### **BUILDING GLOBAL BRIDGES**

By Denise Sigworth

Schoolcraft College has applied for a grant to strengthen and improve instruction in international studies and foreign language.

The **goal** is the development of model programs for the integration of International Studies in Business, Culinary Arts, and Nursing. Faculty will also develop a new liberal arts transfer program in International Studies.

### **Program Objectives**

- Strengthen and expand international courses in the four model programs by developing language and cultural components specific to the discipline.
- Integrate specialized teaching materials of computerized tutorials, relevant reference books, and interactive classroom experiences for student's study of language and culture.
- Establish course embedded study opportunities abroad for faculty and students.

### A Closer Look at Model Programs

International Studies: This proposed new program will be designed as an associate's degree liberal arts program for transfer to four year colleges and universities. It uniquely incorporates two years of foreign language study, travel abroad, and internationalized General Education courses.

**Business:** Faculty in the Business division seek to internationalize its curriculum through to bilateral educational relationship with "sister" institutions from Mexico and Canada to provide exchange learning opportunities for both faculty and students which includes Internet interaction, international research, foreign study, and internships.

**Culinary Arts**: To increase students' exposure to international cooking, the culinary arts faculty is internationalizing its curriculum through two international cooking classes.

This project would also enable faculty and students to compete in international shows and participate in student exchange programs. The faculty and students would compete in 1999 in Basil, Switzerland, and in 2000 in Singapore.

**Nursing:** In a plan to internationalize the nursing program, curriculum revisions in fundamentals of Nursing I and II will include the study of different cultures and religions and how the patient/nurse relationship is impacted by these differences. The faculty will specifically study the health care systems in India and Japan. A "Global Point of View" workshop will be offered for faculty, students, and nursing graduates.

### Internationalizing "Domestic" Courses

by LaVonda Ramey

Cost accounting is a class that I never considered being a candidate for international instruction, but I have found it to provide a powerful international experience for students. The core content of the course is to teach students how to determine and record the cost of making a product or rendering a service. An assignment that gives the students "handson" experience is the cookie project.

I divide the class into groups of 3 or 4 students (the companies). Their product is chocolate chip cookies. The students must decide on product specifications and find a suitable recipe, procure materials, assign labor responsibilities, decide on a manufacturing facility (whose kitchen), obtain equipment, design a job cost card; make the product and determine and record costs. The students then bring their cookies to class, make an oral presentation and the class votes for the best product.

This fall the class will take this project a step further. After the class selected the best recipe, I assigned the groups to a country to begin for-

eign production. I adjusted the recipe to metric measurements and Celsius temperature, since I could not take away their U.S. measuring cups and spoons and ovens. It will be up to the students to figure out how to convert the measures and research their country's dietary preferences, availability of materials, labor laws and customs, and finally produce a product for that market and do a cost report. The research need not be extensive and may simply involve talking to a native from the assigned country. The countries that were assigned are: India, Morocco, Switzerland, Mexico, Hungary, Japan, and Australia.

Kevin Gawronski, of the culinary arts department, and Rachna Parakh, a student employee, have graciously offered to answer as many questions as possible. I am asking for your help in getting names of people (SC employees, students, relatives, friends, etc.) who would be willing to answer any additional questions my students may have. The aim of the project is to give the students experience trying to mass-

produce a product, yet fine tuning it to meet local needs. It is also to build an awareness of some of the issues a multinational company encounters. Third, it is to provide a memorable, fun, educational experience. My extension is **5122** and I would appreciate any help you could give. I am also interested in information regarding other countries for future classes.



### by Evan Garrett

Yes, I thought that title might get But have no fear: your attention. there are not jack-booted United Nations thugs in blue berets poised behind the PE Building to wrest control of our fair campus. (The geese we encounter afoot pose a much more likely and less assailable "clear and present danger.") Rather, let me draw your focus to the evolution of Schoolcraft's History courses toward a more global perspective, a view we're pleased to share with a growing number of offerings in the internationalized curriculum.

Historians bear an awesome responsibility. Quite simply, we're supposed to make sense of everything. Human successes and failures, religion, floods and famine, motives and consequences, sheer folly, wonder drugs and nuclear holocaust, Mother Theresa and Charlie Manson, you name it ... everything that ever happened is an element in "history," and we have some obligation to consider it.

On the other hand, it is patently impossible to cover everything. "History," therefore, must narrow its focus, discriminating between those events and circumstances, victors and victims which appear "significant" and those which do not. Ah! But by whose judgment, whose values do you determine what is "significant"? These choices have determined our perceptions of history from the beginning.

In the "old days," history depended on the written record. As we understand it, documentation began with the first literate civilizations some 5000 years ago. Of course, "literate" pertained only to a small managerial élite -- priests, officials, and scribes -- and the record reflected their interests almost exclusively. For millennia, history remained a narrative of "kings, names, and dates," the public-relations effluvia of personages who deemed themselves worthy of remembrance.

As others emerged from the shadows to assume more prominent and self-actualizing roles in the human drama, they too began to demand Hebrews and space in the record. Greeks, for example, perceived that common people -- at least, some of the more highly inspired individuals among them -- deserved regard and we recite many of their names and accomplishments even today. When intellectual, scientific, and economic revolutions overwhelmed the traditional élites in the West in the last 500 years, we find merchants, inventors, and parliamentarians accorded a voice in the annals of the Now, women and times as well. other "underclasses," so long unrepresented and ignored by those who judged their contributions "insignificant," expect due consideration in the historical equation.

Over the past twenty years or so, historians have evolved a new perspective, reflecting the fact that much of the "historical" evidence is not written and emanates from times and peoples beyond documentation. This new view acknowledges that cultures and civilizations did not develop in perfectly discreet compartments: populations, ideas, and technologies have mingled and influ-

enced each other since the Paleolithic. Consequently, we have reconstituted the study of history to include 1) greater emphasis on the
cultural foundations established in
prehistoric times and the emergence
of the first civilizations, and 2)
broadened coverage and appreciation of all of the world's peoples and
cultures, not simply those that western Europeans at one time or another discovered to be particularly
useful, or frightening.

After a number of years of teaching the courses in the new manner, the History Department decided to update the formal catalog descriptions ("honesty in advertising," as it were). The result can be seen in the 1997/1998 Schoolcraft College What were offered as Catalog. Western Civilization courses are now presented as HIST 134 Ancient World, HIST 137 Early Modern World, and HIST 138 Contemporary World History. We are pleased that all three have been accepted among the SCII "internationalized" courses. We look forward to sharing with the rest of you in the task of integrating everything that has ever happened into a global perspective.

# Mathematics Education Video Research from the Third International Mathematics and Science Study Rheta N. Rubenstein

Last April I had the opportunity to hear Dr. James Stigler, professor of psychology at University of California at Los Angeles, address the National Council of Teachers of Mathematics (NCTM) on the video research portion of the Third International Mathematics and Science Study (TIMSS). Dr. Stigler is well known as the co-author with Dr. Harold Stevenson of the University of Michigan of *The* 

Learning Gap, an international comparative study of U.S. and Asian mathematics educational programs. Stigler's work with TIMSS is in a similar vein. He reported to us about a review of 300 hours of videotaping of eighth grade classrooms in Japan, Germany, and the U.S. The study was based on national random probability samples, the first ever of its kind. Stigler explained that the choice of the three countries was based on their being global international competitors.

He first addressed the issue of why this study is important. First, we learn how we in the U.S. are teaching. The study may inform the debate about current mathematics education reform in the U.S. For example, there is concern in California in some quarters that despite their forward looking framework, national test scores are at the bottom of the nation. Was reform really implemented in California? No one has collected data on this. Second, we get images of genuinely alternative ways of teaching. Interestingly, Japanese teachers teach very much the same way as one another. U.S. teachers do, too. Stigler pointed out that how we teach is very cultural and therefore difficult for us to be aware of. We need to see choices that we have and make them consciously.

Next, Stigler shared findings. The study included both quantitative and qualitative measures. For example, one measure was percent of classes that were interrupted.

	Germany	Japan	US	
Class Interruption Rate	13%	0%	31%	

In relating this, Stigler told us that researchers from all three nations were viewing the tapes together. One of the ground rules was that whenever any researcher requested, the tapes would be stopped for discussion, clarification, replay. The first time the Japanese researcher saw an interruption he stopped the tape. "What is this?" he inquired. This was truly totally foreign to him. In Japan class time is sacred and never interrupted.

Another quantitative finding was on time in class used for discussing homework and doing homework.

	Germany	Japan	US
Classtime discussing homework	37%	10%	33.3%
Classtime doing homework	2%	0%	18.5%

Notice that the US has less than 50% of instructional time for developing new material, while Japan has 90%.

There were also differences in time spent "stating a concept," e.g., to divide powers with the same base, subtract their exponents, versus developing the meaning of a concept.

	Germany	Japan	US
Teacher time stating concepts	24.9%	15.5%	82.7%
Teacher time developing con- cepts	75.1%	84.5%	17.3%

While Germany and Japan were essentially the same in this regard, the U.S. clearly has a different pattern in which teachers tell students far more often than they help students develop concepts.

When students are working at their seats in class, what are they working on? The researchers looked at three categories reported below.

	Germany	Japan	US
Practice what you know	89.2%	42.5%	94.9%
Apply what you are learning	6.3 %	13.8%	4.9%
Prove or invent new math ideas	4.5%	43.8%	0.2%

The striking feature of this table is the very high rate at which Japanese teachers expect students to prove or invent new ideas in contrast to the low rate at which this is done in either Germany or Japan.

One curious indicator surveyed was the percent of lessons in which an overhead projector was used and the percent in which a chalkboard was used.

	Germany	Japan	US
Use chalkboard	92%	100%	66.7%
Use overhead projector	25%	6%	58.8%

Stigler wondered, "Would U.S. students do better if we shut off the overhead and went back to lower tech methods?" What is behind this big difference? On analysis, researchers decided that both U.S. and Japanese teachers recognize the fact that students need help in "paying attention." In the U.S., teachers use overhead transparencies to guide students' attention. In Japan, the blackboard is the unerased record of everything that has happened in the class to that point. For the student who "wakes up" mid-period, the record is still extant for him to refer to when he is ready. Perhaps we'd be better off leaving examples on display longer. Stigler pointed out that this example illustrates that we can't interpret the indicators simplistically.

Finally we looked at a sample video. Stigler pointed out that the overall "scripts" of the classes fell into two categories. In the U.S. and Germany, a lesson generally includes a teacher explanation, the teacher showing examples, students practicing at their seats and the teacher helping individual students. In Japan the basic lesson consists of the teacher posing an overarching problem, students grappling in groups with the problem, students called upon for presenting ideas or solutions, class discussion of solutions under teacher orchestration, teacher

summarizing and focusing students on the critical idea he wants students to understand. In the sample video of an eighth grade Japanese geometry lesson students were presented with a brief recap of the previous day's lesson and were then given a sophisticated problem to solve. The recap used dynamic geometry software on a computer to demonstrate that when a triangle is trapped between two parallel lines one of which contains a side of the triangle, the vertex on the opposite side can slide along the parallel line and the area of the triangle remains unchanged. The problem posed was for the students to find a way to divide an irregular shape into two equal areas. They were given three minutes to begin independently, then 15 minutes to work with partners. The setting of the problem was to pretend that two specific students in the class had to share the territory. The teacher then orchestrated a discussion of various solutions before focusing students on the main ideas they should be gleaning.

One critical difference between the two "scripts" was what the teacher was doing while the students are working at their seats. In the U.S. the teacher would tutor individual students. In Japan the teacher would observe the various approaches being generated and plan the follow-up discussion - which solutions would he have presented, in what order, what questions would he pose to teams, how will he make the key point for the lesson?

One question of great interest was how well the lessons observed conform to the NCTM's Standards documents which are guiding current U.S. reform efforts. The Japanese lesson was problem centered and involved lots of student thinking and explanations, attributes promoted by NCTM. It was fairly teacher centered, however, and abstract. The context was fairly contrived and there was little evidence of cooperative learning. These would get negative scores on the Standards. Stigler noted that we must be careful not to let the Standards divert attention from the real goal which is student learning and understanding. Also, he cautioned against our trying to copy in some superficial way the qualities of Japanese teaching. The goal must be finding ways for our students to make sense of mathematics.

In the question and answer segment, one question was whether Japanese students spend more time on mathematics. Stigler said, "No." While they have a longer school year there are many other curriculum and cultural areas built in to that time. He said that U.S. students spend more time in mathematics classes, but as the evidence shows, the time is spent differently. Other differences: Japanese assess only at the school level but on a national curriculum, there is no tracking, and there is no standardized testing.

He also shared with us knowledge about teacher education in Japan. Teachers there learn to teach over a ten year period. Nearly all teachers are members of lesson study groups which meet weekly and focus on lesson planning. They watch one another teach, they critique one another's lessons (not the teacher but the teaching), they take turns trying the same lesson, they critique again, and so

on. They may work for months perfecting a single lesson. This is a strategy by which professional development grows from very direct analysis of instruction. They have no "reform" movement in Japanese education, instead there are mechanisms for continuous improvement.

More information is available on an on-going basis on the World Wide Web at http://wwwcsteep.bc.edu/timss and at http://ustimss.msu.edu/.

### The French Experience

by Arthur Lindenberg

A new course, "The French Experience" (International Education 201), will give students an opportunity to study for two weeks in France. The catalog description of the course says that it "provides students with an introduction to modern France. The class will cover modern civilization, history, art, and literature and



language. Special emphasis will be placed on the American expatriate experience.

The highlight of the course will be a two week trip to Paris and environs with excursions to surrounding areas."

**Arthur Lindenberg**, the instructor of the course will meet with students twice a week for four weeks prior to departure. Students will receive information on travel preparation, locale, current customs, foods, health, and other issues in addition to the academic concerns. Another feature of the course is that students will be taught elementary tourist French by a French instructor.

After students arrive in France, they will visit various neighborhoods, major monuments, museums, markets, and shops. They will spend time at suburban sights such as Versailles Place, and will also take an excursion to the chateaux country in the Loire Valley.

Students will taste French food and will have the opportunity to attend some cultural events.

Travel arrangements will be made by a reliable agency and will include round trip airfare, hotel accommodations, some meals, transfers, and taxes.

After students return, they will complete projects that they had begun prior to leaving. These may take the form of a paper, presentation, or both dealing with some aspect of French culture, art or literature.

For further information, contact the International Education Office F570 extension 5226.



"How do you want it the crystal mumbo-jumbo or statistical probability?"

## Language to Learn

As explained in the AOL International Newsletter "Namaste" is the Hindi greeting most commonly heard throughout India, pronounced "nah\*mah\*stay." Used as either hello or goodbye, this reverent salutation means a little bit more by acknowledging the humanity of

the person to whom you're speaking. A rough English translation would be "I recognize the good in you." **Sumita Chaudhery** provided an additional translation. "Namaste" is a combination of "nama" (I bow to you) and "hastay" (with folded hands).

### "LUMINARIES IN FALL"

by Sumita Chaudhery

Every year, by mid-December, in and around my neighborhood, luminaries are delivered to every house whether previously ordered or not. Every year the neighborhoods' stalwart helpers like to see luminaries lit on every lawn on Christmas Eve in a homogeneous form. Luminaries are also used for celebrations other than Christmas and have significance in other religions.

Of course, every Christmas, a tall, fragrant pine tree adorns our family room; however, every year I feel I could have used the luminaries not in December but in October or November, during Diwali. Diwali, or Deepavali as it is often called, means Festival of Lights and marks one of the biggest and grandest celebrations in India. It comes twenty days of Dussehra (another important religious celebration) on the new moon during the dark fortnight in October or November. The exact date is taken from the Hindu calendar and, since that calculation is different from the Julian calendar, it varies every year. This year the two nights of Diwali were October 30 and 31.

Though Diwali is celebrated in various ways in different parts of India, the common aspect throughout the country is the hurry and scurry in readying for the occasion.

Many weeks before the celebration, merchants stock up on goods that will be sold for gift giving: a variety of colorful animal shaped sugar candies along with specialty sweets such as laddoos, chum-chums, and gulab jumuns; firecrackers of every size, shape and sound; clothes of the latest designs; and colorful baubles, from glass bangles matching new outfits to silver, gold, and even diamond jewelry for those who can afford to be extravagant. Houses are cleaned and decorated with alpana, colorful floral and geometric designs, painted at the entrance or in the foyer. Window ledges and doorways are cleared to make place for the earthen lamps that will be lit for two or more nights. Women prepare their special savory and sweet dishes to exchange with relatives, friends, and neighbors.

But being very diverse and flexible in their interpretation of the meaning of religious festivals, Hindus of the north and the south celebrate Diwali as the occasion of good rejoicing on Lord Rama's return from Lanka after his victory over the monstrous king Ravana. In eastern India, however, this burning of lamps on the new moon marks a worship for the dead on the first night, and, on the second night, for Goddess Kali, the metamorphosed, fearsome, feminine force of destruction. Needless to say, this festival is about the worship of this protection from all harm, of the light of wisdom, and of the knowledge that God can take mysterious forms to aright the wrongs of the world.

So every year as I smell the crisp Fall air and see the sun cast a bronzed autumnal glow, I think that having the luminaries lit in October or November would surely be a way for me to express and for the neighborhood to learn, perhaps even accept, that people indeed come from diverse backgrounds and that neighborhoods need not be homogeneous in order to be harmonious.



"Watch out for Donlan. He came back from Tokyo with a black helt in collective bargaining."

#### **Writers Invited**

There are a number of international cultures represented at Schoolcraft College. If you would like to share information about your culture please contact the editor at extension **5128**.

We would like to feature a different culture with each issue of **The International Agenda**. Your contribution would be appreciated.

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