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REAC¹TING

THROUGH TEACHING

A NEWSLETTER HIGHLIGHTING CLASSROOM PHILOSOPHY AND PRACTICE AMONG KENNESAW FACULTY

VOLUME ¹/₈, NUMBER ¹/₂ • WINTER 1995

Collaboration: The Key to Success

Jane H. McHaney, Professor of Elementary & Early Childhood Education

This is one of the first stories about a professional development school in Cobb County, one of several partnerships between school districts and Kennesaw State College's School of Education. The Holmes Group (1986) described the professional development school (PDS) as more than a laboratory school, a model school, or a setting for clinical supervision of novice teachers. Regardless of the designation, professional development schools are intended as sites at which high quality teacher induction is provided along with continued focus on professional development and improved practice.

The professional develop-

ment school described in this project met the majority of descriptive characteristics found in the literature including: involvement of the entire school in the education of in-service teachers; a representation of pupils from various economic, geographic and ethnic backgrounds; collaboration between college and school personnel; and a commitment to reflective practice.

The Project

Project PEACE: Parent Education and Child Empowerment was initiated during the 1993-94 school year to provide effective parenting classes for parents who had children enrolled in Kennesaw Elementary

School. The parenting class was taught by Bret Smith, a licensed therapist for the Relationship Enrichment Center. Mr. Smith donated his time to teach parents how to utilize the STEP (Systematic Training for Effective Parenting) program. While the parents were in class, their children, ages 2,3, and 4, were receiving educational experiences taught by Kennesaw State College preservice teachers enrolled in a graduate non-degree course ECE 561, Methods for Grades P-5 as part of their initial certification program.

As instructor of the course, I supervised the preservice teachers as they planned and implemented the educational activi-

(See McHANEY, page 2)

Teaching Conference set for KSC April 28-29

Kennesaw will host the second annual Georgia Conference on College and University Teaching in April. The conference was inaugurated last year by a statewide committee of faculty developers from University System schools under the leadership of Don Forrester.

Approximately 150 faculty and administrative colleagues from around the state will share information about teaching strat-

egies, diversity and new technologies. Four themes provide focus for this year's conference: "Getting to Know Ourselves and Our Students," "Strategies for Engagement," "Technological Applications for Engagement," and "Technologies in the Classroom."

Conference presenters come from 16 colleges and universities throughout Georgia and represent a wide range of disciplines.

The presentations will be "hands-on" sessions about how to incorporate innovative, practical and productive teaching methods into the classroom. There will be ample time set aside to share ideas and techniques among presenters and participants.

Space is limited, so registration is on a first-come, first-served basis. Details about registration can be obtained through the CETL office.

(What I Did With My Summer Stipend)

Learning Differential Equations Through Computer Experiments

Sean F. Ellermeyer, Assistant Professor of Mathematics

This past summer, supported by a faculty summer stipend, I designed a computer laboratory-based course in differential equations. My goal was to allow students to conduct computer investigations which would reinforce the main concepts of the subject and lead to the discovery of connections and new concepts.

My main work was the development of appropriate computer experiments and the writing of supplemental material (handouts) which would help students to synthesize the theoretical results of the subject with phenomena observed on the computer. I taught my newly-designed course for the first time in the Fall 1994 quarter.

The focus of the course was the construction and manipulation of mathematical models. A mathematical model is a set of equations that describe the interdependence of the various components of a given system.

When the modelling of a system involves describing the rates of change of its various components, the equations which make up the model are differential equations. Because of their importance in modelling, differential equations have been and continue to be a very active area of mathematical research—an area in which the use of computers has come to play a vital role.

Before computers, it was not practical (and in many cases not possible) to compute these numerical solutions. Today, the easy availability of computers has eliminated the necessity to restrict the study of differential equations only to theoretical analysis.

The course I designed to take advantage of this computerization met one day in the class-

room and one day in the computer lab each week. Classroom days were used mainly for lecturing on theoretical material and for helping students to work carefully through the mathematical details of theorems and homework problems.

On lab days students investigated concepts currently under consideration. Each student worked at his/her own computer on a specific experiment that everybody was to try. Students volunteered to share their observations and to explain why these observations were expected based on theory. This often led

to lively discussions and arguments which called for further experiments to be conducted.

In addition to three traditional written exams, three projects were assigned throughout the quarter. The projects each involved an applied problem which called for the use of computation and mathematical theory. For example, the first project involved the construction of a model based on Newton's Law of Cooling which described the fluctuations in water temperature of an outdoor swimming pool in response to the air tem-

(See ELLERMEYER, page 4)

(McHANEY continued from page 1)

ties with the preschool children. Mrs. Kathy Dudek, Counselor at Kennesaw Elementary School, obtained two grants totaling \$500 from the Cobb County Schools Action Research and the Cobb Commission on Youth. Materials such as a play kitchen, farm animals and puzzles were purchased to enhance the learning experiences for the preschool children.

The collaborative program was held every Monday morning for two hours over an eight week period of time at Kennesaw Elementary School.

Parents were asked to fill out a survey before and after attending the STEP program. Evaluation results indicated that the parents did not see any areas of the program that "needed help." Written comments were very positive as well. The parents stated that they had learned new skills to improve management techniques and felt they could guide their children to be more responsible and that they could handle conflict resolution at

home more effectively.

The preservice teachers (KSC students) evaluated their participation as being a very positive experience. They experienced exposure to classroom teaching earlier than most teacher education programs provide; learned about preschool development; gained a better understanding of the needs of exceptional, at risk, and culturally diverse students; and were able to process their experiences with other practicum students in their class.

Conclusions

The perspective of each individual involved in this project can unfold into discrete and unique versions of the same story. These differences are not only unavoidable but valuable, as they add rich layers to our understanding of what a true collaborative relationship among colleges, public schools and community agencies can be as we continue to explore ways we can work together.

The Art of Book Writing

Melvyn L. Fein, Assistant Professor of Sociology

Now that I have written three books, and had the latest one *I.A.M.*A Common Sense Guide to Coping with Anger*, selected by the Behavioral Science Book Service book club, some people are beginning to regard me as a writer. On my better days, I even think of myself as being one. Consequently, when I am asked how to write a book, I am no longer startled, and can manage a decent response.

The first thing I tell people is that writing is not easy. It takes persistence and effort, not merely intelligence or inspiration. The first time I tried to write something book length was as a college sophomore, and it was precisely that: sophomoric. Dozens of later attempts were equally unsuccessful, usually ending in several badly written pages that were quickly discarded in the circular file.

Only when I discovered that what I put on paper was never going to be as good as what was in my imagination that I decided to get on with the writing. Instead of giving up in disgust, I continued my scribbles. I eventually turned out a product that looked like a manuscript.

In the writing game, it seems that there are some well-established truths. The first is that to write, one must write. As painful as it may be to put words to

paper, one must do so on a regular basis. There is simply no other way to acquire the requisite skills.

Second, editing always takes more time than writing. Mistakes need to be fixed, not brooded over. Virtually any thought can be expressed in many different ways, so improvements are always possible. Falling in love with the first words that come along is wasted energy.

As to the process of writing itself, for me there are several stages. In some ways writing is like sculpting. You start with a ligature onto which you throw some clay. You do some preliminary shaping of your materials, after which you refine the shape. Along the way there are inevitable problems and missteps and these must be corrected by either minor or major surgery.

Eventually you get to the point where you smooth the surface. Where originally you were concerned with the over-all concept, toward the end it is the trivial detail with which you are consumed.

Given the fact that I am a sociologist who writes about the theory and practice of sociology, I am most concerned with my message. I ask myself what facts or hypotheses I want to convey and then spend years making sure I have these right. I do whatever research or reading is necessary,

but do not contemplate writing until I'm fairly sure where I want to go. It seems silly to attempt a book when I have nothing worth saying.

This first stage is helter-skelter. My ideas constantly collide with one another, and with those of the people with whom I communicate. This is very much a learning period, so I want to be open and flexible. This is also a period of note taking. I have a pad by my bedside and often wake up in the middle of the night with an inspiration. I am also a walker and this turns out to be an ideal activity for thinking things through.

The second stage involves organizing my ideas. Books are complex undertakings, which, if not carefully organized, quickly become rambling, bloated affairs that no one in his or her right mind would read. To be persuasive, thoughts must be clear. They must be logically connected, not too redundant, and precisely stated. This, however, entails giving structure to enormous quantities of data. This is where many prospective book writers give up.

Once again, for me the organizing process takes a lot of time and can be quite stressful. It is full of uncertainties that do not always have an immediately-

(See FEIN, page 4)

Workshop Series Announced for Faculty and New and "Not so New"

CETL will host a series of workshops for Freshman Faculty (those with three years or less at KSC) and Senior Faculty members. The series focus on the specific needs of faculty at various stages in their academic careers.

Sessions will cover portfolio development, campus committees, technology in the classroom and managing large classes. For complete details about topics and times, contact CETL.



(*FEIN continued from page 3*)

apparent resolution. Indeed, sometimes I get stuck for months or years. At such moments I am usually not sure if I will ever succeed. Often, this is a time for shuffling scraps of paper, constantly shifting notes from one pile to another.

Finally, there comes the writing itself and here I must find the correct voice. Who is my audience and how do I want to speak to them? Should I be technical and academic or folksy and personal? Since there is no perfect answer, and even if there were, I might not be able to achieve it, this too is a time for trial and error. In the end, I just jump in and find out what happens.

Because I am a morning person, most of my writing is done at home before I begin my teaching day. I sit in front of my computer and try to be myself. I have learned that if I don't like what I'm doing, most likely no one else will either. I also need quiet, but nowadays, for some reason, I usually have the radio tuned to country music. Not that I listen, but it seems to sooth me. Some days, of course,

are better than others, but the idea is to persist until something useful emerges.

Up to this point, most of what I do is done alone—(oh, by the way, did I mention how lonely writing can be, because it can)—it is only now that I try to find out if what I've been working on has any value. It is here that I pester friends and colleagues for their reactions, risking the destruction of my personal relationships. While I always tell myself not to take criticism personally, that I should allow myself to learn from it, in truth, it invariably hurts. The only solution I know is to give myself time for the sting to go away, and then to go back and make the necessary changes.

It is here, also, that being a teacher helps. It is only now that I am prepared to share my ideas with students and to receive their feedback. Usually their reactions surprise me, but they are an ideal vehicle for refining the organization of my writings and its mode of expression. I firmly believe that if my students don't understand what I am saying, or if they think it foolish, readers

will have a similar response, so I take their comments very seriously. This, of course, entails another round of soul-searching and word-smithing, but it is worthwhile.

Yet, even this is not the end, for books require publishers, and publishers do not always recognize the merits of what we writers produce. Sad to relate, I have my share of unpublished manuscripts. But if I am lucky, and a good publishing house gives me a contract, there is more editing to do, this time with a professional editor. In many cases it can be another year before everyone agrees to the final shape of the book.

I get fatigued just thinking about the process, but I love having books in print. The possibility of influencing how people regard important issues is exhilarating. It is also hard, frightening and lonely work. But book writing can be as rewarding as teaching. Indeed, it is part and parcel of the same thing, hence for those of us who love learning and love sharing what we learn, it can be a blast.

(*ELLERMEYER continued from page 2*)

perature. Working in groups of three or four, students were given two weeks to complete each project and each student was required to submit a carefully written report of the results. In several instances, I was surprised to find that a group had conducted their experiment beyond what was assigned and had arrived at more detailed results than what I had expected.

In discussing this approach with colleagues at other institutions, I learned about the *Consortium for Ordinary Differential Equations Experiments (CODEE)*, a group of faculty at

colleges and universities who design and use computer experiments in teaching differential equations. I have contributed an article based on an experiment which I designed to a newsletter which they publish quarterly. Also, I plan to attend a regional workshop which they will sponsor this summer through support from the National Science Foundation.

Overall, I believe that my summer project has resulted in providing the necessary foundation for a revitalized differential equations course which will continue to evolve and improve.

Help us with *Reaching Through Teaching*

As you can tell from the articles in this quarter's issue, we have many faculty members teaching and learning about teaching through in-class experience.

We would like to invite you to participate in this important exchange of ideas by submitting to the Spring issue.

Articles may cover your research or teaching practices, or explore your philosophy of teaching. Submissions should be sent to Richard Welch by May 1.

Faculty Resource Network offers Consultants and Guest Lecturers

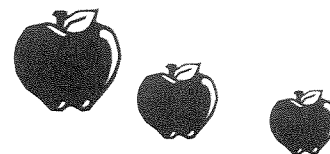
The Faculty Resource Network, a cooperative of faculty members at Kennesaw, has been established to provide colleagues with guest lecturers and peer advisors to assist in classroom development. The purpose of the FRN is to allow teachers with particular curricular puzzles to talk with peers who have found solutions. Many FRN members also have volunteered as peer reviewers who are willing to sit in on classes and provide feedback. The FRN also functions as an in-house “speaker’s bureau” through which faculty can invite colleagues with specialized areas of expertise to participate in classroom discussions.

Speakers have volunteered in the following areas:

- Africa-social, economic, marketing and cultural contexts
- Anger and Moral Issues
- Art History—American and European
- Classroom Management
- Colonial America
- Comics and Movies
- Creation and Evolution
- Disease and Historical Development
- Disease Prevention
- Domestic Violence
- Drugs—effects of brain and behavior
- Educational History
- Emotions
- English Romanticism
- Exercise Basics
- Gothic Literature
- Health and Wellness
- Hero Making
- HIV/AIDS Issues
- International Interdependence—how it impacts business
- Jazz in the 20th Century
- Language and Literacy Development
- Latin American Art
- Leadership
- Learning Assessment
- Legislative Process
- Mass Media and Politics
- Mass Media and Society
- Mathematical Modelling
- Multi-culturalism: Experiencing a Passover seder
- Nutrition Basics
- Nuclear Weapons
- Research Methods
- Role Change
- Total Quality Management
- Slavery
- Survivors of the Holocaust
- Vietnam in Literature and Film
- Vietnam—Personal Stories
- Whole Language
- Women in Computing
- Women’s Art
- Women’s Health Issues

Instructional Consultants available in the following areas:

- Case-based Instruction
- Computerized Instruction
- Critical Thinking Skills Instruction
- Custom Publishing
- Curriculum Development and Implementation
- Desktop Publishing
- Evaluation Planning for Research and Grants
- Group Project Management
- Interdisciplinary Course Development
- Large Classroom Instruction
- Multi-media Presentations
- Service Learning
- Syllabus Design
- Student Assessment
- Student Management
- Tandem Courses
- Total Quality Management in the Classroom



To contact members of the FRN, contact the CETL office.

The Physics of Music

Russell Akridge, Ph.D.

Physics and music have much in common. This common ground formed the basis for the Physics of Music course PHYS 490 that I taught during the Spring quarter 1994. It was an interdisciplinary course in the truest sense of the word. The students' musical experience ranged from none at all to one student who owned his own recording studio. Most of the students had little or no physics background. The only prerequisites were the science and performing arts areas of the core.

We began with a study of sound. We found that the individual notes played by musicians are actually definite frequencies and wave-

lengths of air vibrations. We learned that the various overtones and octaves in music are actually fixed multiples of standard fundamental frequencies of standard notes. The first two notes of the theme song from *The Wizard of Oz*, "Somewhere Over the Rainbow," are one octave apart. The musician hears this octave difference, while the physicist measures the frequency of the second note as exactly twice the frequency of the first note.

We experimented with simplified versions of a guitar, a

clarinet and a bell. The class discovered that each of these instruments emits its own characteristic series of overtones, in addition to the actual note struck. The guitar sounds not only the note played, but notes of twice that frequency, three times that frequency, four times that frequency, and so on. It does this because the laws of physics dictate that instruments whose vibrating material is clamped firmly at both ends are able to emit all integer multiples of any note struck. The situation is different

We discovered music. We measured music. We invented our own musical instruments. We computer-assembled perfect musical performances sounded by many instruments without those instruments ever being present. We learned much by discovering and by doing, and we had a lot of fun along the way.



for a clarinet, because one end is open, not fixed. Its vibrating air column can emit only the basic note played, three times that note, five times that note, and so on. It is a different series of notes in addition to the basic note, so a clarinet sounds different than a guitar. The laws of physics dictate that bells emit an irregular series of frequencies in addition to the frequency of the actual note struck. This principle gives bells their "gong" sound.

Next we explored the aesthetics of musical sounds. Which notes sound pleasing together,

and which do not? Which combined sounds evoke what kinds of emotional responses? We experimented with a guitar constructed for ease in making measurements to discover a principle of the physics of music noticed by Pythagoras. Guitar strings of identical construction and under identical tension produce notes that sound good, or rational, together, if their lengths are exact integer fractions of the whole length. By clamping various lengths of strings and noticing the sounds that just seemed to go

together, we discovered the octave and many of the other musical intervals such as the third and the fifth.

Each student had to invent his or her own musical instrument—an in-

strument that had never before sounded. The inventions were based on the knowledge of the characteristic types of sounds resonated by various families of musical instruments, and on the knowledge of what musical intervals sounded good together, all of which we learned earlier. The students invented their instruments by shaping the amplitude envelopes and frequency envelopes of original pure monotonies. All of these instruments were electronically programmed into the memory of a keyboard. None of them were physically

made. We devoted one day for student presentations. A few students emulated existing instruments, and they did a good job. Most students invented instruments that were... well, ... "Far Out," to say the least. We had horror movie instruments, jet plane sounds, heavy metal instruments, jungle rhythm instruments, and other instruments I could not describe in words. At the conclusion of this portion of the course, students knew so well why instruments sound as they do that they could create any instrument to make any desired sound or evoke practically any desired emotion.

We composed MIDI music during the final weeks of the course. MIDI stands for Musical Instrument Digital Interface. My students learned how to program electronic music into a Macintosh computer. The process is similar to word processing. Instead of entering letters into the electronic memory of a computer, we use a program that enters musical notes. Just as in word processing, when we were

displeased with the notes or the rhythms, we edited them to be exactly what we wanted. The final version for any instrument in the program's memory was a "perfect" solo, just as the final version of a word processing document is a "perfect" version of the document. Each student had to program at least five different instruments, all playing together forming a band. At least one of those computer instruments had to be a rhythm instrument such as a drum. Thanks to computer editing, the entire performance could be perfect. It was the logical next step, now that the students knew the basics of individual instruments. For the last days of the class, the students brought their 3 1/2 inch computer discs to class and played their compositions through the Macintosh in the classroom for the other students. I thought most of these electronic performances were astonishing. A sample of the electronic performances included, (1) a stirring rendition of a Civil War song with cannon firing and

with taps played by a lone trumpet at the end, (2) a song entirely of rhythm instruments, (3) a band performance of the mathematical notions of chaos and fractals, and (4) the theme to a popular TV show performed at least as well as the TV version.

I want to acknowledge my colleagues whose assistance allowed this experience to happen. Dr. Dorothy Zinsmeister, my department Chair, had faith in me to give me the chance to teach this course. Dr. Don Davis loaned us the keyboard that all of the students used to program their invented instruments. Dr. Gary Lewis obtained the MIDI music hardware and software necessary to create MIDI music, and the music discovery equipment. Dr. Wayne Gibson allowed us to use his Department of Music and Performing Arts computer music room to assemble our final performances. Mr. Stephen Byess provided musical and MIDI expertise, and I spent many enjoyable hours discussing this course with him.



Simulations as a Strategic Training Tool for the 90s

Lucia Ribiero, Foreign Languages

Excerpted from presentation to Kennesaw Academic Forum. Complete paper and citations, which have not been included, are available from author.

In a world that is rapidly changing, training in the work place has become crucial for the work force to adjust to technological changes and economic pressures. The use of simulations is an effective component in educating today's diverse work force.

A simulation is a representation of a real life situation in

which elements are depicted by symbols, numbers or a physical form. It is a training device that artificially duplicates the conditions that would be encountered in an actual situation.

One of the reasons simulations are so important is that some concepts are difficult to learn from words or pictures. And in some situations it can be costly

and dangerous to have inexperienced workers practice with the real systems, such as learning to fly or drive.

Simulations also can be excellent in responding to an array of different learning styles if certain guidelines are followed. For example, when preparing a simulation developers must be sure to determine if there are participants who have physical limitations that could inhibit the learning process if not addressed. The

trainer also needs to account for cultural and even subcultural differences and to avoid language barriers. Taking these factors into account will prevent offensive comments or gestures in the training setting.

In short, it is of utmost importance to know your audience before preparing the simulation and to make the proper adjustments. Also, when devising the simulation, take into account different learning styles. Some participants are visual, while others are aural or haptic. Furthermore, keep in mind the differences in educational, socio-economic backgrounds and geographic experiences.

Simulations can also be categorized as behavioral or technical. The purpose of behavioral simulations is to create an environment that duplicates a real life situation without portraying reality. This type of simulation emphasizes interpersonal behavior and the decision-making process. A supervisor dealing with a problem on the job with an employee is an example. The importance of this type of simulation is that it

can be used to train for soft skills such as performance appraisal, interviewing, on-the-job performance and other managerial skills.

Technical or computer simulation is a model that recreates reality in a controlled environment; its purpose is to create a safe and less costly training environment, such as a pilot learning to fly in a simulator.

We live in a world that requires effective communication, and yet workers have poor communication skills. When and if other types of communication fail, simulations will ensure the continuity of the learning process. During the course of a simulation participants forget they are living in a simulation. Soon they revert to their customary behavior. The simulation, therefore, will help participants discover, through experience, the behavior patterns that exist in organizations and in their own lives and what causes these patterns.

It is vital to remember that a poorly designed simulation can be worse than no training at all. Simulation can solve training

problems, but only if simulation is the right solution. Thornton and Cleveland suggest that simulations be used judiciously within a broad sequence of other developmental efforts, partly because simulations have certain limitations as an assessment and training technique.

Charlene Marmer Solomon suggests that simulations are effective when participants understand themselves better and they function more fully as a team. Basically, participants have an experience that appeals to all their senses; as they go through the simulation, they have a chance to talk about it, to experience it, to see it, and to feel it. They have a chance to learn from their mistakes which will make it an unforgettable experience.

In conclusion, over the past decades simulations have been demonstrated to be effective. They will continue to play a vital role in educating and training the work force of the nineties and the future. Simulations are the key to success in this fast changing and diverse business environment.

Four Types of Simulation

One. Helps participants learn the psychomotor and perceptual aspects of a task as it is performed in real world situations. For instance, a flight simulation helps trainees practice visual and motor coordination as well as task sequences in response to cues from the simulator.

Two. Cognitive-task simulations help participants learn the concepts and abstractions that underlie the rules

and principles governing their work environments, for example a management situation that calls for thinking processes.

Three. For tasks involving communication and coordination simulations are developed where there is a situation where several trainees can perform at one time in different roles as part of a simulation of a work system. The actions of each participant are shown at the other trainees' stations. This application can be used in everything from plan-

ning marketing strategies to managing plants.

Four. Visual-reality simulation attempts to achieve total sensory simulation through the use of special headgear and electronic gloves. The trainee wears goggles fitted with small computer screens where he or she views the target environment in three-dimensional images.



Anthropology on the go:

Teaching multiculturalism at a commuter college

Betty A. Smith, Professor of Anthropology and Nancy Gonlin, Instructor of Anthropology

Adapted from a paper presented at the 93rd Annual Meeting of the American Anthropological Association, Atlanta, November, 1994. Additional data and course information available from authors.

There has been a national emphasis on diversity and multiculturalism in the United States that has pervaded the educational system. Colleges are responding to the need to inform their students about varied ideas, values, and attitudes. At Kennesaw State College, students are offered this opportunity through anthropology.

Because the ethnic composition of Kennesaw's student body largely mirrors the demographics of this area, many white students have not had the opportunity to interact with other racial and ethnic groups and many students have not been exposed to different viewpoints about the world. This lack of interaction and experience has been a concern of the college and this is where the discipline of anthropology attempts to make a difference.

Anthropology 105, Contemporary Issues in Cultural Anthropology, was developed by Betty Smith as the core course in which contemporary issues in anthropology are explored. The goals of the course are to foster:

1. an understanding of the discipline of anthropology with an emphasis on cultural anthropology and anthropological research methods;
2. an understanding of contemporary social issues from an anthropological perspective;
3. a global perspective and an appreciation of cultural diversity;
4. an understanding of the connections among academic disciplines, especially, but not limited to, the other social sciences.

The subjects introduced in Anthropology 105 cover a broad

range of topics. In all matters, a connection between the topic and the student's life is essential for the student to appreciate the relevance and applicability of anthropological work. Class lectures, films, and discussions complement the articles in the text developed by Smith and Van Horne for the course.

An introduction to the field of anthropology is necessary since, for many of the students, this course is their first exposure to the discipline. Discussion of what sets anthropology apart from other social sciences and how it is related to them is an important early component of the course.

One of the most important topics in Anthropology 105 is race and ethnicity. The biological and social definitions of race are discussed and their realities in day-to-day life are illustrated. Students are taught to view biological characteristics as the outcome of evolutionary processes working on the human species.

Marriage is seen as a cross-cultural regularity, with the highlight of American marriage as an expression of individuality and the concomitant problems this perspective brings. Gender and child socialization are discussed in a cross-cultural perspective in the section of the course entitled "Raising Children."

Population problems are put in a global context when the course turns to the topic of "Health, Poverty, and Population." For example, students learn about the power of religion on population control in countries such as Brazil.

The consequences of environmental degradation, such as the sustainability of the land and the road to poverty, are brought out with concrete examples from many parts of the world, including the United States.

Studying Results

These topics give a broad sampling of the issues raised in the course "Contemporary Issues in Cultural Anthropology." In order to test the effectiveness of the course in meeting its goals, two surveys designed by psychology professor Michael Reiner were conducted during the Fall Quarter of 1993 to measure student attitudes. A total of 180 students in five sections of Anthropology 105 participated in the study.

The first survey, or pretest, was distributed during the initial class meeting, before discussion of the course ensued and before the students received a syllabus outlining the course content. The second survey, or post-test, was administered after the final exam. Both multiple choice and open-ended questions were asked. Reported here are the results of the multiple choice section.

General questions were asked of the students about their knowledge of the subject of anthropology, their familiarity with cultural issues, racial issues, and gender issues, and their knowledge of international perspectives. The pretest results indicate that nearly two-thirds of the students reported that they were not at all or only a little familiar with the subject of anthropology. Post-test data show a striking contrast to pretest data. Nearly two-thirds of respondents indicated that, after taking the

course, they were either very familiar or familiar with the subject of anthropology. Written unquantified evaluations indicated that the students enjoyed the course in addition to learning something.

About half the students identified themselves as being somewhat knowledgeable about cultural issues before they were exposed to the course; however, after the course had been completed, over three-quarters of the students reported that they were extremely or very knowledgeable about such matters. Likewise, similar results were obtained for the pre- and post-test question on racial issues. One in five students admitted to being a little or not at all familiar with racial issues in the pretest; however, this dropped to a negligible 1 % for the post-test.

The outcome of the survey on gender issues shows that almost 1 in 3 students professed to be extremely or very knowledgeable about this topic before class-

room instruction, with more than a doubling of students with such degrees of knowledge after.

An international perspective was familiar to over half of the students as reported in the pretest, with this figure jumping to nearly the entire sample of students, who reported to be either extremely, very, or somewhat familiar with such a perspective.

Conclusions

Overall, the pretest survey reveals that most students come into the classroom with a somewhat limited knowledge of anthropology and the contemporary issues which cultural anthropologists face. These issues are portrayed as crucial to students' lives. In generalizing the post-test survey, we can state with confidence that anthropology has had an impact on the students at KSC and has heightened their awareness of cultural issues, racial issues, gender issues, and international perspec-

tives. What is left for the students is to carry these thoughts with them as they leave the classroom and apply their newly-found knowledge in all aspects of their lives.

Acknowledgments

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The Internet and the Professor: A Mini-Guide

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WHAT SHOULD YOU KNOW ABOUT THE INTERNET?

At Kennesaw State College, most faculty have the Internet accessible from their desktop computer. We've been focusing on exploring ways of using e-mail and gopher capabilities in the Writing Center, so we've done more than the average amount of exploring. We thought we'd share some of what we've learned.

But first, let us review some Internet Basics.

INTERNET BASICS

1. Is e-mail the same as the Internet? If you have an e-mail address, then you're on the Internet. KSC is part of Peachnet, a linked set of Georgia Internet sites. Your e-mail address identifies your school location.

2. How do I join a listserv? Listserv groups—

often called mailing lists or "lists"—are ways that groups interested in the same topic can carry on a discussion through e-mail. If you subscribe to a "list," you can easily send messages to the entire group and reply by writing to the list address rather than writing to each person individually. To subscribe to a list:

1. Send an e-mail message to the listserv address: listserv@[address]; e.g. listserv@uga.cc.uga.edu
2. In the first line of the message, type the following: subscribe [name of list] [your name] e.g. subscribe K-16link Dawn Rodrigues

There are hundreds of lists in the academic disciplines. The best way to learn quickly about listservs in your discipline is to look at Resources by Subject on the KSC Gopher, find maillists, discussion groups, or e-lists, and read the short purpose statement and subscription information of interesting sounding lists. To access one of the best resources on the Internet, follow this procedure:

1. From the KSC Gopher Root Menu (first screen), key down to "General Information Services."

2. Click on this item, and go to "Resources by Subject."

3. From there, go to "List of Subject Trees."

4. Finally, go to "Information by Subject Area (RiceInfo.Rice.Univ)." Click on this item, and then go to your discipline. Enter. Here you will find screen after screen of resources, with listservs discussed under maillists, e-lists, or discussion group headings.

3. How can I start a listserv discussion group? To start your own list, here's what you do: Send a message to Michael Miller (mmiller@uga.cc.uga.edu).

Ask him to set up a listserv for your group or class. Here's the information he'll need: List Owner (e-mail id and name, i.e. your name): List Name (max 8 characters): List Description (max 44 characters): Is list to be PUBLIC (anyone can subscribe or post): or PRIVATE (only owner can subscribe people; only subscribers can post.)

4. What's a gopher? How do we use gopher at KSC? Computer scientists at the University of Minnesota created "gopher," menu-based software that allow users at one site to create hierarchical sets of campus information (called Campus-Wide Information Systems—CWIS); gopher also allows an institution to have menu selections that link to information at other sites. By following links, you can explore information that has been collected by scholars or students at different sites around the country and around the world.

At Kennesaw State College, the Campus-Wide-Information-System has been named "Owlscoop." To access Owlscoop, click on Gopher, then click on Campus Wide Information System—KSC's Owlscoop.

As faculty and students discover the ease with which they can create gopher areas, they have begun to post academic information and course materials on their gophers. The University of Michigan has even created a simple bulletin board for faculty and students that works directly from the gopher: **facultywrites** includes messages posted by faculty; **studentwrites** includes messages posted by students.

5. What's the World Wide Web? Can we access it from KSC? The World-Wide Web (WWW) is a linked set of Internet documents, many with hypertext inner links—places within documents that lead to separate documents. You view the documents using a "browser," software that controls how the documents look on your screen. Graphical browsers such as Mosaic and Netscape allow you full access to audio, video, and text. At KSC, however, we do not yet have a graphical browser. We do have access to **lynx**, a text browser, through PigsEye, the computer used for student accounts. Faculty can get accounts on PigsEye in addition to

their regular account on the SUN computer.

Some examples of WWW sites are these: <http://owl/trc.purdue.edu/> (Purdue's Online Writing Lab) <http://www.bmg.t.umd.edu/Business/AcademicDepts/IS/Learning/learn.html> (Descriptions of Electronic Learning Environments) <http://www.lib.virginia.edu/etext/ETC.html> (British fiction, such as files of Rossetti's poetry and paintings and Keats' poetry.) <http://http2.sils.umich.edu/> (The University of Michigan's School of Information and Library Science home page, which includes lists of lists, including ones in humanities, K-12 education, natural science, and social sciences. The entries have addresses and synopses of various listservs in specific areas.)

When you log into your PigsEye account, you will see the unix prompt **%**. To access lynx, type **lynx**. Then type in the **URL** (the universal resource locator): e.g. [//www.missouri.edu/~cccc95](http://www.missouri.edu/~cccc95)

Minuet, the e-mail package that many faculty now have on their office computers, will soon release a graphical browser for the World-Wide-Web.

6. How Can I Jump to a Specific Gopher or Web Site? The graphics-based gopher menu that appears on most faculty computers does not allow you to go directly to a specific gopher site. You have to click your way to the site by moving through random menus or by going to all the gopher servers in the world, to gopher servers in the United States, etc. When you find the gopher site you are looking for, you can place a "Bookmark" there.

Bookmarks are ways of storing gopher addresses that you want to return to later. To set a bookmark, first find the site you are looking for. Then click on **Keep Bookmark** and type in a name for the gopher site you want to remember. To go immediately to a site you have "bookmarked," click on **Bookmark**.

If you locate a file with information that you want to save, click on the file menu; select "save as"; then type in the location where you would like to save the file (e.g., If you have a directory named "save," then you might want to name the file something like "bib" on your hard drive. To do that, you would type: `c:/save/bib`).

The information that you save can be used in many ways for instructional purposes. Here are a few examples:

- You can create exercises on disk based on the text of the information you have retrieved.
- You can ask students to analyze a passage from recent legislation if the text of the bill is available on a gopher server.

If you want to jump directly to a specific gopher, you can telnet to your Sun account (or access it by dialing in from home via modem). With Minuet, you access telnet by clicking on Window, then selecting **telnet**. (Telnet is a program that lets you connect with computers at other sites.)

When prompted, add the name of the computer

you want to log into. (In this case, enter **KSCSunA1**). First, log in. Then, at the menu, select **gopher**. You will see the text-based KSC gopher screen. To go directly to the site of your choice, you type "o". When prompted, type in the address of the computer you want to reach.

For example, you would type in the following to telnet to the Carl library system in Colorado:telnet database.Carl.org

If you find information that you want, you can Mail it to yourself and then print it later. To mail yourself information from a gopher menu, type:

<m>. When prompted, type your address or the address of a colleague (at KSC or anywhere on the Internet).

HOW CAN THE INTERNET HELP YOUR TEACHING?

If your students get e-mail accounts, you can begin to adapt your teaching to the information age. One caution—students do not have access to the same e-mail program that faculty have. If you plan to use e-mail in your classes, be sure to get an e-mail account on the same computer that your students use (PigsEye). Then you'll see exactly what they see on the screen and you'll be able to plan ways of integrating e-mail into your course. Here are some possibilities:

- Ask students to post responses to discussion topics to the entire class. (They will need to each create an "alias" — a group name such as CLASS that you use when you want to send to everyone you've listed as belonging to a specific group.)

- Have students subscribe to a few listserv discussion groups in your field and take part in the national conversation of topics related to your course. In our English 309 class, students are signed up to NCTE-Talk, English Teachers, and K-16link. As students work on their research papers, they send questions to

one or more of these lists, asking teachers and students at other locations to help them.

- Collaborate with professors at other colleges or universities or with K-12 teachers. You can have "foreign exchange students" in your class without any expense involved. Divide your classes into groups, with students in your physical class paired with students at your colleagues' locations.

- Teach your students how to use the Internet as an extension of the KSC library. Help them learn how to use search tools such as Veronica and Archie. When students are actively involved in searching for information, they write more clearly as they present the results of that search.

Veronica offers a keyword search of most gopher server menus in the entire gopher web. Archie allows you to search FTP (file transfer) sites (and other

selected sites). Unlike Archie, the search results can connect you directly to the data source. You have your own menu after you do a Veronica search. The results are an automatically generated gopher menu, customized according to the user's keyword specifications.

Dawn Rodrigues and Bob Barrier will run two T'n T workshops on E-Mail and the Internet in Spring. You'll get notices in April.

1. Joining a Listserv. You'll subscribe to selected sites in Education and Arts, Humanities, Sciences, or Social Sciences.

2. Exploring Gopherspace and the Web. You'll learn how to access gopher sites lynx servers through Minuet or another e-mail program.

REACHING THROUGH TEACHING

Contributions from KSC faculty are solicited. Please submit articles to CETL on a 5.25" or 3.5" disk in WordPerfect. Preferred length of articles is 900 words. Deadline for the next issue is May 1.

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