 1992, p. 22). One of the best ways to provide an authentic and rich context in an academic situation is through the use of problem-based learning (PBL). PBL has proven to be effective in simulating real-world contexts. In a problem-based environment learners work in teams...
reviewing, critiquing, testing each other’s ideas, and engaging in collaborative knowledge building (Scardamalia & Bereiter, 1994). Outcomes of a PBL collaborative environment have proven more effective in promoting retention, transfer, and reasoning strategies than the traditional method of instruction (Koschmann, Kelson, Feltovich, & Barrows, 1996; McConnell, 2000). As pointed out in Brown and King (2000), “[t]he ICONS simulation is an example of the use of interdisciplinary simulations that employ a constructivist PBL pedagogy” (p. 247).

Within the PBL environment, this study examines the role of gender and Knowledge, Interest, and Skills related to international studies, technology and student outcomes. Previous gender related research with adults has indicated that women are more peaceful and cooperative than men in their approach to world affairs and international violence (De Boer, 1985; Fite, Genest, & Wilcox, 1990; Frankovic, 1982; McGlen & Sarkees, 1993; Mueller, 1994, 1973). A large gender difference is not only apparent in leadership roles, but also in the use of technology. For example, Sanders (1986; 1994) reports that males outnumber females 3 to 1 in computer camps. The GlobalEd Project is designed to examine how these gender differences may be measured and impacted in an educational environment. While the scope of the project is large, this discussion will focus on gender and Knowledge, Interest, and Skills related to the reactions to educational activities during the simulation.

Lastly, the reader should note that the data and analysis that follow are products of an explicit collaboration between scholars from the fields of international relations and educational psychology. As such, the GlobalEd Project is based upon the assumption that the prospects for a better understanding of global phenomena and for viable solutions to global and local problems will ultimately rest with the generations to come, and thus on the global adequacy of our current educational structures. As Reardon (1988) states, “Education must therefore face up to the need to prepare the young for global responsibility, to understand the nature and implications of global interdependence, and to accept the responsibility to work for a just, peaceful and viable global community on planet Earth.” (p. xv)

Gender and Technology

A wealth of research exists regarding gender based technology differences that has emerged in conjunction with the increased proliferation of technology into society at large, and more specifically within the educational environment (Canada & Brusca, 1991; Craig, 2000; Crombie & Armstrong, 1999; Gipson, 1997; Harding, Hildebrand, & Klainin, 1988; Jackson, Ervin, Gardner, & Schmitt, 2001; Kirkpatrick & Cuban, 1998; Venkatesh, Morris & Ackerman; 2000; Wolfe, 1999). The manner in which these gender-based computer differences manifest themselves is wide ranging. One avenue of research concerned with how gender differences impact topics across a wide spectrum (including technology adoption) has generated findings suggesting that women are driven more by the functional abilities and uses for technology, rather than how powerful or fast and large technologies
are when selecting which technologies to use (Venkatesh et al, 2000).

Methods

Participants

The sample consisted of 260 participants, with 38% males and 62% females, in middle school (grades 6-8) across Connecticut, Maryland, New Hampshire, and Massachusetts, participating in the simulation during the winter of 2001-2002. The participants were from grades 6 through 8, and 86% of the participants were in grades 7 and 8. Eighty percent of the participants indicated they were Caucasian. While the actual number of student participants exceeded 400 across the simulation, only 260 students provided completed consent forms and responded to the survey items reported here.

Simulation Procedure

Students in classes were assigned their country six to eight weeks before the simulation and given five topical areas (human rights, global environment, conflict and cooperation, international economics, and world health). They were told that their country had to “stay in character” and that the scenario for the simulation in which they would be participating was set six months into the future. The objective of this future orientation to the simulation scenario is that it allows students to develop creative and innovative solutions to the problems presented to them, rather than simply regurgitating headlines or public statements of world leaders gleaned from the news media on a daily basis during the simulation.

Students were instructed to learn about the values and customs of their respective countries prior to the simulation, so that they would be prepared to make appropriate “in character” responses. Because of a large number of participants across 20 different classes, two middle school simulations were conducted simultaneously. Among the 20 classes, a total of 12 countries were represented; however, no overlap of countries occurred within a single simulation (see Appendix B for a list of the countries). The United States was played by a college team and served to provide some level of control and consistency in the subject matter. The data from the college team is not included in the analysis of student responses.

An experienced doctoral student in international relations served as the simulation coordinator (SIMCON) for each of the two simulations. The role of SIMCON is to monitor the on-line discussions, review email transmissions between countries, provide control over the simulation so that countries stay in character, insure appropriate diplomatic language is used, and answer questions about rules and procedures for the participants. The issue areas and specific issues required in the simulation are listed in Appendix C.

The simulation lasted a total of six weeks and students participated each school day in the simulation, whether through on-line conferences, e-mails to other countries, searching the web for information, or preparing diplomatic documents and responses. Additionally, students were able to use their own computers from home or other public access points to draft documents, review data, and collaborate within their own country or with other countries. However, there were no student names exchanged between countries nor were
there any references to the gender of specific student negotiators. Only names such as Brazil (human rights committee) were used to communicate with Nigeria (human rights committee). Since the simulation software provided the email and discussion access, the anonymity of the participants was maintained between countries. Students were restricted to the use of the simulation software for intra- and inter-class/country communications.

**Results**

**Instrumentation**

The students were administered a series of instruments via the web, collecting demographic information and knowledge, attitudes and interests, and behaviors and skills regarding international politics, using computers, working in groups, and problem-solving. Items also focused on related activities, such as the frequency of reading the newspaper and watching television for national and international news. Although data was collected through a variety of instruments, this paper will only discuss the results of the Student Interest Survey combined with a few descriptive statistics from the Student Demographic Information (See Appendix A for the instruments).

**Student Demographic Information**

The pre-simulation results of the Student Demographic Information revealed that overwhelming majority of the participants were American citizens (98%). The majority of participants had access to a computer at home (96%) and 91% reported having an Internet connection at home. Thirty-seven percent of the participants reported spending more than two hours per week on the Internet. Nearly all participants indicated they plan to attend college (90%) with a wide variety of intended majors reported. The majority read a daily newspaper at least sometimes (63%). However, 31% reported that they watch the local news at least sometimes as well as the national news on television.

**Knowledge, Interest, and Skills**

A Knowledge, Interest, and Skills scale was created for each participant by summing the associated items and dividing by the number of items from the GlobalEd Student Interest Questionnaire. In this way, the scales remained on the original scale of measurement. The Knowledge scale was created by calculating the responses across items 1, 3, and 4 (these items were on a 10-point scale, and thus they were first divided by 2 to obtain a 5-point scale), summing them and dividing them by the number of items contributing to the scale; Interest in school was created by calculating the items across items 20-25, and 28; and Skills were created by calculated the items 5-8. All three scales were created in a similar manner. With the exception of one set of moderate reliability estimates, the pre- and post reliability (Cronbach’s alpha) estimates for the scales were in the acceptable range (Gable & Wolfe, 1993): Knowledge, .62-.71, Interest, .84 and .87 and Skills, .88 and .88. The lower reliability estimates for the Knowledge scale may have been related to the small number of items in this scale.

A repeated measures ANOVA conducted on the Knowledge scale resulted in a significant effect of Testing (pre- and post-testing) \(F(1,252)=57.62,\)
p < .001], but no Gender effect or Testing by Gender interaction, (p > .05). These results indicated that students showed a significant increase in Knowledge from pre to post-testing. The results associated with the Knowledge scale should be interpreted with caution due to the low reliability estimates.

The analysis of the Interest scale yielded a significant Gender effect [F(1, 225) = 14.68, (p < .001)], indicating that there was a difference in males and females with regard to interest in school. Table 1 contains the means and standard deviations for the pre and post Knowledge, Interest, and Skills scales.

The analysis of the Skills scale resulted in a significant Time by Gender interaction [F(1, 225) = 4.82, p < .05)]. As females reported an increase in skills over the simulation, while males reported a decrease (see Figure 1).

Table 1

<table>
<thead>
<tr>
<th>Scale</th>
<th>Knowledge Pre</th>
<th>Knowledge Post</th>
<th>Interest Pre</th>
<th>Interest Post</th>
<th>Skills Pre</th>
<th>Skills Post</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>2.33 (.75)</td>
<td>2.60 (.81)</td>
<td>3.53 (.78)</td>
<td>3.42 (.81)</td>
<td>3.49 (.85)</td>
<td>3.39 (.96)</td>
</tr>
<tr>
<td>Females</td>
<td>2.22 (.75)</td>
<td>2.67 (.76)</td>
<td>3.86 (.75)</td>
<td>3.86 (.77)</td>
<td>3.69 (.88)</td>
<td>3.80 (.74)</td>
</tr>
</tbody>
</table>

Figure 1.

Time by Gender Interaction for the Skills scale.
Knowledge, Interest, and Skills: Descriptive Data

Students were asked “What are the top 3 things you hope to learn from the simulation?” and “What were the top 3 things you have learned from the simulation?” in the pre and post simulation Student Interest Questionnaires respectively. Their responses were read and coded by two GlobalEd team members and then rated by a trained independent rater. The themes that most students declared they had hoped to learn or learned from the simulation follow:

- technology skills,
- communication skills,
- cooperative skills,
- negotiation skills,
- problem-solving/decision making skills,
- human rights,
- international relationships,
- digital divide,
- knowledge,
- environmental issues, and
- healthcare issues.

See Appendix D for the list of themes and their definitions. The frequencies of each theme were counted and a series of Chi-Square analyses were conducted to examine pre/post differences, gender differences as well as an interaction between pre/post and gender. The analysis revealed the following:

- The frequencies in citing the following themes were significantly higher in post-simulation test than that in pre-simulation test:
  - communication skills $[\chi^2(2)=15.878, p<.05]$,
  - cooperative skills $[\chi^2(2)=15.358, p<.05]$, and
- negotiation skills $[\chi^2(2)=35.586, p<.05]$.

- There is a significant difference between boys and girls in response rates of problem-solving/decision making skills across pre and post tests: Girls mentioned this theme more often than boys $[\chi^2(2)=6.372, p<.05]$.

- No significant gender by simulation interaction was found.

Participants’ Comments

Previous simulations have resulted in students’ responses regarding what they had gained from the educational experience revealed two prevalent themes: Negotiation and group work/cooperation. When asked to identify the top three things gained from the simulation, many students continued to support the themes of negotiation and cooperation, with no observed difference in response patterns by males and females.

Participants of both genders reported gains in working and cooperating with others and understanding different points of view. The following are sample of quotes from participants’ responses to what they gained from the simulation:

- It’s hard to agree with other countries when you can’t see through their point of view.
- I have learned about the issue of women’s rights and how it affects our world positively and negatively.
- I learned that to convince people to go your way you must tell them all their benefits.
- I learned how to communicate with people over the internet.
- I have learned that when dealing with foreign countries and people,
you must learn to see things from all perspectives.

**Discussion**

Although no gender differences in knowledge were found, both males and females significantly increased their knowledge scores after the completion of the simulation. Despite that data from a comparison group was not utilized in this specific analysis, the statistically significant increase in knowledge reported from pre simulation to post simulation gives merit to the value of the PBL environment. These findings are consistent with the literature concluding that PBL is effective in simulating real-world contexts and that these environments aids students in working collaboratively and in building knowledge and skills (Scardamalia & Bereiter, 1994).

A number of statistically significant results were found from both the qualitative and quantitative analyses regarding skills such as cooperation, negotiation, communication, and problem solving and decision-making. In the pre-simulation survey, students were asked what they hoped to learn from the simulation. After the simulation, students were asked to reflect on what they had learned and list the three most important things learned. One of the statistically, significant findings, from pre to post, was an increase in the presence of Communication skills. A similar pattern was found for Negotiation skills and for Cooperative skills, which increased from pre to post simulation. Communication skills included vocabulary, development of opinions, listening to others, writing skills, and understanding other’s perspectives. Negotiation skills included conflict resolution, debate, and leadership while Cooperative skills included working in groups and collaborating. According to Scardamalia and Bereiter (1994), in PBL environments students review, critique, and test each other’s ideas. In order for this productive learning process to be successful, students must collaborate and cooperate. This collaboration, cooperation, and the process of reviewing, critiquing, and testing each other’s ideas are essential for the GlobalEd students to be “successful” diplomats. As a result, the findings that demonstrate increases in communication skills, cooperation skills, and negotiation skills are consistent with the outcomes of students in PBL environments.

Previous research suggests that gender differences exist in men and women, boys and girls’ approaches to leadership, decision-making, and technology (see Reis, 1998 for a review of the topic). Naglieri and Rojahn (2001) also found that girls scored higher than boys on planning and attention tests. In this study, planning consisted of “making decisions about how to do things, selection of the best method to complete a problem, monitoring the accuracy of the solution (e.g., remembering to check one's work), and determination of when the task is accurately completed” (Naglieri & Rojahn, 2001, ¶3 Discussion). In accordance with these researchers, findings from this study indicate that females still out perform males in problem solving and decision-making. This result is also supported by a quantitative analysis that shows that over the course of the simulation females reported an improvement in problem solving, negotiating/conflict resolution,
and teamwork. On the other hand, while females improved, males reported a decrease. These findings may also be explained by Welsh and Pennington (1988) and Welsh, Pennington, and Groisser (1991) who explained these gender differences in attention and planning as a result of the maturation of the prefrontal cortex and the executive function. These researchers defined executive function as the ability to mentally represent a task, devise a plan, and employ the plan at the appropriate time. In the GlobalEd simulation, students were constantly making decisions about how “their country” would react to various situations, what strategies they could utilize, what repercussions they might face, and when the appropriate time was to act.

One surprising finding is that gender differences in communication skills, defined as verbal/vocabulary knowledge and abilities, development of a voice or opinion, listening to others, and writing skills, were not present. This result contradicts various research studies that have indicated that females outperform males in verbal skills (Anastasi, 1958; Maccoby, 1966; Naglieri & Rojahn, 2001). However, the lack of a statistically significant gender difference in communication skills aligns with other researchers who have indicated that gender differences are disappearing (Feingold, 1988; Hyde, Linn, 1988). One alternative explanation, proposed by Halpern (1989), suggests: whether gender differences are present or not depends on where you look. That the GlobalEd results only exhibited gender differences in problem solving and decision-making indicates that many of these gender differences are not present, at least at the middle school level.

Interest in school also exhibited significant gender differences where girls scored higher than boys; however, the effect size was very small, $\eta^2=.06$ (Cohen, 1969). This result supports the findings by Gentry, Gable, and Rizza (2002) that significant gender differences existed for interest in classroom activities, with females indicating more interest than males but with a small effect size.

**Conclusion**

As technology rich PBL environments continue to be developed and implemented across curriculum and grade levels, whether in the public schools, grades kindergarten through high school, or college and universities at the undergraduate and graduate level, the outcomes need to be studied and delineated so that we can more fully understand the impact of these educational and technological advances. The present study reports on the implementation and several outcomes from such a technology rich PBL environment and has generated both questions and answers.

The importance of a well-designed curriculum that appropriately integrates technology into a classroom cannot be overlooked. Rather than seeing technology as an external part of the process “curriculum design needs to blend technology concepts into academic subjects” (p.37). The GlobalEd Project is just one example of a successful integration of educational technology into a PBL environment that engages students in interdisciplinary activities as they use educational technology to solve problems, research the positions of specific countries on issues and topics, and communicate with one another in
the class as across states. These results need to be interpreted with some caution because the measures reported here are self-report measures, nonetheless, statistically significant increases were found.

Nevertheless, we can conclude that the GlobalEd project is an educational intervention designed to help us understand how best to meet the needs of students as they prepare for today and tomorrow in a technology-rich PBL environment. Also, it was designed to help students learn the skills of negotiation-conflict resolution that are essential in our current world climate.

References
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Boston, MA: Allyn and Bacon Publishers.


Appendix A

Instruments

The Student Demographic Information

This questionnaire is being administered to all students participating in the GlobalEd project at the University of Connecticut, Storrs. Although we are requesting your name for identification, your responses to these questions will be kept strictly confidential and only used to match pre-post and follow-up data. All data will be analyzed in a group format and no names will be revealed.

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First Name ______________________  Last Name __________________________

Date of Birth:  Month __________  Day ________________  Year ______________

Gender:  Male          Female

Grade:  __________________

Country Assigned: _______________________________________________________

Email address: ____________________________________________

Permanent Mailing Address:

    Street: __________________________________________

    City ________________  State _____  Zip Code _________

Ethnicity: ________________

Are you a U.S. citizen?  Yes     No

    If no, of what country are you a citizen? ___________________________

Do you fluently speak or read any languages other than English? (check all that apply)

    ____ Spanish       ____ Japanese       ____ French
    ____ Russian       ____ German         ____ Chinese
___ Other

Have you traveled outside of the United States?  Yes  No

What is the reason you took this course? (check all that apply)
___ Required  ___ Interested in the topic  ___ Heard it was a good course
___ Diversity credit  ___ Distribution requirement  ___ The reputation of the teacher
___ Other

Do you plan to go to college?  Yes  No  Not Sure
If you plan to go to college, what major(s) are you considering?  ______________

Do you have access to a computer at home?  Yes  No
If you have a computer at home, do you have access to the Internet?  Yes  No

Do you read a daily newspaper?  Yes  No  Sometimes

Do you read a weekly news-magazine? (Such as Time, Newsweek, or another similar periodical)  Yes  No  Sometimes

I watch the local television news  Never  Sometimes  Often

I watch the national news  Never  Sometimes  Often

Indicate the average number of hours per week that you spend on homework for all your classes.
___ 1-2 hours
___ 3-5 hours
___ 6-10 hours
___ 11-15 hours
___ more than 15 hours

Indicate the average number of hours per week that you spend on homework for this class.
___ 1-2 hours
___ 3-5 hours
___ 6-10 hours
___ 11-15 hours
_ more than 15 hours

What grades do you usually get on your report card?
___ A’s
___ B’s
___ C’s
___ D’s or less

What grade do you expect to receive in this course?
___ A
___ B
___ C
___ Less than C

On average, how much time per week do you spend using the Internet? (Either in school or at home)
___ None
___ 1-2 hours
___ 3-5 hours
___ 6-10 hours
___ more than 10 hours per week

Do you feel your technology/computer skills have improved over the course of the simulation? 
___ Yes  ___ No

If Yes, please indicate which skills and why.
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Would you participate in another technology intensive course? ___ Yes  ___ No
Student Interest Survey
This questionnaire is being administered to all students participating in the GlobalEd project at the University of Connecticut, Storrs. Although we are requesting your name for identification, your responses to these questions will be kept strictly confidential and only used to match pre-test to post-test and follow-up data. All data will be analyzed in a group format and no names will be revealed.
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<p>| For the following items use the 10-point scale where 1 is the lowest level (no knowledge or interest) and 10 is the level of an expert. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1. Rate your knowledge about the country that you have been assigned. |
| Low | Moderate | Expert |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 2. Rate your interest in the country you have been assigned. |
| Low | Moderate | Expert |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 3. Rate your overall knowledge of the other countries in the simulation (whose roles you were NOT assigned). |
| Low | Moderate | Expert |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 4. Rate your knowledge of American foreign policy. |
| Low | Moderate | Expert |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 5. Rate your skills for working in groups in educational settings. |
| Low | Moderate | Expert |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 6. Rate your problem solving skills in educational settings. |
| Low | Moderate | Expert |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 7. Rate your negotiating / conflict resolution skills. |
| Low | Moderate | Expert |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 8. Rate your communication skills (speaking and writing). |
| Low | Moderate | Expert |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |</p>
<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. I am very interested in the topic of international relations.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10. I am very interested in international economics</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11. I am very interested in international environmental issues.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12. I am very interested in international politics.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>13. I am very interested in computers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>14. I am very interested in reading about international issues.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>15. I am prepared to discuss topics related to international economics.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>16. I am prepared to discuss topics related to international environmental issues.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>17. I am very good at using computers for my homework.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>18. I am very good at conducting research using the computer.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>19. I am very good at searching for information on the Internet.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>20. I am very good at working effectively in a group on class projects.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>21. I enjoy school.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>22. I like my classes.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>23. I am always well prepared for tests and quizzes.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>---------------------------------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>24. I always complete my homework on time.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>25. I always participate openly in class discussions.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>26. I enjoy working on group projects in school.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>27. I am able to see issues from other people's perspectives.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>28. I am motivated to do well in school.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

**TEXT FILL-INS**

Indicate the top three (3) things you learned from this simulation / activity.

1. __________________________________________________________________
2. __________________________________________________________________
3. __________________________________________________________________
Appendix B

Countries in the Simulation

Algeria
Brazil
China
France
Germany
Japan
Kenya
Nigeria
Pakistan
Russia
South Africa
United Kingdom

United States (note this country played by a college team)
Appendix C

*Issues and Issue Areas in the GlobalEd Simulation*

Issue Area: Conflict and Cooperation
Issue: National Missile Defense Systems

Issue Area: Global Environment
Issue: Global Climate Change

Issue Area: International Economics
Issue: The Global Digital Divide

Issue Area: World Health
Issue: HIV/AIDS in Africa

Issue Area: Human Rights
Issue: Women’s Rights
Appendix D

Student Self Reported Outcomes

Themes

1) Technology skills
   a. Computer skills
   b. Internet
   c. Web

2) Communication skills
   a. Verbal/vocabulary
   b. Listening to others
   c. Writing skills

3) Cooperative skills
   a. Take part in groups/peers
   b. Collaborative work
   c. Working in groups
   d. Understanding other’s perspectives

4) Negotiation skills
   a. Conflict resolution
   b. Debate/argue
   c. Leadership
   d. Diplomacy language
   e. Development/voice opinion

5) Problem solving/Decision making
   a. Looking for solutions
   b. Evaluating data and messages
   c. Interpreting data
   d. Searching for information

6) Human rights
   a. Women issues
   b. Poverty (needy people)
   c. Education
   d. Safety issues
7) International relationships
   a. Politics/Diplomacy
   b. Economics
   c. History
   d. Culture
   e. Diversity

8) Digital divide

9) Knowledge
   a. Getting information
   b. Research skills
   c. Knowing
   d. Learning

10) Environmental issues
    a. Pollution
    b. Warming
    c. Waste
    d. Natural resources

11) Healthcare issues
    a. AIDS
    b. Immunization
    c. Children