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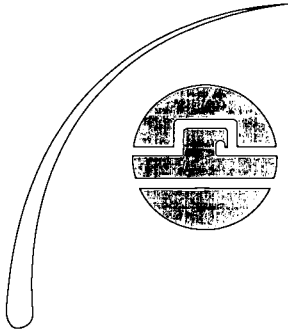
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ABSTRACT

Project LEAP (Learning English-for-Academic-Purposes) is a three-year faculty development and supplemental instruction partnership to improve the academic literacy skills of native-born, immigrant, and international language minority students. This manual is the third set of faculty development materials produced by the project, presenting activities and exercises for three general education courses in anthropology, biology, and health science. The materials were designed by participating study group leaders, language specialists, and course professors and are designed to provide study skills and linguistic support to the target populations in those courses. Each set of course materials begins with teacher's notes on use of the materials and exercises, including a course description, notes on content goals, specific teaching and instructional innovations, and description of outcomes. The set of materials continues with a course syllabus, including assignments, requirements, and specific directions for course-related papers, projects, and exercises. Classroom handouts are also included. (MSE)

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# LEAP

**LEARNING ENGLISH-FOR-ACADEMIC-PURPOSES  
AT CALIFORNIA STATE UNIVERSITY, LOS ANGELES**

## **Training Manual Year Three**

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**PROJECT LEAP: Learning English-for-Academic-Purposes**

**TRAINING MANUAL - YEAR THREE**

**Marguerite Ann Snow, Editor**

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**Fund for the Improvement of Postsecondary Education  
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## ABOUT THE CONTRIBUTORS

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**Heather Robertson** served as a language specialist for Project LEAP. She has been teaching English as a Second Language and English for Academic Purposes in CSLA's American Culture and Language Program for 14 years. In addition, she is the author of *Bridge to College Success*, a college preparation textbook for ESL students. She has given numerous presentations at local, state, and national conferences for ESL teachers, many on subjects related to preparing ESL students for college work. She has a Masters degree in Education from CSLA with an emphasis in cross-cultural communication.

**Dr. Behjat A. Sharif** is Assistant Professor of Health Sciences at CSLA. With an interest in multicultural and minority health issues, she has conducted research and published articles such as "Discussing The Needs of a Neglected Population: Adjustment Problems and Health Issues of International Students"; "Acculturation and Health Care Needs of International Students At CSLA"; "Economic Crisis and Public Health Education"; "Multicultural Challenges and Public Health"; "A Futuristic Perspective for Health Education: Marketing Health Behavior"; "Entrepreneur Health Educators"; and "How Drugs Can Affect Your Life". Her work has appeared in *The Journal of Health Education*, *Journal of American College Health*, and *Society of Public Health Education* (SOPHE) quarterly publications. Dr. Sharif is the past president of SOPHE, Southern California Chapter. She is bilingual (English and Farsi), and a Certified Health Education Specialist (CHES) and Certified Mediator.

**Dr. Marguerite Ann Snow** is Associate Professor of Education at CSLA where she teaches in the M.A. program in Teaching English to Speakers of Other Languages (TESOL) and co-directs Project LEAP. She is co-author of *Content-Based Second Language Instruction* (Heinle & Heinle, 1989), and co-editor of *The Multicultural Classroom: Readings for Content-Area Teachers* (Longman, 1992). She has published in the *TESOL Quarterly*, *The Modern Language Journal*, and *Applied Linguistics*. In 1985, she was awarded a Fulbright fellowship to teach in Hong Kong and, more recently, has trained English teachers in Brazil, the Czech Republic, Hungary, Japan, Latvia, Russia, Morocco, and Pakistan.

**Alan Stein** is Coordinator of Library and Bibliographic Instruction at the University Library as well as subject bibliographer for Business, Economics, and Law at CSLA. He coordinates 240 course-integrated instructional sessions for approximately 5500 students per year. These classes are designed to empower students in their academic achievement. Mr. Stein is Book Review Editor of *Business Forum* and has authored articles on various marketing topics and information resources. He is a frequent presenter on the issue of information literacy for linguistic minority students.

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**Dr. Janet Tricamo**, Co-Director of Project LEAP, is Director of the Learning Resource Center at CSLA. She previously directed three California State University-sponsored Innovative Program grants, and has taught both general education and graduate courses in the departments of Family Studies and Counselor Education.

**Marie Verhaar** received her B.A. in Sociology at CSLA and plans to pursue her Masters degree in Public Health at CSU, Long Beach. Marie has worked in the Study Group Program for two years, including positions as a study group leader, team leader, and interim coordinator of the Study Group Program.

## INTRODUCTION

One of twenty campuses of the California State University, California State University, Los Angeles (CSLA) is a comprehensive urban university serving a student body of approximately 21,000 students, many of whom are high risk, first generation university students from the ethnically diverse communities in the Los Angeles metropolitan area.

Project LEAP - Learning English for Academic Purposes - is a Fund for the Improvement of Postsecondary Education (FIPSE) supported project at CSLA which seeks to improve the academic language skills of language minority students, both native and foreign-born, by enhancing the curricula and teaching methods of selected general education courses and supplemental study groups. The primary target populations for Project LEAP are immigrant or native-speaking English bilingual participants of CSLA's Educational Opportunity Program (EOP), an academic support program for low income students, 33% of whom are admitted to the university on special admission status, having SAT scores and high school grades below the level which would otherwise qualify them for regular admission.

Project LEAP consists of four major components: 1) Study group courses, team-taught by peer study group leaders and language specialists, which are paired with selected general education courses; 2) Faculty development training to assist instructors to incorporate language sensitivity and academic literacy skill instruction into their general education courses; 3) Curriculum modification to institutionalize language-sensitive instruction into the targeted general education courses; and 4) Project continuity and dissemination to train future faculty and study group leaders and share project results both at CSLA and with other colleges and universities around the country.

This manual is the third set of training materials produced by Project LEAP. It builds on the efforts presented in the Project LEAP Training Manual - Year One in which language enhancement exercises and activities were developed for use in Biology, History, and Psychology - the 1991-92 Project Leap courses - and in the Project LEAP Training Manual - Year Two in which Political Science, Sociology, and Speech were the targeted courses. The activities and exercises presented in this manual were developed for the three 1993-94 courses: Anthropology 250 - Introduction to Cultural Anthropology, Biology 155 - Natural History of Animals, and Health Science 150 - Basic Health and Safety Studies. The materials were designed for use in these three general education courses by the participating study group leaders, language specialists, and course professors. Some of the materials were developed for use in the study groups, others were designed to be used in the lectures; in some cases, the materials can be used either in the study group or the lecture. All have as their goal assisting students to improve their academic literacy skills.



The manual is divided into three main parts: Part I presents materials developed for use in Anthropology 250, Part II contains the exercises designed for Biology 155, and Part III the Health Science 150 materials. We believe the language enhancement exercises and activities contained in the manual are appropriate for use with all underprepared undergraduate students, regardless of language background, who need assistance in mastering academic English. While the activities and exercises were designed specifically for the three targeted courses, they are also meant to have more broadly based application. That is, they serve as models of language enhancement activities and exercises which could be used in any general education course where improved academic literacy is the aim. We invite the users of the manual to employ the materials in the three CSLA courses for which they were first developed, to adapt and modify them for use in other CSLA courses, or to tailor them as needed for courses at other colleges and universities committed to improved instruction for language minority students. Our goal, by the end of our three year effort, was to provide a comprehensive treatment of the key academic language skills required in the general education curriculum.

The efforts of Project LEAP will continue to be supported by FIPSE from 1994-1997 with emphasis on faculty development and dissemination. For further information about on-going Project LEAP activities, please contact:

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## PART I

### ANTHROPOLOGY 250

#### INTRODUCTION TO CULTURAL ANTHROPOLOGY PROFESSOR GERI-ANN GALANTI

### Anthropology 250 - Winter Quarter 1994: An Overview

#### Course Description

Anthropology 250 is an introductory cultural anthropology course which fulfills the Social Sciences General Education Lower Division requirement. The primary goal of the course is to understand human behavior from a cultural perspective.

Anthropology 250 enrolled 38 students during Winter Quarter, 1994. Almost half were of Asian descent (including Chinese, Japanese, Filipino, and Korean students), 22 of Latino descent (mostly Mexican-American, with a few Central and South American students), and two African-Americans. The LEAP language specialist and myself were the only Anglo-Americans involved in the course.

#### Content Goals

Few of the students who take Anthropology 250 are anthropology majors; for many, this is the only anthropology class they will ever take. In keeping with the very real need for tolerance and understanding of cultural diversity in a city like Los Angeles, one of my major content goals was to impart an attitude of cultural relativism -- the notion that different cultures' ways of doing things are different, but equally valid, and must be understood within their cultural context. Therefore, I deviated somewhat from most introductory cultural anthropology courses in that, rather than focus on traditional, small scale societies, I emphasized some of the cultures which predominate in Los Angeles, including Mexican, Chinese, Japanese, African-American, and Anglo-American.

With this goal in mind, we began with the basic assumption that most, if not all cultural behavior, makes sense from an ecological perspective. This is, it is a logical adaptation to the conditions in which the people live. Cultural conflicts arise when conditions change or people move, because traditions change much more slowly. Throughout the course I emphasized the adaptive value of different customs.

We covered most of the traditional topics of any introductory cultural anthropology course, including basic anthropological principles, subsistence technology, kinship, marriage and family, economic systems, political systems, magic, ritual, and religion. With each topic, we tried to apply the principles and perspectives we had learned to understanding our own lives, as well as the cultural diversity in Los Angeles.

### **Teaching and Instructional Innovations**

The following changes and enhancements were made in Anthropology 250 as a result of my participation in Project LEAP:

#### **A. Written Assignments**

I taught the course during the Fall Quarter 1993 for the first time in several years. I used the same writing assignments for both Fall 1993 and Winter 1994. However, as a result of Project LEAP, I made several modifications in the assignments. Most had to do with breaking down the assignments into parts, and requiring that the students turn in the different parts throughout the term.

There were three writing assignments: the term paper, the short project, and the kinship assignment.

#### **The Term Paper**

##### **Goals:**

1. To help the students gain the kinds of skills they need to evaluate the way various media present different ethnic groups found in the United States. Often times, works of fiction which portray an ethnic group are perceived as racist. This assignment was designed to give them practice using the tools to draw their own informed conclusions;
2. To give students the opportunity to learn about another ethnic group by talking to several members of that group. I hoped they would find that there is tremendous variety within each ethnic group, and that they should not stereotype anyone because of their ethnicity. I also hoped that the personal contact would lead to greater intercultural understanding; and
3. To teach the skills of categorization and interviewing.

##### **The Assignment:**

Students were required to read one of the following novels: The Blessing Way (Navaho culture), Rising Sun (Japanese culture), The Joy Luck Club (Chinese culture), Waiting to Exhale (African American culture), or Like Water for Chocolate (Mexican

culture). They had to take notes on what they learned about the culture portrayed in the novel, and then interview at least 3 people of the appropriate ethnic group to find out how accurately these novels portray the cultures described. Finally, they had to write a 4-6 page (typed, double-spaced) paper discussing the above two issues. [Note: In the future, I will replace The Blessing Way with Not Without My Daughter (Iranian culture) because students had too much difficulty locating Navahos to interview.]

Rather than leaving students to do the paper on their own and having them turn it in at the end of the quarter as I had done in the past, I made the following changes in the assignment.

### **1. A Multi-Step Approach:**

I broke the assignments down into parts, and had students turn in the parts along the way. This helped students to organize their time, and allowed me to keep them on the right track. Many students come from present-oriented cultures, which puts them at a disadvantage in terms of time management in the future-oriented academic culture. [Even students who were raised in this culture have difficulty!]

The following is the sequence of assignments, including an additional modification I would use the next time I teach this course:

- a. Students turn in the name of the novel they will be reading. (Due week 2)
- b. Students turn in a list of informants they will use, along with the dates scheduled for the interviews. (Due week 3)
- c. Students turn in a brief description of the culture, based upon the information in the novel. (Due week 5)
- d. Students turn in a list of cultural elements, using quotations from the book and organized into cultural categories. (Due week 6)
- e. Students turn in their informants' responses to questions regarding the accuracy of the cultural elements presented in the novel. (Due week 8)
- f. Students turn in a rough draft of the paper. (optional) (Due week 9)
- g. Students turn in the final paper. (Due week 10)

### **2. Needs Assessment:**

I analyzed what skills are required in order to complete the assignment, and taught those skills: The assignment required interviewing skills and the ability to categorize, so I constructed class exercises, modeled interview techniques, and gave handouts on these skills.

### 3. Modeling:

I gave students examples of what was expected of them. For example, I gave them a sample page of cultural elements from a novel, a sample presentation of informants' interviews, and I conducted a mock interview for the class. I also made available sample copies of term papers with different grades from the previous term. I found that students did best on assignments when I gave them a **written model** of what I expected, and in the future, will do that for all major steps of the assignment. It is not necessary to provide a sample of the entire activity; a one-page portion is sufficient.

### 4. Clear Expectations.

I spelled out exactly what I expected of students, via both handouts and lecture. I also gave detailed instructions on assignments, taking them step-by-step through the process of doing the research and writing the paper.

### 5. Peer Teaching:

I encouraged students to work together on the project. Those who were reading the same novel were given class time to meet in small groups to discuss the cultural elements in their novel. Since the class contained members of several of the ethnic groups depicted in the novels, I also encouraged them to use each other as informants. In addition to helping them see that Anthropology is relevant to their everyday lives [we are what we study], it also contributed to students' self-esteem by having them function as "experts" on their own culture.

### Outcome:

The assignment was quite successful in achieving the second goal -- learning about another ethnic group. Below are some sample comments from anonymous student course evaluations in response to the question: **"What, if anything, did you get out of the term paper assignment?"**

*"I learned the culture of Blacks which would help me judge people in a different way. I learned that not everybody thinks like me."*

*"I felt that I was more in tune with the Mexican culture. And although I always knew that many cultures are alike, I actually really realized it through this assignment. I guess it was the experience that counted instead of having someone telling me instead."*

*"First of all, I now have three new friends from writing the interview. I also learned that I want to learn more about the Chinese culture."*

*"I learned how people from different cultures are different from each other. Cultures have their reasons and values to do things. Many of my own doubts were satisfied after doing this paper. I now know why Chinese people value things that for my culture are not as valuable as they are for them."*

The first goal -- to help the students gain the kinds of skills they need to evaluate the way various media present different ethnic groups found in the United States -- was achieved to a somewhat lesser degree. Many of the students were disturbed by the fact that their informants didn't always agree with what was said in the book. They began, I think, with the assumption that if something is written in a book, then it must be true. I needed to emphasize in class several times that they should expect to find variation among their informants, particularly among those who have been in the U.S. varying amounts of time. However, few of the students were critical of the authors or accused them of being biased.

My third goal was to teach the skills of categorization and interviewing. Categorization was particularly difficult for the students. Although their categorization skills improved as demonstrated by the final product -- the term paper -- it took a lot of correcting of earlier portions of the assignment to get them to that point. Even after the in-class exercise, only 8 students did a good job of categorizing in their cultural elements assignment. Heather Robertson, the LEAP language specialist, suggested that I include some elements that are not cultural elements in the in-class categorization exercise -- since many students confused plot and character points with cultural elements. I have incorporated her suggestion into the handout contained in this manual.

From the evidence of their term papers, most students did learn good interviewing skills -- mostly "on the job." In the evaluations, one student recommended having students practice interviewing each other in class, rather than just observing me doing a model interview. I think that is an excellent suggestion.

Overall, I was quite pleased with the quality of the term papers, which were far better than the ones I received the previous term. On the evaluations I asked the students if they would recommend doing the assignment again. Everyone said yes. Nearly everyone felt that breaking the assignment down into parts which they had to turn in during the quarter was very helpful. The general consensus was that it increased their workload a lot, but it made it much easier for them to write the paper at the end. As one student wrote:

*"You were right. At first it was such a hassle and I felt the pressure of having to turn something in every week, a little of the term paper each time. But, at the end when I have a few hours to put the paper together, I was grateful that you made us turn in little pieces at a time. Most of the paper was already written. I found the sample handouts very helpful, also."*

Another student added this note:

*"I know there are "smart" and "responsible" students who probably didn't like this way, but I think most of us as students (especially freshman) are not very responsible enough to do it on our own. It will be helpful for us. Thanks."*

I would definitely recommend using this assignment again. [See also my comment at the end of this report.]

### **The Kinship Project**

#### **Goals:**

1. To give students practice in drawing kinship diagrams; and
2. To help them see first hand how such diagrams reflect social relationships.

#### **The Assignment:**

The students were assigned to draw a kinship diagram of their own family. After completing the diagram, they were to write a short paper in which they answered several questions including whom they left out and why, whom they consider to be their closest relatives and how their relationship with them differs from that of their other relatives, and why they think they are closer to them than to their other relatives.

#### **Outcome:**

What most students found was that proximity has a lot to do with closeness, and that what characterized the closest relationships is that the people could count on each other for anything. The latter reflects the anthropological principle that marriage and kinship function to create alliances. Most of the students really enjoyed this assignment; they spent a great deal of time talking to relatives, often learning things about their family they had never known before. The following student comments were in response to the questions, **"What, if anything, did you get out of [the kinship assignment]?"** and **"Would you recommend doing it again?"**

*"I really loved it. I'd say it was my favorite one. I learned so many things about my family that I wasn't curious about before. I loved it!!"*

*"It was a very beneficial activity because I can learn about something this is a part of me. It not only taught me about my family, but it also validated their relationship with me that I did not recognize prior to the project."*

*"I would recommend doing this diagram in the future because it gives the students the opportunity to take a look at their family and keep the diagram as a family treasure."*

## The Short Project

### Goals:

1. To help students see how they can use anthropological principles and techniques to better understand peoples' experience from the emic perspective;
2. To help them practice interviewing skills which they could transfer to their term paper assignment;
3. To help them practice integrating material from a variety of sources, including the textbook, lectures, peoples' life experience; and
4. To give students an opportunity to talk with someone from another ethnic group.

### The Assignment:

Students were given a choice of a series of questions relating to the major topics covered in the course. They dealt with the experience of racial discrimination, culture shock, values, conflict resolution, mate selection, and sexual orientation (a topic we did not get to cover due to time limitations imposed by both the earthquake which struck during the third week of the quarter and the extra time taken by the addition of LEAP activities.)

### Outcome:

Most of the students reported that they got something positive out of the assignment, and many said they would recommend doing it again. However, several also pointed out that what they learned duplicated what they learned from the term paper assignment (several chose the topic of values -- which was a major element in the novels and thus the term papers) and distracted them from the term paper assignment.

Although I like the assignment, next time I would eliminate it due to the excessive workload for this course. What I would recommend is using some of the topics for the practice interviewing exercise that I would add to the class next time.

## B. Reading Assignments

Students were assigned a textbook by Whiteford & Friedl, The Human Portrait, a book of readings entitled Annual Editions. Anthropology 93/94, and the Fall 1993 special issue of Time Magazine on "The New Face of America".



I chose the text because it covered the basic anthropological materials in a fairly interesting way, and had a summary and glossary at the end of each chapter. The book of readings contained many articles that exemplified the principles discussed in class and in the text. I used the Time issue so the students could see that what we were studying in class was directly relevant to real life.

### **Evaluation:**

Although few students said they loved the textbook, most felt that, for a textbook, it was a good choice. I would continue to use it.

They were much more enthusiastic about the book of readings. Most said they enjoyed the articles, and found that they helped them to understand the concepts covered in class lecture. I would continue to use the readings..

Time Magazine received mixed reviews. Some liked it:

*"Even though we didn't discuss the Time magazine in class, I think it helps students be aware of what is going on out in the real world. The articles presented were very good and some of them reflected what we were discussing in class."*

The majority of the students, however, felt it could easily be dropped from the reading list.

### **C. Exams**

Rather than give the traditional mid-term and final, I gave four short (25 points) exams. All exams were multiple choice and true/false. I decided not to use essay questions, since the students already had a substantial amount of writing to do for the other course requirements. The exams each covered two major topics. The fourth exam, which was given during the final exam period, also covered important review material from the entire quarter.

The exams were based on both lectures and readings although they tended to emphasize the lectures. (I wanted to encourage students to show up for class!) Questions were designed to test their understanding of the concepts, rather than memorization of definitions or facts.

I gave them study guides prior to each exam which listed the concepts for which they would be held responsible. This was designed to help them focus their studying on the material I felt was important for them to learn. [This represents a philosophical difference I have with some faculty, who feel students should have to study everything for the exams. I feel it is more productive to let students know what is most important, and have them spend their time learning that.]

## Outcome:

I was pleased with the students' performance on the exams. The students also liked having four exams, rather than just a midterm and a final. Two representative responses to the question: "**Did you like having four exams, or would you have preferred only two or three?**" follow:

*"I think it was better to have four exams instead of only two or three because it helped me understand one category before mixing it up with another category. For the final exam I think I'm ready. Now I can mix all them up and not be confused" [Note: the evaluations were written prior to taking the final exam.]*

And, as another student pointed out,

*"If I don't get good grades in one exam, I still have three more exams and more chances to study and get better grades in the next exam."*

Most of the students felt that the study guides were extremely helpful to them.

## D. Class Lectures and Activities

My experience with Project LEAP led me to treat my course like a foreign culture to which the students have to be socialized -- rather than one to which they are native. In other words, instead of assuming that students were familiar with academia and what is needed to succeed at the university level, I tried to teach them the requisite skills, which they will hopefully transfer to their upper division classes.

As a result, I made several modifications in my teaching style:

1. I used **peer teaching**. I had students get in groups and work out material with each other.
2. I **reviewed important concepts** from the previous day at the beginning of each class.
3. I encouraged **student feedback** to make sure students were getting the point. For example, at the beginning of class, I'd have everyone write down the main point of the previous lecture and turn it in. Then I could see who was getting it and who wasn't. I occasionally gave them an extra credit point for getting it correct.
4. I gave occasional **surprise quizzes** (for extra credit points) on reading assignments to make sure they kept up with the readings.
5. I paid special **attention to language**: I explained terms and cultural references (e.g., "Little House on the Prairie" and "You can't see the forest for the trees")

when I used them. I frequently wrote new vocabulary words on the board for them.

6. I gave students a **handout on important terms** for each lecture. At the beginning of each lecture topic, I would instruct the students to get out their list of terms. I would frequently make reference to it during lectures. This had the added advantage of saving time -- I didn't have to repeat definitions. It was important, however, to instruct students **not** to take notes on the definition sheets, but rather to leave a space in their notes and to go back later and copy the definition onto their lecture notes. This also gave them added exposure to the important terms.
7. I gave students **cues regarding the structure** of my lectures. For example, I would tell them, "This is the main point. Write it down." Then I would say, "Now I'm going to give you examples which support it" or "This is a side note; you don't need to write it down." I began this practice in response to an observation by Heather Robertson, the language specialist. She noted that students had a difficult time separating the important points of the lectures from the details and examples since I would spend so much more class time going over the latter. I might only state the important point once or twice. I also occasionally wrote the major points on the board; in the future, I will try to do this more often.
8. I used an **experiential** approach whenever possible. For example, when we discussed personal space, I had them stand at varying distances to each other so they could feel the violation of their personal space. When we discussed shamanism and trance, I brought a drum and rattles to class, along with some sage to burn, and lead them on a shamanic journey. (Students were instructed to bring a blanket to class to lie on; all the lights were turned off.) Although few visualized their "power animal" (the aim of the visualization exercise), most experienced an altered state of consciousness.

Many of the students commented upon what a unique and memorable experience the shamanic journey was for them. Even those who "saw nothing," reported that this exercise, done the last day of class, helped them to relax and to relieve the stress of the end of the quarter.

9. I tried to get the students **physically** involved in learning concepts -- having them act things out, rather than passively listen to lectures. For example, when we discussed the Kula Ring trading partnerships of the Trobriand Islands, I had a group of students come up and trade objects. When we went over the difference between cross and parallel cousins in the lecture on kinship, I had students come to the front of the class to portray the different relatives we were talking about. Then I had another student come up and identify which of the relatives he or she could marry, depending upon whether the culture prescribed cross or parallel cousin marriages. (Students often find this humorous, which has the effect of making something usually seen as difficult, fun.) When Margie Diaz, the

study group leader, gave a "guest lecture" on political systems, she gave students scenarios to act out for the class in order to demonstrate the different types of conflict resolution. Several students mentioned in their evaluations that these scenarios helped them to remember the terms and concepts for the exam.

The point is, I tried to get the students out of their chairs and actively involved in the learning process. It greatly enhanced the "context" for non-native English speakers. It also helped everyone to understand and remember the material much more easily than if I were to simply lecture to them.

10. Something I've done in other classes, but did not have time for here, was to have **students make up exam questions** and then play a competitive game in preparation for the exam. Students must do a fair amount of studying in order to write the "exam" questions. They then get to review their knowledge of the material during the game. Although there was not time in this class for this activity, it has been quite successful in my other classes.

## Conclusions

### 1. Student Performance:

Based upon student performance and student evaluations, the revised course was extremely successful. Comparing the Fall '93 class with the Winter '94 (LEAP) class, grades were as follows:

<u>Fall '93</u>	<u>Winter '94 LEAP Section</u>
26% A	42% A
41% B	29% B
29% C	23% C
4% D	3% D
	3% F

As can be seen, there was an increase in the number of "A"s. The term papers were also markedly better during the LEAP term, with nearly 1/3 of the class receiving a grade in the "A" range.

In the LEAP study group, there were 8 "A"s, 3 "B"s, 2 "C"s and 1 "F" (the student did not show up for the final exam). The evaluations from the LEAP study group members were uniformly positive. It would be interesting to interview these students in a year or two, to see if their success in this course had a lasting impact upon them. Ideally, the lesson that they can excel if they put in the time and effort, should have a positive influence both on their self-esteem and their study habits.

## 2. Course Content Goal:

Student comments on anonymous evaluations were exceptionally positive. Every student said they would recommend the class to their friends (despite the heavy workload!) Since one of my concerns was that they learn greater tolerance of other cultures, I was pleased to find that most students made comments to that effect in answer to the questions: **"Did you get anything out of the course that will be of any lasting value to you? If so, what and why?"** and **"Did the course change any of your attitudes about other cultures? If so, please discuss in as much detail as possible."** Below is a sampling of their responses:

*"I learned that I should be open-minded about the norms and rules of each culture. Each culture has a reason why they consider something normal and why they have laws different from other cultures."*

*"It made me realize things they may be doing seem rude. But they are simply trying to be friendly. Since we live in a country where so many cultures are living together, we do have to understand that we all just want to be friends and fit in. I also learned to give everyone a chance and not everyone in the same race has the same personalities or outlook in life. If we could all just give each other a chance, our country as a whole may be a different nation. I am trying as hard as I can to avoid stereotypes and be as culturally relative as possible."*

*"I have to accept that I also used to think that many cultures were doing things wrong and were inferior to [my] culture, but now I know the reasons that are behind all this and this changed my attitudes. Now I feel that cultures are different but there is no better culture."*

*"I will always remember not to judge a person if he or she does something differently than me...I did not really talk to Chinese people a lot [before] but now I like talking to them because they are very interesting people" [This student did his/her paper on The Joy Luck Club.]*

*"This course help me to understand the other cultures because I didn't understand why people act different from me or say things on which I wasn't agree. But now I know that each country have their own way of think according to their culture and now I know why is that and I understand that and I feel good to know that."*

*"I learned to realize the many different cultures that are around me. I learned to accept the values and customs that are performed by others, and not acting "ethnocentric" toward them. I also learned to understand the different points of view and values that my parents have due to the generation gap and my acculturation to the American values."*

### 3. Handouts:

Most of the students felt that I gave them an excessive number of handouts, yet they said they found them all to be helpful. There were two suggestions in the evaluations that I will incorporate the next time I teach the course:

1. I will color code the handouts so that all handouts on the same project (e.g., term paper) are the same color; and
2. I will only give handouts that are appropriate to the project the student has chosen. (In other words, rather than give all the students sample Cultural Elements pages from all the novels, just give them a sample page from the novel they have chosen. As the student pointed out, this will help save trees!)

### 4. Surprise Quizzes:

With regard to the surprise quizzes on the reading assignments, I intend to incorporate two suggestions from the student evaluations the next time:

1. Announce that one is "coming up this week" to help inspire students to do the readings.
2. Make them worth more than just one bonus point. (I'll give two points next time.) Many of the students felt this would give them a greater incentive to keep up with the readings.

Overall, I believe that Project LEAP has greatly enhanced my teaching skills. The students also performed better than they did in the same course the previous term. One of the "costs" of the approach is that I am not able to cover as much material as I have been able to in the past. The extra class time spent going over the assignments, passing back papers, and doing LEAP style activities took an extra two sessions of time over the quarter. However, I think that although the students were exposed to less content than usual, they will remember much more of what they learned. As one LEAP study group student commented, while she is getting the same grades in this course as in her others (an A), she remembers what she learns in this course much better. Grades on the exams were consistently higher than the previous quarter.

As a teacher, the LEAP approach has increased my workload nearly ten-fold. The major increase is in the time it takes to read and evaluate all the steps of the assignments. The final products are much better than they were last term, but it took a great deal of time. Ideally, one would have a graduate student assistant to help read papers. Eliminating the short project will help somewhat. Overall, I felt that it was worth it, particularly if it helps develop students' study skills. Although the few students who reported that it did were part of the LEAP study group, I think it may

have also helped other students in ways they don't realize. [Or perhaps I just need to think that in order to justify all the extra work I put in!]

Perhaps an indication that it has helped their time management skills is the fact that 19 out of 38 students turned in an optional rough draft of their short project and 11 out of 38 turned in an optional rough draft of their term paper. I have always encouraged students to turn in a rough draft for evaluation, but never have more than two or three students taken advantage of this option.

If anyone is considering adopting the LEAP model for this course, but is reluctant to spend the time evaluating all the steps of the assignments, I would recommend that they have each student pair up with a writing partner. Writing partners would then evaluate each step of the other's assignment. The professor could collect (but not read) the steps to ensure that students were completing them on time. Writing partners should be selected by the students. Studies indicate that this approach works best when students of unequal skill pair up. The poorer student benefits from the guidance of the better student. The better student (who needs less help) benefits from having to instruct the poorer student. As they say, to learn something, teach it.

I would strongly encourage faculty to incorporate the teaching methods developed during Project LEAP. Since this was the first time I taught the course using LEAP methods, there are still a few rough edges to work out. But I'm quite pleased with the basic product, and look forward to teaching the language enhanced version again, despite the workload.

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Anthropology 250  
Winter 1994  
Geri-Ann Galanti, Ph.D.

## INTRODUCTION TO CULTURAL ANTHROPOLOGY

**Goal of Course:** To understand human behavior from a cultural perspective.

**Basic Assumption:** Most, if not all cultural behavior makes sense from an ecological perspective. It's a logical adaptation to the conditions in which the people live. Cultural conflicts arise when conditions change or people move, because traditions change much more slowly.

**Approach to Course:** We'll look at classical anthropological ways of interpreting and understanding human behavior. At the same time, we'll try to apply the principles and perspectives we learn to understanding our own lives, as well as the cultural diversity in Los Angeles.

**Required Texts:** Whiteford & Friedl, The Human Portrait ("text") Annual Editions, Anthropology 93/94 ("AE") Time Magazine (Fall 93) -- The New Face of America ("Time")

Choose one of the following books. (They can be purchased at most bookstores -- some of which may sell that at a discounted price.) The book you choose will be used for your term paper.

Crichton, Michael - *Rising Sun*  
Hillerman, Tony - *The Blessing Way*  
Tan, Amy - *The Joy Luck Club*  
Esquirel, Laura - *Like Water for Chocolate*  
McMillan, Terry - *Waiting to Exhale*



## Course Outline & Reading Assignments

The following is a tentative outline, subject to change. The exact amount of time spent on each topic will vary according to the needs of the class.

- Jan. 3: Introduction -- Cultural Values exercise  
Reading assignment for in-class writing assignment to be given.
- 5: Basic concepts -- Text, chap. 3; Time pp. 3-15  
**In-class writing assignment**
- 10: Basic concepts -- AE#32; Time pp. 78-79  
Role Playing exercise  
**Name of book for term paper due**
- 12: Basic concepts -- Text, Chap. 3; AE#4, 8, 42; Time pp. 18-33:
- 17: **no class -- school holiday**
- 19: Basic concepts -- Text, chap. 4, AE#1, 3; Time pp. 34-59  
**Project Statement due**
- 24: Subsistence Technology -- AE#17  
Subsistence Group Activity  
**Bibliography/List of informants for term paper due**
- 26: Subsistence Technology -- Text, chap. 9 (pp. 245-256); AE#38  
Kinship
- 31: **Exam #1 [Basic Concepts & Subsistence Technology]**  
Kinship -- Cross & Parallel Cousins exercise
- Feb. 2: Marriage & Family -- Text, finish chapter 9  
Marriage & Family Group Activity  
Groups meet to discuss novel for term paper and make list of cultural elements  
Categorization exercise  
**Kinship Project due**
- 7: Marriage & Family -- AE#18; Time pp. 64-72  
**List of cultural elements from novel due**
- 9: Marriage & Family -- AE#20, 21

- 14: **Exam #2 [Kinship and Marriage & Family]**  
Economic Systems --Text, chap. 10
- 16: Economic Systems -- AE#16; Time pp. 80-81  
**List of cultural elements from ethnographies/informants due**
- 21: Political Systems -- Text, chap. 11; AE#15, 34; Time pp. 60-61; 73-77  
**Last day to turn in Project with opportunity to rewrite it.**
- 23: **Exam #3 [Economic Systems and Political Systems]**  
Sex & Gender -- AE#10
- 28: Sex & Gender -- AE#22, 23, 25  
Video: What Sex Am I?  
Small Group discussion on sex roles  
Writing Center Handout  
**Rough draft of term paper due**
- Mar. 2: Magic & Ritual -- Text, chap. 12 (+ "Baseball Magic"); AE#28, 31
- 7: Religious Experience -- Time pp. 62-63  
Video -- Spirit Possession
- 9: Religious Experience -- Shamanic journeying -- AE#26  
\*\*\*Bring a sleeping bag, blanket, or beach towel (pillow optional)  
\*\*\*Wear comfortable clothing  
**Term paper due**  
**Last day to turn in Project**
- 16: **Exam #4 [Sex & Gender; Magic & Ritual; Religious Experience]**  
**Plus: In-class writing assignment.**  
1:30-4:00

## Course Requirements

There will be 4 exams, a term paper, two short projects, and two brief writing assignments.

### Exams

There will be 4 exams, each consisting of 15 to 40 objective questions worth 1 point each. (You will also have the option of taking an all-essay exam each time.) The last exam will be given during the final exam period. The exams will be worth a total of 100 points.

The exams will directly cover only the material since the previous exam, although it is expected that you retain basic anthropological concepts.

Make up exams will be given under unusual circumstances with the prior approval of the instructor. All make up exams will be entirely essay.

Although there will be questions taken from the readings, the exams will emphasize the lecture material.

### **Written Assignments**

There are two major types of writing assignments. The goal of the **term paper assignment** is to help you gain the kinds of skills you need to evaluate the way various media present different ethnic groups found in the United States. Often times, works of fiction which portray an ethnic group are perceived as racist. This assignment will give you practice using the tools to draw your own informed conclusions.

The goal of the **projects** is to help you see how you can use anthropological principles and techniques to better understand your own life.

### **Term Paper**

Read either *The Blessing Way*, *Rising Sun*, *The Joy Luck Club*, *Waiting to Exhale*, or *Like Water for Chocolate*. Take notes on what you learned about the culture portrayed in the novel. Next, do some research (at the library and/or through interviews) on how accurately these novels portray the cultures described. Then write a 4-6 page (typed, double-spaced) paper discussing the above two issues. Papers will be graded on both content, appearance, and writing style. The paper will be worth 50 points. [See **handout on term paper for further detail.**]

Papers are due no later than **March 7**. Late papers will lose 1 point per day!

### **Projects**

You will be required to do **2 projects**, worth 20 points each. Everyone will do the **Kinship** assignment (to be handed out later). For your second project, choose from the attached list. Each of these projects should be 2-3 pages unless otherwise noted, typed and double spaced. The **Kinship Project is due February 2**. The other project may be turned in at any time during the quarter, but no later than **March 9**. You must turn in a statement regarding your intended project no later than **January 19**. Papers which are turned in by **February 21** may be rewritten and resubmitted for a (possibly) higher grade [See **handouts for further details.**]

## **In-Class Writing Assignments**

There will be two short writing assignments given: one the second day of class, and one during the final exam period. They are worth 5 points each. The assignments will be based upon a short article which you will be given on the first day of class. You will be expected to read the article at home, and come to class prepared to write on it. The specific writing assignment will be given in class. **YOU MUST DO THESE ASSIGNMENTS IN ORDER TO RECEIVE A GRADE IN THIS COURSE.**

## **Extra Credit**

You will have the opportunity to earn several extra credit points. They can be earned in 3 ways:

- 1) Type a 1 page report on a cross-cultural misunderstanding which you observed or participated in. Be very specific. After describing the conflict/misunderstanding, explain in detail why it occurred with reference to each participant's values, world view, customs, etc. Explain everything explicitly and precisely. Be sure to identify the age, sex, and ethnic group of everyone involved. These reports are worth a maximum of 3 points each. You may submit a maximum of 2 reports during the quarter.
- 2) "Surprise" quizzes will occasionally be given at the beginning of the class. They will cover the readings assigned for that day. If you get all the questions correct, you can earn 1 extra credit point.
- 3) I will occasionally give you a take-home short writing assignment that will be worth 1 extra credit point.

## **Grading Scale**

180-200	= A
160-179	= B
134-159	= C
100-133	= D
Below 100	= F

If you are within 2 points of a grade, I reserve the right to raise your grade based upon class attendance and participation. This is not automatic; it is designed to reward exceptional class participation.

## Please Note:

### Office Hours

I will be holding office hours after each class period. I can also be available before class by appointment. Please stop by. In general, the purpose of office hours is to meet with students to discuss the assignments, exams, readings, lectures, or any other questions or concerns that might arise. It is also an opportunity for the student and the instructor to get to know each other. I want to meet and talk with each of you. So, please stop by -- even if it's just to say hello.

### Missed Classes

It is expected that you attend all class sessions. However, it is understood that an occasional emergency may arise in which you must miss class. If that happens, I will let you copy my lecture notes for the missed class session --**on a one time basis**. If you miss more than one class, you must make your own arrangements to get the notes from another student.

### Homework

I will occasionally assign homework, consisting of a handout with questions you must answer. These assignments will be used in the next class period. **If you do not turn in the homework on time, you will lose 1 point from your total grade.**

## KINSHIP ASSIGNMENT

Anthropologists place much emphasis on describing kinship relations in whatever society they study. The **goals** of this project are to give you practice in drawing kinship diagrams and to help you see first hand how such diagrams reflect social relationships.

1. Do a kinship diagram for your family, using the model presented in class.
2. Label yourself "ego."
3. Number all the other individuals.
4. On a separate sheet, list all the individuals by name, according to the number you assigned them, and state their relationship to you.

5. On another sheet, answer the following questions. This portion of the assignment should be 1-3 pages, typed, double-spaced.

- Did you leave out any of your relatives?
- If so, why?
- Whom do you consider to be your closest relatives? (You can list them by number, and then state their relationship -- e.g., sister, cousin, etc.)
- How is your relationship with them different from that of your other relatives?
- Why do you think you're closer to them? (In other words, why them and not others?)
- Did you learn anything unexpected while doing this assignment? If so, what?

Projects will be evaluated on the basis of accuracy (did you use the correct symbols in your diagram), general appearance (i.e., how much effort went into your diagram), and how completely you answered each question.

**The assignment is due:**

## PROJECTS

**Goals:**

- 1) To help you see how you can use **anthropological principles and techniques** to better understand peoples' experience from the **emic** perspective;
- 2) To help practice **interviewing skills** which you can transfer to your term paper assignment;
- 3) To help you practice **integrating material** from a variety of sources, including the textbook, lectures, and peoples' life experience.

**Assignment:**

Choose **one** of the following topics. Plan to spend 2-4 hours working on your project. Your paper should be 2-3 typed, double-spaced pages.

1. Interview someone from a minority ethnic group (other than your own) about their experiences with racial prejudice. Write a paper based upon your interview. Be sure to include specific examples and to focus on their feelings.

*A primary goal of this course is to increase understanding of other cultures and expand awareness of what life is like for members of different ethnic groups. This assignment is designed to further that goal, by learning the nature of a minority ethnic experience from an emic perspective. If you are a member of an ethnic minority, it may also help you to relate to members of another ethnic group by seeing the similarities between your experiences.*

2. Interview someone from another ethnic group. Ask them what their three most important values are. Make sure they give you several specific examples of their behavior which reflects these values. Write a paper on the relationship between their values and behavior. Are these values typical for their culture? If not, where/how did they learn them?

*This assignment is designed to help you see the truth in the anthropological premise that nearly all behaviors reflect an individual's values.*

3. Interview someone who was born outside of the U.S. and came to this country after the age of 13 about their experience of culture shock. How does it fit the model described in class? (Honeymoon Phase, Disenchantment Phase, Beginning Resolution Phase, Effective Function Phase.) Make sure you give specific examples from each phase and include their feelings. [Note: interview date for this project should be set for after January 19.]

*This assignment is designed to help you see how the model of culture shock can be applied to people's personal experience of coming to another country. It is also designed to help you be more sensitive to the experience of others. Finally, if you yourself have experienced culture shock, it is meant to show you how similar the feelings produced are, even if the details of the experience are different.*

4. Interview someone from another ethnic group on the following topics: What qualities are they looking for in a mate? Why? Do they think their parents would select the same mate for them as they would? If, why? If not, what qualities would they look for? How do they explain the difference between what they want for themselves and what their parents want for them? Then write an ad, advertising for a mate for them, based upon the model of those found in East Indian newspapers. [Note: interview date for this project should be set after February 7.]

*This assignment is designed to help you consider the cultural practice of arranged marriages, and learn what qualities in a mate are valued by another culture. It will also give you practice in writing according to the guidelines presented by a model.*

5. Interview someone about a conflict they were involved in. How did they resolve it? For your paper, describe the conflict and the resolution. Apply the model of conflict resolution presented in your textbook on pages 296-297 to your analysis of how it was resolved. In other words, which method(s) in the model did they use? Provide specific examples.

*This assignment is designed to help you apply principles of conflict resolution learned in class to real people's lives.*

6. Interview a transsexual or homosexual (male or female). Find out what the experience of being transsexual or gay in this society is like for them. Write a paper based upon your interview.

*The unit of Sex and Gender is designed to help you overcome any prejudices they might have, by seeing how culture influences attitudes. This assignment is designed to further that goal, by learning the nature of the transsexual or homosexual experience from an emic perspective.*

**All papers should include a detailed description of your research methodology [e.g., Did you use a tape recorder or take notes? How well did you know the person? How long did the interview last? Where did it take place? How comfortable was the person, etc.]**

**Due Dates:**

**January 19:** Project statement due. State which project you have selected and why. Give some information about the person you have chosen to interview (age, sex, ethnicity, etc.). Include the date(s) you have scheduled for your interview. **Also include a list of questions you plan to ask them.** Late statements will lose one point per day.

**February 21:** Last day to turn paper in for comments. If you turn your paper in by this date, you may choose to rewrite it according to my comments, and resubmit it for a (possibly) higher grade.

**March 2:** Last day to turn in project. Late papers will lose one point per day. I strongly recommend you turn it in earlier in the quarter.



## TERM PAPER

Read either *Rising Sun* (Japanese culture) *The Joy Luck Club* (Chinese culture), *Waiting to Exhale* (African American culture), *Not Without My Daughter* (Iranian culture) or *Like Water for Chocolate* (Mexican culture). **Make sure you choose a novel about an ethnic group other than your own.** Take notes on what you learned about that culture from the novel. Next, interview at least 3 people who are members of the ethnic group portrayed in the novel regarding how accurately the novel depicts the cultures described. Then write a 5-8 page (typed, double-spaced) paper discussing the above two issues. Papers will be graded on content, appearance, and writing style.

### Objectives:

- 1) For students to be able to read works of popular fiction that focus on various ethnic groups and evaluate the accuracy of the cultural information presented.
- 2) To give students experience in collecting data utilizing a primary anthropological technique -- interviewing.
- 3) To give students the opportunity to learn about another ethnic group by talking to several members of that group.

**Thus, the assignment has three basic parts:**

- A. Present cultural information from the novel about the group discussed. The information should be organized according to the topics covered in class. (e.g., what information did you learn about their values, world view, kinship system, marriage & family practices, economic system, religious beliefs, etc.) Do not simply list points, but present an organized description of the culture which includes as much information about them as possible.
- B. Interview several (3-5) members of that ethnic group (refer to them as "informants"). Look specifically for the points covered in the novel. Discuss how the information presented by the novelist is supported or contradicted by the informants.
- C. Evaluate how accurately the novelist presented the cultural material. If there are discrepancies -- differences between what the novelist had to say and what the informants said -- analyze why they exist. Was the novelist biased? Was he/she presenting individual rather than cultural behavior? Was the information simply related to a plot point? Were the informants biased? If so, in what way? Do the different informants give the same or contradictory information? If contradictory, why?

## How to do the assignment:

### Step 1: Read the novel

As you read the novel, underline any information given about the culture. [See sample sheets at end of this handout for the kinds of cultural data to note.]

### Step 2: Select your informants

Choose 3-5 people who are members of the ethnic group you are reading about. Try to get both first and second generation informants. Consider interviewing other members of the class who are from the culture depicted in the novel.

### Step 3: Make a list of cultural elements

Copy the passages you underlined in step 1 onto several sheets of paper. Be sure to note the page number where you found the information by each point you list.

Next, organize your notes into topics (values, religion, death & dying, etc.) We will be doing an in-class exercise to help you with the process of categorization.

Go over your list. For each item you've listed, ask yourself, "What does this say about [Mexican, Chinese, etc.] culture?" Write it down on another sheet of paper -- you will need it in Step 6. If it doesn't say anything about the culture, then it may just be about the character or plot of the novel. In that case, do not include it in your list of cultural elements.

**Step 4: Write a one page (typed, double-spaced) description of the culture ["Cultural Description"].** Do not include any quotations; just give the most important information you learned about the culture. Write it in essay form. **Turn it in.**

**Step 5: Turn in your revised list of cultural elements along with your one-page description of the culture.**

See handout entitled, "Sample List of Cultural Elements"

**Step 6: Rephrase each cultural item into your own words.**

List each bit of information you get about the culture onto a separate sheet of paper. [Look at the description of the culture that you wrote in Step 4. This will help you write the statements.] For example: On page 94 of *Like Water for Chocolate*, it states, "only Tita, whose mission it was to serve her until death, was allowed to be present during this ritual, to see her mother naked." The Cultural information here is that: Female modesty is very important in Mexican Culture.

Turn your statements into questions for the interview. For example, you might ask, "Is modesty important for women in your culture? Can you give me some examples?"

List each question at the top of a separate sheet of paper, which you will use to write your informants' answers during the interviews.

**Step 7: Interview your informants**

Ask them the questions you wrote about the cultural elements in Step 6. Make sure to have them give you specific examples which support their view. [Again: write the answers of each informant to the same topic on the same page, but be sure to note whom it is you are interviewing.]

**Step 8: Turn in your list of informants' views**

See handout entitled, "Sample List of Informants' Views."

**Step 9: Write the first draft of your paper.**

**Step 10: Write the second draft of your paper. Turn it in.**

**Step 11: Write the final draft of your paper.**

Integrate the suggestions I made on your earlier draft. Take it to the Writing Center for help, if necessary.

**Step 12: Turn in your paper.**

**How to write the paper:**

The introduction of your paper should state the name of the book you selected and the culture described. Give the name of the novelist, his/her ethnic background, and his/her "credentials" to describe that culture. [You may be able to get this information from the book jacket. Or, you may need to find a newspaper or magazine interview with the author.]

You should then state the sources you used to evaluate the cultural material -- the names of the people you interviewed. (You may use pseudonyms to protect their privacy. Do not use initials, however; they are not as easy to read and do not indicate sex.) Be sure to **provide relevant background information about your informants:** their age, sex, how long they lived in their native country, how long they've been in the U.S., whether they live in an ethnically diverse community or a homogeneous one, how well you know them, why you chose them, etc. Also **state your research methodology:** did you tape record the interviews? Take notes? Write notes from memory? Did your informants appear to be comfortable? Telling the truth? Etc. The purpose of this information is to help your reader assess the validity of your informants' statements.

Then state the major topics you will discuss. (e.g., values, marriage & family patterns, religious beliefs, etc.) Much of the material you used in your one-page cultural description will be used here.

In the body of your paper (Parts A & B from "Objectives"), present what the novelist had to say about each topic (e.g., religious beliefs) and then compare that with what the informants had to say on that same point. [Note: Select 5-8 of the most important or interesting cultural elements to write about in your paper.]

The conclusion (Part C from "Objectives") of your paper should discuss how accurately (or inaccurately) the novelist presented the culture. Analyze any discrepancies. (See "C" of "Objectives" above.)

**Target Audience:** An intelligent college student who is taking this course, but has not read the novel.

### Citations:

When you cite information from the novel, state either the author's name (e.g., Crichton states...), followed by the page number, or refer to the title of the book (e.g., *In Rising Sun...*) If it is a direct quote, use quotation marks. If you are paraphrasing, you do not need quotation marks.

When you cite information from your sources, be sure to attribute it to them.

### EXAMPLE from *Rising Sun*

Connor, the main character in *Rising Sun*, mentions the ethnocentrism of the Japanese several times. For example, he states that "everyone who is not Japanese is a barbarian...stinking, vulgar, stupid barbarian. They're polite about it because they know that you can't help the misfortune of not being born Japanese" (pg. 20). My informant, Daniel Tanaka, agreed that the Japanese are ethnocentric, stating that, "They are a very racist people, although they will be polite to your face."

Please note the following:

- 1) Book titles are always capitalized and underlined or italicized [e.g., The Joy Luck Club or *The Joy Luck Club*.]
- 2) The punctuation mark (for example, a period) goes after the page number, not after the quote [e.g., "They're polite about it because they know that you can't help the misfortune of not being born Japanese" (pg. 20).]

## Evaluation Criteria:

The paper will be worth a maximum of 50 points. It will be evaluated upon the following points.

- 1) How completely you present the cultural data included in the novel and how well it is organized/categorized (30%);
- 2) How well you relate the data from the informants to the material from the novel (30%);
- 3) Presentation of background data on the informants (10%);
- 4) How well you discuss the accuracy of the novel (20%);
- 5) Your overall organization, writing style, grammar, spelling, and presentation of your research methodology (10%)

## DUE DATES:

**April 4:** You must select your novel. Turn in a sheet of paper with the name of the novel to the instructor.

**April 13:** Turn in a list of informants you will be using, including a few sentences describing each one and why you chose them.

**April 25:** Bring list of cultural elements from your novel to class. Turn in one page, typed "Cultural Description."

**April 27:** Turn in your notes, organized into anthropological categories, on the cultural information presented in the novel. [See handout entitled, "Sample List of Cultural Elements" for further details.] This must be typed.

**May 11:** Turn in a list of informants' views on the same topics. [See handout entitled "Sample List of Informants' Views".] This must be typed, double spaced.

**May 18:** Turn in rough draft of final paper. It must be typed, double-spaced. If you make a significant number of grammatical errors, I will make a note to that effect on your draft. You must then take your paper to the Writing Center for help before turning in your final draft.

**June 1:** Turn in final paper.

Points will be deducted from final grade for any late material at the rate of one point per day. It is better to turn it in early, rather than take a chance on turning it in late.

**REMEMBER TO HAVE FUN AND ENJOY THE NOVEL!**

**CULTURAL VALUES AND CUSTOMS EXERCISE**

**OBJECTIVE:** To give students an introduction to the kinds of issues covered in the course, as well as get them thinking about their own culture.

**RATIONALE:** By answering questions about their values from their own perspective and that of their parents, and then comparing them with that of their classmates, they can see the effects of culture, generation, and individual differences upon their values.

**PROCEDURES:**

1. Pass out questionnaires in class. This can be done as a homework assignment, or students can be given class time to complete it. I would recommend it as a homework assignment, so that they could get their parents' responses directly from them.
2. Once they have completed the questionnaire, responding according to their own personal views and that of their parents, have them get into groups of four. Students should be in groups of mixed ethnic background.
3. Have students compare their responses with each other.
4. Then, as a class, go over the various responses and discuss the aspects of culture they relate to.

[Note: to save time, you can skip steps 2 and 3.]

**HANDOUT: CULTURAL VALUES AND CUSTOMS**

**Instructions:** Mark the response that best describes your attitude. Then mark the one that would describe your parents' attitudes.

1. Your parents are old and too sick to take care of themselves anymore. What should you do?
  - a) Nothing; it's their problem, not yours
  - b) Move them into your home so you can take care of them
  - c) Put them in a nice home for the elderly
2. You see a young couple kissing in public. How do you feel about it?
  - a) You are shocked at such inappropriate behavior
  - b) You don't think about it; what's the big deal?
3. A woman in her late teens or very early twenties who has sex before marriage
  - a) has dishonored her entire family and should be killed or at least, disowned.
  - b) is normal
  - c) is foolishly ruining her chances for marriage
4. If you could have only one child, would it be better to have
  - a) a girl
  - b) a boy
  - c) either; it makes no difference
5. Your teacher explains something important in class, but you don't quite understand it. What should you do?
  - a) Raise your hand in class and ask the teacher
  - b) Say nothing and hope you will figure it out later
  - c) Ask the teacher during office hours
  - d) Ask a friend who is taking the same class to explain it to you later
6. Who should make the decisions in the household?
  - a) husband
  - b) wife
  - c) both should decide together.
7. You are hungry. A casual friend offers you some food. What should you do?
  - a) accept it immediately with thanks
  - b) accept it only after it has been offered several times

8. You're invited to dinner at a casual friend's house at 7:00 PM. What time should you arrive?
  - a) 7:00 PM sharp
  - b) 7:30 or 8:00
  
9. Which is more important?
  - a) to be on time
  - b) to complete an activity before you move on to another, even if it means you will be late.
  
10. Which statement is more true?
  - a) confrontations should be avoided at all costs
  - b) confrontations are sometimes necessary to clear the air
  
11. Which statement do you agree with most?
  - a) feelings should be expressed
  - b) feelings are private and should not be shown to strangers
  
12. People in positions of authority
  - a) should be obeyed without question
  - b) should not expect people to obey them automatically
  
13. Lack of eye contact indicates
  - a) guilt or dishonesty
  - b) proper respect for superiors
  - c) concern for propriety between men and women
  - d) fear for one's soul



### ROLE PLAYING EXERCISE

**OBJECTIVES:** To make students aware of the kinds of behavioral rules cultures impose upon their members, and to illustrate experientially the kinds of difficulties encountered in a multi-cultural society.

**RATIONALE:** Having to act according to a different set of cultural "rules" will sensitize students to the difficulties that immigrants face in Los Angeles.

**PROCEDURES:**

1. Divide students into three groups -- A, B, and C.
2. Give each student a handout, describing the "rules" for their behavior as a member of that group.
3. Give groups 10 minutes to practice acting according to those "rules."
4. Then move several members of each group to a different group, so that each new group contains members from the original groups A, B, and C. Instruct students to maintain the rules of their original group. Give them 10 minutes to interact in the mixed groups.
5. After completing the exercise, gather as a class to discuss their experience.

**Note:** This activity would probably work better if students were given their instruction sheet to take home the class before, so they could familiarize themselves with the characteristics they had to act out during the next class period.

**HANDOUT: ROLE PLAYING EXERCISE**

**CONFIDENTIAL**

**TO BE SEEN BY GROUP A MEMBERS**

**Group A**

**Behavioral Characteristics:**

1. Make little or NO EYE CONTACT.
2. Do not make small talk. CONSIDER YOUR WORDS CAREFULLY. Leave long pauses before you answer a question. Use as few words as possible. DO NOT INTERRUPT.
3. DO NOT TOUCH OTHER PEOPLE. If someone offers to shake your hand, give them a limp handshake -- you don't want to appear aggressive. STAND ABOUT 4 FEET APART.
4. AVOID CREATING ANY KIND OF CONFLICT. Appear to agree with people, even if you don't. Be as cooperative as possible.
5. Try to avoid talking about yourself. CONSIDER THE NEEDS OF THE GROUP ABOVE YOUR OWN PERSONAL NEEDS.
6. AVOID ANY DISPLAY OF EMOTION.
7. SHOW RESPECT toward anyone older than you.

**Task:** Discuss alternatives to raising tuition fees for students.

**CONFIDENTIAL**

**TO BE SEEN BY GROUP B MEMBERS**

**Group B**

**Behavioral Characteristics:**

1. **MAINTAIN DIRECT EYE CONTACT** whenever you speak with someone.
2. **MAKE SMALL TALK.** Try to avoid any pauses in the conversation. If there is silence, fill it up. Answer questions quickly, without giving them too much consideration. **INTERRUPT OTHERS.**
3. **TOUCH OTHER PEOPLE** as much as possible. Make sure you have a firm handshake; you don't want to appear weak. **STAND ABOUT 2 FEET APART.**
4. **BE AGGRESSIVE.** Start friendly disagreements. Defend opposing points of view when talking to others. **ARGUE FOR THE SAKE OF ARGUING.**
5. Talk about yourself as much as possible. **CONSIDER YOUR INDIVIDUAL, PERSONAL NEEDS** above those of the group.
6. Try to **AVOID REVEALING YOUR EMOTIONS.**
7. **SHOW RESPECT TOWARD ANYONE OLDER** than you, and, if you are female, toward any males.

**Task:** Discuss alternatives to raising tuition fees for students.

**CONFIDENTIAL**

**TO BE SEEN BY GROUP C MEMBERS**

**Group C**

**Behavioral Characteristics:**

1. Maintain **DIRECT EYE CONTACT FOR ONLY ABOUT 3 SECONDS** at a time.
2. **KEEP THE FLOW OF CONVERSATION GOING**, but try to avoid small talk as much as possible.
3. **OCCASIONALLY TOUCH PEOPLE** when you are talking. **STAND ABOUT 3 FEET APART.**
4. When you're arguing or discussing something with a person, listen carefully to what s/he's saying, then present your point of view. Finally, consider both perspectives before making a decision. **DON'T ASSUME THAT YOU'RE RIGHT**, or even that you think differently.
5. Try to balance the needs of the group with your own individual needs. **COMPROMISE.**
6. **MAINTAIN SOME CONTROL OVER YOUR EMOTIONS**; they may be expressed quietly.
7. **SHOW NO RESPECT TO ANYONE OLDER THAN YOU**; the older they are, the less respect they deserve.

**Task:** Discuss alternatives to raising tuition fees for students.

## SUBSISTENCE TECHNOLOGY EXERCISE

**OBJECTIVE:** To illustrate the relationship between subsistence technology and several other aspects of culture. A secondary objective is to give students practice in speaking in front of the entire class.

**RATIONALE:** By having to reason out the relationship between subsistence technology and other aspects of culture, students will see for themselves that many aspects of culture are a logical adaptation to both the environment and subsistence technology.

### **PROCEDURES:**

1. Put students into groups of four.
2. Give each group one of the handouts -- either hunter/gather, horticulturalist, agriculturalist, or industrialist.
3. Instruct them to answer the questions on the handout.
4. After they finish answering all the questions, meet as an entire class.
5. Have students from each subsistence group present their answers and explain why they chose the answers they did. Make sure the students in each group take turns answering the questions for the entire class.
6. Construct a chart on the board which shows the comparable cultural elements for each subsistence group.

**HANDOUT: SUBSISTENCE TECHNOLOGY EXERCISE**

**Instructions:** Answer the following questions, based upon your subsistence technology.

**DO NOT USE YOUR TEXTBOOKS TO LOOK UP THE ANSWERS. REASON THEM OUT.**

**HUNTERS & GATHERERS**

Hunt wild animals, collect wild plants.

Technology -- simple tools, no machinery, no knowledge of how to grow food.

Environment -- sparse. Seasonal movement of animals, seasonal plant growth.

**Questions:** Choose from the answers following each point. Answer in comparison to the other types of subsistence economies.

- population size/density (high, med, low)\*
- family size (large, med, small)
- mobility (yes, some, no)
- shelter (temporary or permanent)
- land ownership (yes, no)
- warfare (yes, no)
- sexual mores (strict, moderate, lenient)\*\*
- social stratification (yes, some, no)
- degree of specialization (high, med, low)\*\*\*
- number of non-subsistence related activities (high, some, low)

\* Consider how many people the land can feed/support.

\*\* What are the society's attitudes toward pre-marital and extra-marital sex? Consider how strictly the society (not individuals) will punish the individual who transgresses.

\*\*\* Do different people do different jobs?

**HANDOUT: SUBSISTENCE TECHNOLOGY EXERCISE**

**Instructions:** Answer the following questions, based upon your subsistence technology.

**DO NOT USE YOUR TEXTBOOKS TO LOOK UP THE ANSWERS. REASON THEM OUT.**

**Horticulturalists**

Primitive farming.

Technology -- hand tools, knowledge of how to grow food, but no irrigation, fertilizer or draft animals. Can't replenish soil. Slash & burn agriculture.

**Questions:** Choose from the answers following each point. Answer in comparison to the other types of subsistence economies.

- population size/density (high, med, low)\*
- family size (large, med, small)
- mobility (yes, some, no)
- shelter (temporary or permanent)
- land ownership (yes, no)
- warfare (yes, no)
- sexual mores (strict, moderate, lenient)\*\*
- social stratification (yes, some, no)
- degree of specialization (high, med, low)\*\*\*
- number of non-subsistence related activities (high, some, low)

\* Consider how many people the land can feed/support.

\*\* What are the society's attitudes toward pre-marital and extra-marital sex? Consider how strictly the society (not individuals) will punish the individual who transgresses.

\*\*\* Do different people do different jobs?

**HANDOUT: SUBSISTENCE TECHNOLOGY EXERCISE**

**Instructions:** Answer the following questions, based upon your subsistence technology.

**DO NOT USE YOUR TEXTBOOKS TO LOOK UP THE ANSWERS. REASON THEM OUT.**

**Agriculturalists**

Advanced farming

Technology -- use of plow, domestication of draft animals, irrigation, fertilizer.

Note: not modern US farming. More like 3rd world countries or the US in the 1800s. (cf., "Little House on the Prairie")

**Questions:** (Choose from the answers following each point. Answer in comparison to the other types of subsistence economies.)

- population size/density (high, med, low)\*
- family size (large, med, small)
- mobility (yes, some, no)
- shelter (temporary or permanent)
- land ownership (yes, no)
- warfare (yes, no)
- sexual mores (strict, moderate, lenient)\*\*
- social stratification (yes, some, no)
- degree of specialization (high, med, low)\*\*\*
- number of non-subsistence related activities (high, some, low)

\* Consider how many people the land can feed/support.

\*\* What are the society's attitudes toward pre-marital and extra-marital sex? Consider how strictly the society (not individuals) will punish the individual who transgresses.

\*\*\* Do different people do different jobs?



## HANDOUT: SUBSISTENCE TECHNOLOGY EXERCISE

**Instructions:** Answer the following questions, based upon your subsistence technology.

**DO NOT USE YOUR TEXTBOOKS TO LOOK UP THE ANSWERS. REASON THEM OUT.**

### Industrialists

Industrialization

Technology -- very advanced.

Example -- the United States today.

**Questions:** (Choose from the answers following each point. Answer in comparison to the other types of subsistence economies.)

- population size/density (high, med, low)\*
- family size (large, med, small)
- mobility (yes, some, no)
- shelter (temporary or permanent)
- land ownership (yes, no)
- warfare (yes, no)
- sexual mores (strict, moderate, lenient)\*\*
- social stratification (yes, some, no)
- degree of specialization (high, med, low)\*\*\*
- number of non-subsistence related activities (high, some, low)

\* Consider how many people the land can feed/support.

\*\* What are the society's attitudes toward pre-marital and extra-marital sex? Consider how strictly the society (not individuals) will punish the individual who transgresses.

\*\*\* Do different people do different jobs?

## MARRIAGE AND FAMILY EXERCISE

**OBJECTIVES:** To learn about the marriage and family patterns of various cultures.

**RATIONALE:** By answering questions about their culture's attitudes to marriage and family issues and then comparing them in class with the responses of students from different ethnic backgrounds, they will learn more about their own culture and that of others in Los Angeles. At the same time, they will see the relevance of anthropology to modern life.

### **PROCEDURES:**

1. Give the students a set of questions to answer as a homework assignment.  
[Note: they involve the kinds of issues we will be discussing in class lecture -- from attitudes toward pre-marital sex to wedding ceremonies.]
2. Instruct students to answer them from the perspective of their own culture.
3. During the next class period, put the students into mixed cultural groups of about 4 students each to compare their responses.

**HANDOUT: MARRIAGE AND FAMILY EXERCISE**

**Instructions:** Fill this sheet out at home. Be prepared to discuss it in class at the next class meeting. Failure to turn it in will result in the loss of one point.

What is your cultural/ethnic background?

1. At what age are people expected to marry?
  
  
  
  
  
  
  
  
  
  
2. What is your culture's attitude regarding pre-marital sex? Is there a double standard (different attitudes/rules for boys and girls)?
  
  
  
  
  
  
  
  
  
  
3. What would your parents do if their unmarried teenage daughter became pregnant? How would they react?
  
  
  
  
  
  
  
  
  
  
4. Do people marry for love or are marriages arranged?
  
  
  
  
  
  
  
  
  
  
5. What are considered ideal traits in a husband? In a wife?
  
  
  
  
  
  
  
  
  
  
6. What is the culture's attitude toward adultery (extra-marital sex?)

7. Are there some circumstances in which society is more accepting of adultery?  
Less accepting?
  
8. Is it considered acceptable for a married man to have a mistress? If so, is it  
openly discussed or kept hidden?
  
9. What is considered the ideal family size?
  
10. Is there a preference for sons or daughters? If so, which one and why?
  
11. Is a man allowed to have more than one wife? If so, under what circumstances?
  
12. Whom do you live with after marriage?

13. Describe the wedding ceremony. Who is expected to pay for it?

14. Do you marry for life or only as long as you are happy?

15. What do you have to do to get a divorce?

### CATEGORIZATION EXERCISE

**OBJECTIVE:** To help students learn the task of categorizing information according to anthropological categories and to help them distinguish cultural information from plot and character points.

**RATIONALE:** These skills are necessary for the successful completion of the term paper assignment.

**PROCEDURES:**

1. Give students a handout which lists common cultural categories and includes several different statements.
2. Put students into groups of four and instruct them to sort the statements into categories, utilizing the list above. Warn them that some of the statements reflect plot or character elements, and should not be categorized into any of the above categories.
3. When they have completed sorting them, give them the "Answer Sheet" in which the statements have been arranged and listed under five category headings.
4. As a class, discuss why they were sorted that way.
5. Later, during the same class period, have students get into groups to compare their lists of cultural information from their novels. Recommend that they practice sorting the information into categories.

**HANDOUT #1: CATEGORIZATION EXERCISE**

**Instructions:** Group the following statements together by category. (For example, give the ones you think belong in the same category, the same number or letter.) Then label the categories, using anthropological concepts. Choose from the following list. **Note that some of the statements may simply refer to plot or character points, and say nothing about the culture.**

**Common anthropological categories:**

- Customs
- Dispute Resolution
- Economic System
- Family
- Kinship System
- Language & Communication
- Magic
- Marriage Patterns
- Healing & Health Care Practices
- Religion
- Rituals
- Sex Roles
- Social Control
- Social Structure
- Subsistence Technology
- Values
- Witchcraft
- World View

He assumed things wouldn't work out. After all, life is hard and then you die.

She saw him across the room. "God forgive me, but I want to grab him and kiss him." Then she quickly banished the thought from her mind, afraid she would burn in Hell.

Loyalty was very important to them. People commonly worked for one company their entire life.

She kissed him with a passion she had never known was possible. "This is nice," she thought. "I'd like to do it again."

She lit a candle and said the prayers over the bread and wine. The sabbath had begun.

The next 24 hours would be spent with her family and with God.

She strongly believed that everything happened for the best. That's why she didn't worry when she was laid off her job. She knew something better would come along.

She refused to follow in her mother's footsteps. No way would she stay at home and be a wife and mother. She was going to have a career, and no man could stop her!

He was a fitness fanatic. Every morning he went to the gym, and every evening he ran five miles.

He looked at his face in the mirror. "My nose is too long. And my chin is so pointy. How will anyone ever love me?"

His younger brother obeyed him without question. As he should. It was always that way; younger siblings obeyed older siblings.

The doctor threw his cup of coffee to the ground in anger. The nurse immediately went to wipe it up. Her co-worker tried to stop her. "Are you crazy? He spilled it. Let him wipe it up." The nurse simply looked away and said quietly, "But he's the doctor."

They took out their guns and pointed them at the store owner. "Your money or your life!"

No matter what, her family always came first. Without family, you have nothing.

He was tough. He was strong. He would work as many hours as necessary to provide for his family. Any man with self-respect would do the same.

The body was washed and dressed in beautiful new clothes. It was important that he make a good impression when he appeared before the ancestors on his journey to the spirit world.

She was a good wife and mother. She always had dinner on the table when her husband returned from work and was home when her children returned from school.



**HANDOUT #2: CATEGORIZATION EXERCISE ANSWER SHEET**

**World View**

He assumed things wouldn't work out. After all, life is hard and then you die. **(Pessimistic world view: life is hard)**

She strongly believed that everything happened for the best. That's why she didn't worry when she was laid off her job. She knew something better would come along. **(Optimistic world view: things happen for the best)**

**Values**

Loyalty was very important to them. People commonly worked for one company their entire life. **(Value: loyalty)**

He was a fitness fanatic. Every morning he went to the gym, and every evening he ran five miles. **(Value: physical fitness)**

No matter what, her family always came first. Without family, you have nothing. **(Value: family)**

**Religion**

She saw him across the room. "God forgive me, but I want to grab him and kiss him." Then she quickly banished the thought from her mind, afraid she would burn in Hell. **(Religious attitude toward sex)**

The body was washed and dressed in beautiful new clothes. It was important that he make a good impression when he appeared before the ancestors on his journey to the spirit world. **(Religious beliefs regarding the afterlife)**

She lit a candle and said the prayers over the bread and wine. The sabbath had begun. The next 24 hours would be spent with her family and with God. **(Religious practices)**

## **Sex Roles**

She refused to follow in her mother's footsteps. No way would she stay at home and be a wife and mother. She was going to have a career, and no man could stop her! **(Role of women)**

He was tough. He was strong. He would work as many hours as necessary to provide for his family. Any man with self-respect would do the same. **(Role of men)**

She was a good wife and mother. She always had dinner on the table when her husband returned from work and was home when her children returned from school. **(Role of women)**

## **Social Structure**

His younger brother obeyed him without question. As he should. It was always that way; younger siblings obeyed older siblings. **(Hierarchical structure)**

The doctor threw his cup of coffee to the ground in anger. The nurse immediately went to wipe it up. Her co-worker tried to stop her. "Are you crazy? He spilled it. Let him wipe it up." The nurse simply looked away and said quietly, "But he's the doctor." **(Hierarchical structure)**

## **Plot and Character Points (Not cultural elements)**

She kissed him with a passion she had never known was possible. "This is nice," she thought. "I'd like to do it again."

They took out their guns and pointed them at the store owner. "Your money or your life!"

He looked at his face in the mirror. "My nose is too long. And my chin is so pointy. How will anyone ever love me?"

## GROUP DISCUSSION OF NOVELS

**OBJECTIVE:** To help the students with their term paper project.

**RATIONALE:** By comparing "notes," students can help each other with their term paper assignment.

**PROCEDURES:**

1. Tell the students to bring in a list of cultural information they obtained from their novel.
2. Put them into groups of 4-5 people, all of whom read the same novel.
3. Instruct the students to compare the data they extracted from the novel, as well as discuss categorizing the information in the manner practiced during the class exercise conducted earlier that day.

**HANDOUT: SAMPLE LIST OF CULTURAL ELEMENTS**

**Instructions:** Put your **name** in the upper right hand corner.

Your **title** should be the name of the novel, followed by the words, "Cultural Elements."

**List category in boldface.**

Underneath, copy the quotations from the novel which apply to that category. Use quotation marks, and then list the page number.

If you are summarizing ideas (rather than quoting them directly), do not use quotation marks, but do list the page.

Try to group the cultural elements into as few categories as possible.

**Example:**

Geri-Ann Galanti

The Joy Luck Club: Cultural Elements

**Religious Beliefs**

"But his father lived and his grandmother was scared the ghosts would turn their attention to this baby boy and take him instead" (pg. 51).

**Marriage Patterns**

Children could not choose their own husbands in the country; parents chose for them. In the cities, a man could choose his own wife, but he had to have his parents' permission (pg. 51).

"Taiyuanese mothers continued to choose their daughters-in-law" (pg. 51).

**Sex Roles**

It was the role of daughters-in-law to "raise proper sons, care for the old people, and faithfully sweep the family burial grounds long after the old ladies had gone to their graves" (pg. 51).

## CONDUCTING AN INTERVIEW

**OBJECTIVE:** To teach the students how to conduct an interview.

**RATIONALE:** By observing an interview, students will learn some of the techniques involved. They can model their behavior after the instructor's.

**PROCEDURES:**

1. Pass out the handout on Interviewing. Students can refer to this.
2. Select a student (or use the study group leader) from the class.
3. Choose a topic for the interview. For example, if the student comes from another country, you can ask what cultural differences they have observed between their native culture and American culture.
4. As you interview the person, be sure to point out what you are doing as you do it. [E.g., "Notice that she didn't answer that question in very much depth, so I'm asking her for another example." "Notice that you have to be a little pushy."] Refer to the notes on their handout, "Conducting an Interview."

## HANDOUT: CONDUCTING AN INTERVIEW

### General Guidelines for Interviewing

1. **Make a little "small talk" with your informant before beginning the formal interview.**

If you tell them a little about yourself, they may be more willing to share information about themselves.

2. **It is best to use of combination of note-taking and tape recording.**

Taping will allow you to retrieve exact quotes. Good notes will prevent you from having to do extensive, tedious transcribing.

3. **Avoid asking "yes" or "no" questions.**

Such questions don't lead anywhere. If you ask them if they "agree" or "disagree" with your statements, be sure to ask them "why?"

4. **Always press the informant for more details and examples.**

"Can you explain that a bit further?"

"Can you give me an example?"

"Can you give me another example?"

To be a good interviewer, you need to be pushy. Never be afraid to say you don't understand. Ask them to explain it in another way.

5. **If your informant gets off the topic, gently steer him back on.**

"That's interesting, but could you tell me more about \_\_\_\_"

6. **Pay attention to their behavior. Note their body language and the way they speak. For example,**

Do they appear uncomfortable discussing particular topics?

Do they appear to be telling you what they think you want to hear, or what they believe is true?

Do they hesitate before answering? If so, do you think it is because they're unsure of the answer? Lying? Etc.

7. **Assure your informants that they will remain anonymous.**

Ask them if there is a pseudonym they would like you to use instead of their name.

**8. Immediately after the interview:**

Jot down any notes regarding your methodology, the behavior of the informant (see #6 above), and anything else that seems relevant. Include details about how you know the informant.

<b>Specific Guidelines for the Term Paper</b>
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**1. Have a list of questions ready to ask your informants regarding their background and knowledge of the culture.**

**2. Bring several sheets of paper. At the top of each one, list one cultural point from the novel.**

On that same page, write down everything your informant has to say on the topic.

**3. Tell them why you are interviewing them.**

You read a book which presented information about their culture, and you want their opinion as to how accurate it is. Then have them comment on each point.

**HANDOUT: SAMPLE LIST OF INFORMANTS' VIEWS**

**Instructions:** Put your name in the upper right hand corner.

Your title should be the name of the novel, followed by a colon and the words, "Informants' Views."

List the category in boldface.

Underneath, state in **your own words** the cultural information presented in the novel, followed by the **page number**. Next, write the **actual quote** (unless it is from a long passage which you summarized in your "List of Cultural Elements").

Then list what each informant had to say on that topic. Include brief information about your informant (e.g., age, birthplace, years in U.S.).

Make sure your paper is **typed and double-spaced**.

**Example:**

**Geri-Ann Galanti**

Like Water for Chocolate: Informants' Views

**Values: modesty**

Female modesty is very important in Mexican culture. "Only Tita, whose mission it was to serve her until death, was allowed to be present during this ritual, to see her mother naked" (pg. 94).

**Maria**, age 47, born and raised in Mexico, stated: "I agree. Modesty is very important for women. I never even change my clothes in the locker room at the gym; I do it at home."

**Elena**, age 19, born in California (parents were born in Mexico) stated: "It's true for my mother's generation, but not as much for mine. I remember my mother always telling me that the body is private, and I shouldn't let anyone else see it. I, however, feel comfortable being naked with my girlfriends."



Jose, age 22, born in Mexico, but moved to California when he was 8 said, "I never really thought about it, but I guess that's true. I never saw my mother naked. She never even wore a low cut dress. She and my dad get angry at my sisters when they wear short tops and skirts, so, yeah, I guess that's true."

**Do this for each cultural element.**

## THE CULTURAL DEFENSE

**OBJECTIVE:** To have students understand the kinds of legal issues that result from the cultural diversity found in the United States.

**RATIONALE:** By having students discuss real legal issues that have arisen as a result of cultural differences, they will understand the complexity of the effect of cultural diversity on our legal system.

### **INSTRUCTIONS:**

- 1 Put students into groups of four or five.
2. Give each of them a brief written description of an actual case where a crime was committed in the U.S. by an immigrant, and in which cultural factors were a mitigating influence. Do not include the outcome of the trial.
3. Have students decide the defendant's guilt or innocence, and the punishment.
4. Have them present their case, decisions, and reasoning to the class.
5. Afterwards, present the court's decisions.

**HANDOUT: THE CULTURAL DEFENSE**

**Instructions:** Read the following case as described in the newspaper. If you were the judge/jury, how would you decide the case? If you determined that the defendant was guilty, how would you punish him/her? Would you treat him/her the same as a native born American who committed the crime? Be ready to defend your reasoning to the class.

**Notes to the Instructor:**

1. Each handout would describe only ~~one~~ case, and would not include the outcome.
2. The examples, all taken from U.S. newspapers, focus on Asians. This probably reflects the large number of Asians who have immigrated to the U.S., bringing very different cultural customs.

**Cases:**

1. A Japanese woman in Los Angeles acted out the old Japanese custom of parent-child suicide, oyako-shinju, in response to the shame of hearing that her husband had a mistress. She walked into the ocean in Santa Monica, carrying her 6 month old daughter and holding the hand of her four year old son. The children drowned, but the mother was rescued and subsequently charged with first degree murder.

**Outcome:** 4,000 members of the Japanese-American community signed a petition saying that though such acts are no longer legally acceptable in Japan, the Japanese courts would charge her with no more than involuntary manslaughter. But the D.A. refused to reduce the charge. Her attorney used the testimony of six psychiatrists to show she was mentally deranged at the time. The attorney was thus treating a foreign cultural perspective as delusional. The case was plea-bargained down to voluntary manslaughter, and the woman received a sentence of one year in county jail, less time already served, five years probation, and mandatory psychiatric treatment.

2. A Hmong refugee from Laos killed his wife because she was going to take a job working for another man. His attorney argued that in Hmong culture, the wife's intended action was tantamount to adultery, which in that culture, had to be punished by death.

**Outcome:** He was convicted of murder, and sentenced to 8 years.

3. A Laotian man in Fresno engaged in the ritualistic act of abducting his Laotian fiancée and bringing her to his family's home so he could consummate their relationship -- thus ensuring she would not be available for any other man. The fiancée was rather Americanized, and resisted. The man was charged with kidnapping and rape.

**Outcome:** He was allowed to plea-bargain the charge to a misdemeanor of false imprisonment, and the judge handed down a comparatively mild sentence of 90 days.

4. A Korean born merchant in Los Angeles was raided by game wardens and charged with selling wild animal parts, including sliced elk, deer antlers, animal horns, bear gallbladders, skins and paws. In Korea, people have relied on folk remedies made from rare animal parts for thousands of years. He claims he didn't know it was illegal.

**Outcome (not decided):** If convicted, he could face up to 3 years in state prison and a \$5,000 fine.

5. A Chinese man in New York killed his wife by hitting her in the head with a hammer eight times after she admitted to him that she was having an affair. His lawyer argued that the overwhelming sense of shame and humiliation brought on by his wife's adultery put him in a frame of mind where he was no longer in control of his actions. In China, adultery is an "enormous stain" which also reflects on the aggrieved husband's ancestors and descendants.

**Outcome:** In a nonjury trial, he was found guilty of second-degree manslaughter, after reducing a charge of second-degree murder. Legally, the lesser manslaughter charge means that he did not intentionally mean to kill his wife.

### CONFLICT RESOLUTION – CLASS ACTIVITY

**OBJECTIVE:** To give students an alternative to a traditional lecture. Students are asked to become active participants in the lecture.

**RATIONALE:** As students become involved in the teaching process, they become more involved in the learning process. This activity helps students enjoy the process of learning as well as making the learning experience personal.

**PROCEDURE:** Students are told that there are seven different means of conflict resolution. They are: 1) Lump it -- ignore the problem; forgive and forget, 2) Avoidance-- withdraw from the situation and break off social relationships, 3) Coercion -- use force (pay your bill or I'll break you legs!), 4) Negotiation -- both parties sit down and try to resolve differences themselves, 5) Mediation -- third party intercedes to help negotiate, 6) Arbitration -- like mediation, except that both parties agree to accept the arbitrator's judgment before it is given, and 7) Adjudication -- like mediation and arbitration, except the third party is uninvited and makes sure that the decision is enforced e.g., the court system. (Terms and Definitions from Dr. Galanti's lecture notes.)

1. Terms are written on the board and not defined.
2. Pass out the scripts to the students.
3. a. Students involved in the presentations are given about 10 minutes to prepare.  
b. While the students prepare for the presentations, the rest of the students in the class should discuss the definitions of the terms.
4. Students act out their scripts while other students guess what type of conflict resolution they are using.

**HANDOUT: CONFLICT RESOLUTION  
LUMP IT**

**SCRIPT**

You are both trying hard not to argue about who will go to the store. Each of you believes the other should go to the store because you don't have anything to eat. Instead of solving the problem one of you chooses to ignore the problem and instead you forgive each other and forget about the problem and decide to watch television instead. You both end up watching television.

**CONFLICT RESOLUTION  
AVOIDANCE**

**SCRIPT**

You are both trying hard not to argue about who will go to the store. Each of you believes the other should go the store because you don't have anything to eat. Instead of solving the problem one of you chooses to withdraw from the situation and break off the social relationship entirely.

**CONFLICT RESOLUTION  
COERCION**

**SCRIPT**

One of you is the tenant of an apartment while the other is the owner of the apartment. The tenant paid the rent late last month and this month the owner is paying the tenant a visit. The owner tells the tenant that if he doesn't pay the rent by tomorrow the owner will kick the tenant out and break the tenant's legs for not paying the bill.

**CONFLICT RESOLUTION  
NEGOTIATION**

**SCRIPT**

There are three people in group A and three people in Group B. Group A and Group B are involved in a conflict over the sale of three goats. To solve this problem both groups have decided to sit down and try to resolve the problem of the sale of the goats.

## **CONFLICT RESOLUTION MEDIATION**

### **SCRIPT**

Two of you are in Group A, two in Group B, and two in Group C. Groups A and B are having problems over the negotiation of the sale of three goats. Group A owns the goats but Group B thinks that Group B wants more flour and tea than they are worth. In order to solve the problem both Groups A and B decide to go to Group C to help them resolve this conflict.

## **CONFLICT RESOLUTION ARBITRATION**

### **SCRIPT**

Two of you are in Group A, two in Group B, and two in Group C. Group A and B are having problems over the negotiation of the sale of three goats. Group A owns the goats but Group B thinks that Group B wants more flour and tea than they are worth. In order to solve the problem both Group A and B decide to go to Group C to help Group A and B resolve this conflict. However, before going to Group C, both Groups A and B agree to accept the decision made by Group C. There is no discussion over whether Group C is right or wrong.

## **CONFLICT RESOLUTION ADJUDICATION**

### **SCRIPT**

Person A is accused of stealing a Rolex watch from Person B. Persons C and D take these individual into court. The case is presented by both Persons A and B to Person E. Person E will hear both sides of the story and decide who is telling the truth. Person E will also decide what to do to Persons A or B.

### SEX ROLES EXERCISE

**OBJECTIVE:** To make students more aware of the roles of men and women in their own culture and to compare and contrast them with that of other cultures.

**RATIONALE:** By answering the questions and comparing their responses with those of their classmates, they will learn about sex roles in modern cultures.

**PROCEDURES:**

1. Give the students a set of questions regarding sex roles in their own and in Anglo American culture. Tell them to fill it out as homework.
2. During the next class session, put the students into mixed cultural groups of about 4 students each to compare and contrast their responses.



**HANDOUT: SEX ROLES EXERCISE**

**Instructions:** Fill this sheet out at home. Be prepared to discuss it in class at the next class meeting. Failure to turn it in will result in the loss of one point.

What is your cultural/ethnic background?

What is the traditional role of men in your culture? (What are men expected to do?) What qualities should they have?

What is the traditional role of women in your culture? (What are women expected to do?) What qualities should they have?

What do you think is the role of men in American culture?

What do you think is the role of women in American culture?

**SHAMANIC JOURNEYING ACTIVITY**

**OBJECTIVE:** To give students a participant-observation experience of shamanic rituals, a topic covered in class lecture.

**RATIONALE:** Only by experiencing a shamanic journey can students truly understand this type of religious experience. It is based upon anthropologist, Michael Harner's (The Way of the Shaman) work.

**PROCEDURES:**

1. It is suggested that this activity be conducted in class on the last day of the course. It provides an emotionally bonding experience for the students.
2. Instruct the students to bring a sleeping bag or blanket to class.
3. Move all the desks to the perimeter of the room or into the hallway, leaving a large area in the center.
4. Have students place their blankets on the floor, arranging themselves in a circle with their heads pointing to the center.
5. After they all lie down, turn out the lights.
6. Using extreme caution, burn some sage in an abalone shell and use a ritual feather to wave the smoke over their bodies. [The emic purpose of the sage is to cleanse the room of any negative spirits or negative energy.]
7. Instruct the students to close their eyes and imagine descending to the underworld through an opening in the earth -- a cave, a well, a lake, etc. Tell them that when they emerge at the bottom, their Power Animal will be waiting for them. Tell them to have a question ready to ask their Power Animal. Also tell them to end their journey when they hear the drumming change to a rapid rhythm (demonstrate).
8. Begin drumming. Drum at 4 beats per second -- the frequency of theta waves. This will help students enter into a mild trance state. You might want to play a tape featuring drumming and rattling at that same beat to help keep the rhythm. Continue drumming for 5-10 minutes.
9. After drumming rapidly to signal the end of the journey, tell students to open their eyes and sit up when they feel ready.
10. After a few minutes, turn on the lights and discuss the students' experience.

**REVIEW SHEET FOR EXAM #1**

There will be 25 Multiple Choice and True-False Questions.

**Basic Concepts**

acculturation  
adaptation  
cultural relativism  
culture shock  
egalitarian -- what it is & when you find it  
emic  
etic  
ethnocentrism  
hierarchical -- what it is & when you find it  
holism  
participant-observation  
personal space among different groups  
the meaning of eye contact among different groups  
the relationship between emotional expressiveness & the weather  
the relationship between values & behavior  
time orientation  
world view

**Subsistence Economy**

What is the relationship between subsistence patterns (Hunting & Gathering, Industrialism, Agriculture) and the following:

attitudes regarding pre-marital sex  
family structure  
land ownership  
punishment for adultery  
residence patterns (matrilocal, patrilocal, neolocal)

What is the major factor responsible for specialization of labor?

**Note** that some of the questions are taken from the textbook. The topics are listed above. There will also be one question from each of the articles in Annual Editions. These are not listed above, but they generally concern the major point of the article.

The exam will have **15 multiple choice questions and 10 True/False questions.**

Many of the questions are designed to test your understanding of various terms (rather than your recognition of definitions). Make sure you understand the concepts underlying the definitions.

**Bring two (2) scantrons and a #2 pencil.** (The extra scantron is so you can copy your final answers on to it. The scantron machine is very sensitive, and if you have any erasures, you may be marked wrong.)

**REVIEW SHEET FOR EXAM #2**

**Kinship Systems**

affinal  
consanguineal  
cross-cousins  
parallel cousins  
bilateral  
matrilineal -- how to trace; which relationships are most significant  
patrilineal -- how to trace; which relationships are most significant  
unilineal  
fictive kin  
immediate family

**Marriage and Family**

avoidance relationships  
bride service  
bride price  
dowry  
gift exchange  
endogamy  
exogamy  
levirate  
sororate  
polyandry -- what it is; the percentage of cultures which allow it  
polygyny -- what it is; the percentage of cultures which allow it  
monogamy -- what it is; the percentage of cultures which allow it  
family of orientation  
family of procreation  
matrilocal  
patrilocal  
neolocal  
avunculocal  
marriage for love vs. arranged marriages  
why the nuclear family is common in industrialized societies

Note that some of the questions are taken from the textbook. The topics are listed above. There will also be one question from each of the articles in Annual Editions. These are not listed above, but they generally concern a major point of the article.

The exam will have **19 multiple choice questions and 6 True/False questions.**

Many of the questions are designed to test your understanding of various terms (rather than your recognition of definitions). Make sure you understand the concepts underlying the definitions.

**Bring two (2) scantrons and a #2 pencil.** (The extra scantron is so you can copy your final answers on to it. The scantron machine is very sensitive, and if you have any erasures, you may be marked wrong.)

<b>REVIEW SHEET FOR EXAM #3</b>
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<b>Economic Systems</b>
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Kula ring --its function & how it works  
 Potlatch & reason for destruction of property  
 Characteristics of societies based on redistribution  
 Reciprocity -- balanced, generalized, negative  
 Redistribution -- what it is; where it's found  
 Levelling mechanisms  
 Silent trade  
 How to earn prestige  
 Market exchange -- conditions where found  
 Goal of economic behavior  
 Melanesian pig feasts -- when & why they occur

<b>Political Systems</b>
--------------------------

Informal means of social control  
 Types of societies which have social ranking  
 Characteristics of leaders in bands, tribes, chiefdoms, & states  
 Various means of conflict resolution
 

- coercion
- negotiation
- mediation
- arbitration
- adjudication

Oaths

Ordeals

Feuding

Raiding

Warfare

How the text feels the legal system should deal with cases immigrants commit crimes that are not viewed as such in their native culture.

Note that several of the questions are taken from the textbook. The topics are listed above. There will also be one question from each of the articles in Annual Editions. These are not listed above, but they generally concern the major point of the article.

The exam will have 20 multiple choice questions and 5 True/False questions.

Many of the questions are designed to test your understanding of various terms (rather than your recognition of definitions). Make sure you understand the concepts underlying the definitions.

**Bring two (2) scantrons and a #2 pencil.** (The extra scantron is so you can copy your final answers on to it. The scantron machine is very sensitive, and if you have any erasures, you may be marked wrong.)

GOOD LUCK!



**REVIEW SHEET FOR EXAM #4**

**Magic and Ritual**

Imitative & contagious magic  
Malinowski's theory regarding when people use magic  
Taboo  
Fetish  
Ritual  
Similarity between magic & science  
Rites of passage

**Religion & Religious Experience**

Conditions under which new religions arise  
Spirit possession and groups most likely to experience it  
Witch  
Diviner  
Shaman  
Xenoglossia  
Glossolalia  
Relationship bet. political organization and views of gods & spirits

**Course Review**

Acculturation  
Participant-Observation  
Ethnocentrism  
Cultural Relativism  
Emic  
Etic  
Meaning of eye contact (& lack of)  
Time orientation (past, present, future)  
Endogamy  
Exogamy  
Patrilineal  
Matrilineal  
Bilateral  
Conditions under which you find hierarchical cultures  
Conditions under which you find emotional expressiveness  
Conditions under which you find strict rules regarding sexual behavior  
Functions of marriage  
When you are likely to find extended vs. nuclear family

Note that some of the questions are taken from the textbook. The topics are listed above. There will also be one question from each of the articles in Annual Editions. These are not listed above, but they generally concern the major point of the article.

The exam will have **21 multiple choice questions and 4 True/False questions.**

Many of the questions are designed to test your understanding of various terms (rather than your recognition of definitions). Make sure you understand the concepts underlying the definitions.

**Bring two (2) scantrons and a #2 pencil.** (The extra scantron is so you can copy your final answers on to it. The scantron machine is very sensitive, and if you have any erasures, you may be marked wrong.)

**The final exam will begin promptly at 1:30 PM.** You will be given **30 minutes** in which to complete the exam. When that is done, you will be given a brief **writing activity** to do. After that, we will go over the exam, and then **WE WILL PARTY!!!**

**BRING FOOD FOR THE POT LUCK PARTY AFTER THE EXAM.** (I'LL BRING THE PAPER GOODS.)

**HANDOUT: TERM PAPER CHECKLIST**

**Instructions:** Mark off each step as you complete it.

- Step 1: Select a novel from the list.** ✎ Write it down on a piece of paper with your name and turn it in. **Due Date:**
- Step 2: Read the novel**  
As you read the novel, **underline** any information given about the culture. [See sample sheets at end of the term paper handout for the kinds of cultural data to note.]
- Step 3: Select your informants**  
Choose 3-5 people who are members of the ethnic group you are reading about. Try to get both first and second generation informants. Consider interviewing other members of the class who are from the culture depicted in the novel.
- Step 4:** ✎ Type the names of your **informants** on a sheet of paper, along with a brief description of each one. Include their age, sex, country of birth, how long they've lived in the United States, how you know them, and any other relevant information. List the **dates** you've arranged for interviews. **Turn it in. Due Date:**
- Step 5: Make a list of cultural elements**
  - Copy the passages** you underlined in step 2 onto several sheets of paper. Be sure to note the page number where you found the information by each point you list.
  - Next, **organize your notes into topics** (values, religion, death & dying, etc.) We will be doing an in-class exercise to help you with the process of categorization.
  - Go over your list. For each item you've listed, ask yourself, "**What does this say about [Mexican, Chinese, etc.] culture?**" Write it down on another sheet of paper -- you will need it in Step 6. **If it doesn't say anything about the culture**, then it may just be about the character or plot of the novel. In that case, **do not include it in your list** of cultural elements.
  - ✎ Write your **List of Cultural Elements**
    - See handout entitled, Sample "List of Cultural Elements"
- Step 6:** ✎ **Write a one page** (typed, double-spaced) **description of the culture** ["**Cultural Description**"]. Do not include any quotations; just write the most important information you learned about the culture in your own words. Write it in essay form.
  - See handout entitled, Sample "Cultural Description"

- Step 7: Turn in your revised List of Cultural Elements along with your one-page Cultural Description stapled on top. Due Date:**
- Step 8: Rephrase each cultural item into your own words.**
  - List each bit of information you get about the culture onto a separate sheet of paper. [Look at the description of the culture that you wrote in Step 6. This will help you write the statements.]
- Example:** On page 94 of Like Water for Chocolate, it states, "Only Tita, whose mission it was to serve her until death, was allowed to be present during this ritual, to see her mother naked." The cultural information here is that: Female modesty is very important in Mexican culture.
- Step 9: Turn your statements into questions for the interview.**
- For example,** you might ask, "Is modesty important for women in your culture? Can you give me some examples?"
  - List each question at the top of a separate sheet of paper, which you will use to write your informants' answers during the interviews.
- Step 10: Interview your informants**
  - Ask them the questions you wrote about the cultural elements in Step 9. Make sure to have them give you specific examples which support their view. [Again: write the answers of each informant to the same topic on the same page, but be sure to note whom it is you are interviewing.]
- Step 11: Write up and turn in your List of Informants' Views. Due Date:**
  - See handout entitled, Sample "List of Informants' Views."
- Step 12: Write the first draft of your paper.**
  - **Note:** You've already done most of the work. Use the information from your Cultural Description and List of Informants' Views.
- Step 13: Write the second draft of your paper. Turn it in. Due Date:**
- Step 14: Write the final draft of your paper**
  - Integrate the suggestions I made on your earlier draft.
  - Have a friend check your paper for spelling and grammar.
  - Take it to the Writing Skills Center for help, if necessary.
- Step 15: Turn in your paper. Due Date:**

ANTHROPOLOGY 250 MASTER PLAN - WINTER 1994

COURSE SCHEDULE

WEEK

-----  
I Introduction/Cultural Values Exercise  
Homework Article

-----  
Basic concepts  
Text, Chap. 3, Time pp. 3-15  
Pre-test

-----  
II Basic Concepts/Role Playing Exercise  
AE #32, Time pp. 78-79  
Name of novel for term paper due

-----  
Basic concepts  
AE #4, 8, 42, Time pp. 18-33  
Text, Chap. 3

-----  
III HOLIDAY

-----  
Basic concepts  
Text, Chap. 4, AE # 1, 3  
Time pp. 34-59  
Project statement due

LS = language specialist  
SGL = study group leader

STUDY GROUP SCHEDULE

Every meeting:

Thesis identification  
Language & Content "T"

-----  
Group Building: cultural identity (LS)  
Recall: comprehension of concepts  
Lecture: check notes  
Reading: intro to textbook  
Writing: write about cultural identity  
Study skill: syllabus, time management

-----  
Group Building: discuss cultural values exercise  
Recall: comprehension of concepts  
Lecture: notetaking skills (LS) assign lectures  
for notecards (SGL)  
Reading: assign readings for presentations  
(SGL), orientation to assigned readings (LS), thesis  
identification for reading  
Writing: choosing a novel (LS)  
Study skill: critical thinking (SGL)

-----  
Group Building: culture scavenger hunt  
Recall: application of concepts  
Lecture: values, world view  
Reading: "emic" & "etic", cultural perspectives  
Writing: evaluating, write evaluation of class  
activity  
Study Skill: reading a novel (LS)

-----  
Group Building: role-playing exercise  
Recall: Identification of main point of unit  
Lecture: cross-cultural misunderstandings  
Reading: article presentations: AE 32, 4, 8, 42.  
assign next articles for presentations  
Writing: Projects--planning and organizing

-----  
HOLIDAY

-----  
Recall: Identification of main point of unit  
Lecture: culture shock, fieldwork  
Reading: finding the thesis (SGL)  
Writing: Preparing a list of informants (LS)  
Study skill: question note cards (SGL)

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IV      Subsistence Technology  
         Subsistence Group Activity  
         AE #17  
         List of informants for term paper due

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         Subsistence Technology  
         Kinship -- Text, Chap. 9 (pp. 245-256)  
         AE #38

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V        Exam #1  
         Kinship  
         Cross & Parallel Cousins Exercise

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         Marriage & Family  
         Marriage & Family Group Activity  
         Text, finish Chap. 9  
         Groups meet to discuss findings from novels,  
         generate lists  
         Categorization exercise  
         Kinship project due

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VI       Marriage & Family  
         AE #18, Time pp. 64-72  
         List of cultural elements from novel due  
         Interviewing skills

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         Marriage & Family  
         AE #20, 21

-----  
VII      Exam #2  
         Economic Systems  
         Text, Chap. 10

-----  
Recall: evaluate subsistence group activity  
         Lecture: notetaking check  
         Reading: article presentations: AE 1, 3, 17, 38  
Writing: preparation for first project (LS)  
Study skill: Mock exam (SGL)

-----  
Recall: drawing kinship diagrams  
         Lecture: bilateral vs. unilineal  
         Reading: novel update (LS)  
Writing: prepare for kinship paper, introduction to the  
         writing center  
Study skill: research notetaking  
         Review mock exam, game (SGL)

-----  
Recall: Reactions to Exam #1  
         Lecture: cross & parallel cousins  
         Reading: assign articles for presentations & lectures  
         for note cards (SGL)  
Writing: organizing research data  
Study skill: kinship paper update

-----  
Recall: Evaluate group activity  
         Lecture: functions of marriage institution  
         Reading: article presentations: AE 18, 20, 21  
Writing: preparing list of findings from novel  
Study skill: interviewing techniques

-----  
Recall: identification of main point  
         Lecture: notetaking check  
         Reading: research notes check, project update  
Writing: organizing interview research data  
Study skill: mock exam (SGL)

-----  
Recall: review cultural elements from interviews  
         Lecture: marriage ceremonies/residence patterns  
         Reading: review article theses for exam  
Writing: combining/comparing data from novel &  
         interviews  
Study skill: review mock exam, game (SGL)

-----  
Recall: Reactions to Exam #2  
         Lecture: reciprocity, gift giving, money  
         Reading: assign articles and lectures (SGL)  
Writing: preparing list of cultural elements from  
         interviews  
Study skill: outlining project #2

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Economic Systems  
AE #16, Time pp. 80-81  
List of cultural elements from informants due

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VIII Political Systems  
Text, Chap. 11; AE #15, 34,  
Time pp. 60-61; 73-77  
Last day to turn in projects for chance to  
rewrite

---

Exam #3  
Sex & Gender  
AE #10  
(Homework assignment)

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IX Sex & Gender  
Video: What Sex Am I?  
AE #22, 23, 25  
Term paper rough draft due (typed)  
Writing Center handout  
Small group discussion--sex roles

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Magic & Ritual  
Text, Chap. 12 (+ "Baseball Magic");  
AE #28, 31  
pass back rough drafts  
last day to turn in project

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X Religious Experience  
Time pp. 62-63  
Video: Spirit Possession

---

Religious Experience  
AE #26  
Shamanic Journeying Activity  
bring sleeping bag, blanket or towel  
wear comfortable clothing  
Term paper due

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Exam #4 & Writing Post-test

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Recall: identification of main point of unit  
Lecture: notetaking check, note cards due  
Reading: article presentations: AE 16, 15, 34  
Writing: computer lab session (LS)  
Study skill: take-home mock exam

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Recall: assign writing center visit  
Lecture: social control in family, classroom,  
Reading: review article theses for exam  
Writing: organizing the research paper (LS)  
Study skill: review mock exam, game (SGL)

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Group Building: culture potluck  
Recall: Discuss Exam #3  
Lecture: cultural ideas of sexual orientation  
Reading: assign articles for presentations  
Writing: using transitions (LS)

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Recall: discuss video  
Lecture: key points of sex roles discussion  
Reading: article presentations, AE 10, 22  
Writing: term paper peer correction workshop (LS)  
Study skill: staying on schedule with homework

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Recall: Magic and ritual discussion/writing exercise  
Lecture: differences between magic, ritual,  
superstition  
Reading: article presentations: AE 23, 25  
Writing: proofreading workshop (LS)  
Study skill: term paper update

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Recall: identification of main point  
Lecture: initiation rituals, note cards due  
Reading: article presentations: AE 28, 31, 26  
Writing: term paper questions, problems  
Study skill: mock exam

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Recall: evaluate shamanic activity, share  
experiences  
Lecture: altered states, shamans & psychics  
Reading: review article theses for exam  
Writing: evaluation of the course  
Study skill: game for exam preparation (SGL)

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No Study Group Meeting

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## **ANTHROPOLOGY 250: SELECTED EXERCISES AND ACTIVITIES**

- Cultural Identity Exercise
- Syllabus Reading/Time Management
- Orientation to the Assigned Textbook Reading
- Thesis Development for Article Reading Assignments
- Culture Scavenger Hunt
- Presentations and Quizzes  
Handout: Presentations
- Research Project Planning Exercise
- Mock Exams
- Family Feud
- Research Notetaking Workshop  
Handout: Model of Marked Text
- Peer Research Groups
- Introduction to the Computer Lab  
Handout: Word Processing Exercise
- Organizing a Research Paragraph  
Handout #1: Sample Research Notes  
Handout #2: Sample Paragraph Presenting Research Findings
- Culture Potluck
- Writing: Peer Correction  
Handout #1: Term Paper Checklist  
Handout #2: Project Checklist
- Magic and Ritual Discussion and Writing Exercise  
Handout: Magic and Ritual Essay Evaluation Form



## CULTURAL IDENTITY EXERCISE

**OBJECTIVE:** Students will write about their cultural identities and share them.

**RATIONALE:** Cultural identity is a key concept in anthropology. This exercise will introduce students to the concept and to how it applies to them. In addition, the exercise helps with group building and getting to know each other, as well as developing writing skills.

### **PROCEDURES:**

**Part I–Discussion:** Write the words "Cultural Identity" on the board. Ask the group to explain what cultural identity is. Ask the group for examples of things that are cultural (e.g., foods, traditions, holidays, customs); write a list of these on the board. For each item, ask the students for specific examples from their cultures.

**Part II–Writing:** On the board, write "20 minutes: Write about your cultural identity." Explain the writing exercise as follows. Students need to write three paragraphs about their cultural identity. In paragraph one, they should introduce their culture, including who was the first generation to come to the U.S. (e.g. grandparents, parents), and how strongly they identify with their culture. In paragraph two, they should choose 1-3 cultural elements from the list generated on the board. These elements should be personally important. For each element, students should give one or more specific examples from their experience. In paragraph three, students should first summarize the information presented in paragraph two, then make some final comments about their cultural identity. Give students 20 minutes to write.

**Part III–Sharing:** This can be done immediately after the writing step, or at the following meeting. Collect papers from students and redistribute them. Students should read the paper they receive, and try to find the author. When the author is found, students should ask the author one question about his or her cultural identity that was not answered in the essay. If time allows, this procedure can be repeated. At the end of the sharing, each student should tell the class about one classmate's cultural identity, based on what they read and the question they asked.

## SYLLABUS READING/TIME MANAGEMENT

**OBJECTIVE:** Students will read the syllabus and enter important test and assignment dates into a calendar.

**RATIONALE:** Students need to learn the time management skills of planning ahead and scheduling work.

**PROCEDURES:** At the first study group meeting, students should take out and read the syllabus. Then students should get out their calendars. (Study Group Leader should have some copies of a calendar covering the quarter in case some students don't have their own.)

Questions for the group to discuss:

1. Who carries a calendar? Whoever carries one should explain why they carry it and how they use it.
2. When is the first assignment or exam on the syllabus due? Students should enter it on their calendars on the due date.
3. How much time do you need in order to prepare for the first exam/assignment? (This question should be discussed carefully.) Students should enter a reminder on their calendars the appropriate amount of days prior to the due date in order to begin work early enough.
4. Discuss each assignment and exam in this way, with students entering a reminder and a due date for each one.

### **NOTE TO STUDY GROUP LEADER:**

It is important to help students determine a reasonable amount of preparation time for each exam and assignment. For large research papers, the assignment can be broken down into steps with reminders to do the topic, library work, reading, notetaking, etc. on appropriate dates.

A two-sided quarter calendar handout can be made by cutting and pasting copies of the appropriate weeks from a calendar. (For a sample, see Project Leap Training Manual, Year Two, pages 236-237)

**ORIENTATION TO THE ASSIGNED TEXTBOOK READING**

**OBJECTIVE:** In order to make reading the textbook easier and more efficient, students will go through the text and mark the chapters that are required reading.

**RATIONALE:** Students sometimes find it difficult to do the assigned reading in a timely and efficient manner. One of the first steps in making this easier is to be familiar with the textbook and with the reading requirements.

**PROCEDURES:** Students should bring a pad of post-it papers to class for this activity. Students should get out their post-it pad, the syllabus, and the textbook. For each day in the syllabus, students find the required reading, and mark the corresponding page in the text with a post-it indicating the date by which the reading must be done. The post-it notes should stick out slightly above the pages like bookmarks so that each assignment can be easily found.

Organize the class into groups of three or four. Write the following discussion questions on the board. Each group will discuss them, and at the end of the activity students will summarize group answers for the class.

1. What is the average number of pages you have to read before each class? How much time do you need to set aside to complete the reading? [times may vary based on students' reading speed]
2. How much of the text do you have to read? [all, or just some chapters] Are there any other reading assignments in addition to the text? When do you have to read these?
3. What are some features of the text that can be useful when you do your reading homework? [glossary, index, table of contents, etc.]
4. Why is it important to do the reading by the date that it is due?

## THESIS DEVELOPMENT FOR ARTICLE READING ASSIGNMENTS

**OBJECTIVE:** To help students develop thesis statements for assigned articles.

**RATIONALE:** Students can use this technique to organize ideas about the main purpose of an article. This will help students identify and recall the thesis of the article.

**PROCEDURES:** Students are asked to first read an article, using ROI (Reading From the Outsides In). Second, students are asked to come up with a possible thesis. Each student is responsible for an article and is asked to write his/her possible thesis on the board. Afterwards, students are asked to read the article with this initial thesis in mind. The following steps help students arrive at a correct thesis:

1. Students are asked to identify the who, where, and when (or whatever may be appropriate) of their articles.
2. Students must then identify three main topics that the article is dealing with.
3. These topics are written on the board for evaluation.
4. After coming to an agreement on the three main topics of the article, students must then rank the topics in order of importance.
5. Students write or rewriting the initial thesis statement:
  - a. starting with the when, where, and who
  - b. adding the topics in order of importance
  - c. evaluating the construction of the thesis sentence and its effectiveness.

**NOTE TO STUDY GROUP LEADER:** The evaluation is the most helpful step, especially for those students with problematic thesis development. It is also very important to remind students that there is no right or wrong answer, just variation and clarification.

## CULTURE SCAVENGER HUNT

**OBJECTIVE:** The goal of this group building exercise is to teach cooperative learning, resourcefulness, team work, and problem solving, which are basic study group skills.

**RATIONALE:** Students who work together through fun activities such as a scavenger hunt will apply cooperative learning to more intensive learning applications.

**PROCEDURES:** Students are divided into small groups of approximately 4-5 students. The size of these small groups will depend on the size of the study group. Students are then given five instructions:

1. The students must retrieve 4 items, within the campus, that represent four different cultures on campus;
2. Two students from each group must be blind-folded;
3. Students cannot separate from the group throughout the exercise;
4. Groups are timed to see who finishes first; and
5. Students are asked to discuss how they found the articles, where they found them, and what groups they represent. It is most important, in this final step, to be creative.

(Groups are not given any more details. This way problem solving is left to the discretion of the groups.)

**NOTE TO STUDY GROUP LEADER:** Many variations can be added or deleted from this scavenger hunt. For example, a study group leader may place notes in particular locations with written clues. Instead of breaking the study group into small groups, the study group leader may prefer that everyone stays together and hunts for the study group leader.

## PRESENTATIONS AND QUIZZES

**OBJECTIVE:** 1) To provide students with the opportunity to learn a subject by requiring readings and thorough presentations of a topic to their peers; and 2) To have students examine the process of developing exam questions based on course readings.

**RATIONALE:** Presenting an assignment to peers requires that students become well-versed in reading assignments. In developing test questions, students learn to focus on the readings and see how they relate to course lectures. Students also learn to focus on what is relevant in the course.

**PROCEDURES:** The student presenter is first instructed (see hand-out) to present the main points of a reading assignment, including the thesis of the assignment. Second, the presenter allows time for a short question and answer period. During this time, students who are not presenting are allowed to ask questions which are answered through the guidance of the presenter, but not directly by the presenter. Third, the presenter gives students a short quiz, 5-7 questions (questions should be a combination of true or false, multiple choice and short answer). Finally, the quiz is reviewed by the group and the presentation is evaluated.

**NOTE TO STUDY GROUP LEADER:** This procedure can be done with additional readings, textbook readings, class lectures, etc.

**HANDOUT: PRESENTATIONS**  
Maximum 30 minutes per presentation

- I. Main Points of Assignment - Thesis of chapter, article, or lecture
  - a. Make sure you understand what you are talking about.
  - b. Use visual examples.
  - c. Make sure other students understand what you are talking about.
  - d. Examples of points should be in your own words.
  - e. BE CREATIVE!
  
- II. Questions and Answers
  - a. Give students who are not presenting the option to ask questions.
  - b. You should provide guidance and not the answer.
  - c. Check if examples used during your presentation were understood by all the students.
  
- III. Short Quiz
  - a. Provide the study group leader with 5 notecard questions.
  - b. The same notecard questions should be given to students not presenting. This can be done in any manner - for example, a short written test, short essay questions, group quizzes, etc.
  - c. Be creative with how students are quizzed.
  
- IV. Review Quiz
  - a. Discuss WHY an answer is considered correct or incorrect.
  - b. Give a bonus for the best score.
  
- V. Evaluation of Presentations (allow approximately 5 minutes)
  - a. Was the presentation clear and understandable?
  - b. Did the questions reflect the professor's type of questions?
  - c. Were the examples used in the presentation helpful?
  - d. If presented by a group, were all members involved?

**RESEARCH PROJECT PLANNING EXERCISE**

**OBJECTIVE:** Students will analyze the research assignment and prepare a schedule for each part.

**RATIONALE:** Students need to develop the skills of analyzing an assignment and planning when to do each step in a project.

**PROCEDURES:** Students need to have on hand any handouts and notes about the research assignment. This should include the syllabus since it indicates when the assignment is due. They also need to have their calendars handy. Students should work in groups of two or three. Write the following instructions on the board:

1. Review the information about the project carefully.
2. Work with your group to break the project down into steps. Write a list indicating each step in the proper order. Include steps that you know are necessary but are not specified in the course materials (going to the library, for example).
3. Assign each step a due date. This means the date that the step has to be completed in order to finish the project on time. Hint: start with the final due date and work backwards to the beginning.
4. When each group is finished with the list and dates, a member from each group should write the results on the board. Then the class should look at the lists from each group and compare them. Discuss any differences in the lists and have the study group decide which schedule would be most effective. Students should copy the best schedule and then should enter the steps into their calendars under the appropriate dates.

**NOTE TO STUDY GROUP LEADER:** The study group leader should plan to follow up on each step one meeting prior to the scheduled date by reminding students of the step to be completed and possibly doing some of the work as a group (e.g., going to the library together).



## MOCK EXAMS

**OBJECTIVE:** To prepare students for exams while emphasizing time management.

**RATIONALE:** Students are given a short answer and short essay mock exam, three meetings before a course exam. The mock exam should be more difficult than the actual course exam to relieve the pressure of taking exams. By having students prepare three class meetings before the course exam, students learn time management.

**PROCEDURES:** The mock exam can be produced by both the study group leader and the students. The focus of this exam is on general questions. Questions must integrate at least two related topics and should not include specific definition questions.

For Example:

- a. Subsistence patterns (Hunting and Gathering, Industrialism, Agriculture) have specific traits that help identify cultural values. Please explain why this is the case and give examples for each subsistence pattern.
- b) Why are there egalitarian and hierarchical societies? Please give examples of both, including their functions and the conditions under which they are found.
- c) Why are anthropologists interested in Malinowski's theory about when people use magic?

Finally, the mock exam should be reviewed and each student should be given an opportunity to respond to one of the questions. The emphasis of the mock exam review should not be on the correctness of answers, but rather on the quality of the discussion.

**FAMILY FEUD**

**OBJECTIVE:** To give students a fun way to prepare for exams.

**RATIONALE:** In preparing test questions for this game, students examine the procedure of test question development while becoming better versed in the subject. Students also learn to distinguish between relevant and extraneous information.

**PROCEDURES:**

1. Students choose or are assigned (by another student) a reading assignment or a lecture date. It is important that all readings and lectures are covered by students.
2. From the lecture or reading, each student is required to provide 5 questions on 3 x 5 index cards. Questions must be written on one side of these cards. The date of the lecture, the page number or chapter number, depending on whether the questions are general (from a chapter) or specific (from a particular page), must be included on the front of the card. Answers to the questions must also be provided, on the opposite side of these index cards. Questions can be written as multiple choice, true or false, or short answer.
3. All 3 x 5 index cards are due four meetings before an exam.
4. Students are divided into two different groups and team names are given to each group.
5. Teams are arranged so that each team member is able to discuss answers with other members.

**Rules:**

1. Questions from the index cards are to be read a loud by the study group leader.
2. All questions are fair game, even if a question is read to the team that provided the question.
3. A question, once read, must be answered within 15 seconds or it will go to the opposing team -- they must answer within 10 seconds.
4. Points are given for correct answers. The correctness of an answer can be contested.
5. Books and notes cannot be used, except when contesting the correctness of an answer.

## RESEARCH NOTETAKING WORKSHOP

**OBJECTIVE:** Students will work in groups to practice reading and marking material for research notes.

**RATIONALE:** Students often have problems recognizing useful and important information when they do research reading. This exercise gives students an opportunity to practice this skill in groups and with the study group leader's help.

**PROCEDURES:** During the meeting prior to this workshop, tell students to bring all research materials to class for the next meeting.

Divide the class into groups of three or four, based on similar research topics/materials. Discuss how to read and mark research material by using the following questions to direct the group.

1. What are you looking for? (Students should check assignment handouts to refresh their memories.)
2. What categories of information will be useful? Give examples, if possible from student reading materials, for these categories.
3. How can you mark important information for use later?
4. Would writing notes on index cards be useful? Why or why not? What other methods could be used?

Hand out a sample of reading material marked for the research paper (try to use something that fits the assignment as closely as possible). Discuss the sample with the group briefly; then have group members take about 20 minutes to read their own materials and mark them according to the model. After students read, they should share their work with their groups, discussing why they marked each item and how it fits into their research projects.

**NOTE TO STUDY GROUP LEADER:** As groups are working, walk around the room and see what students are doing, answering questions as they come up. If necessary, make corrections and suggestions as students are marking their material.

HANDOUT: MODEL OF MARKED TEXT

Instructions: Follow this example to mark your research material as you read it.

WAITING TO EXHALE 105

"Do I look like a complete fool to you? Don't answer that. Just let me say this and get it over with. If I ever hear from her parents that they've busted your black ass in their house in bed with their daughter, that'll be the end of it, do you understand me?"

*Attitude toward sex*

"Yes, Ma."

"Tarik, all I'm trying to say is there's a right way to do things, and there's a sleazy way to do things. If you don't know it, it's called discretion."

*Values - discretion*

"I'm always careful, believe me. I don't want to get caught."

"You've already been caught."

"I don't mean like this."

"You just better watch your step and be careful where you put that *thing*."

"I am, Ma."

"Tarik?"

"Yes, Ma?" He was looking at the clock now. Three o'clock had come and gone.

"I hope you don't get any happier about this newly discovered feeling than you obviously have already, 'cause I don't want to see you bringing home any more C's and, Lord, please not another D. Can you promise me you'll try to concentrate on *one* thing at a time?"

*Values - education*

"Yes, Ma."

"And believe me: If somebody ever comes knocking on this door telling me their daughter's pregnant by my son, it'll not only break my heart but it'll mess up everything for you, everything I've tried to do for you. Do you understand what I'm trying to say, Tarik?"

*Attitude toward sex*

"Yes, Ma."

"Do you *hear* what I'm saying?"

"I do, Ma. And I promise. I'll be extra careful, and you'll see, my grades'll improve. I guarantee it."

"Thank you," she said, and got up. "Thank you. Now let's eat."

Tarik and Gloria agreed that the liver and rice and mixed vegetables and biscuits were good. After he emptied the trash, Tarik went upstairs to his room, and Gloria heard him playing his horn. He always left his door open, because he knew she loved to hear him play. She



## PEER RESEARCH GROUPS

**OBJECTIVE:** Students will work in groups to share research data and practice categorization skills.

**RATIONALE:** In the research process, once students have found information it is often difficult for them to organize it. This exercise allows students to help each other in developing and practicing this skill.

**PROCEDURES:** The meeting before the exercise is used, students should be reminded to bring all their research materials to the next meeting.

Arrange students into groups based on their research topics; students with similar topics should be in the same group. There is no specific group size. Based on the research assignment, give the groups 5 minutes to review what categories (types) of information are required. They should refer to the assignment if necessary. Then have students suggest categories and write a list of these possible categories on the board. Point out that it is likely that not all categories will be covered in one paper. Discuss the ideal number of categories for the assignment.

Allow about 15 minutes for groups to work on the research data. Write the following instructions for discussion groups on the board:

1. Give your group an overview of your research by telling them what information you have found and where you found it.
2. Fit the research findings of group members into the appropriate categories. Discuss why each item belongs in a particular category.
3. Take notes on the appropriate categories for your research data.

During the discussion period, walk around and listen in on each group. Answer questions if there are any. If a group is silent, find out why and try to get them talking again.

At the end of the exercise, discuss how the categorized data can be used for the written report. Point out that data in the same category should be written up together in the report. Ask students from each group to give an example of a category and the research data that fits it.

**INTRODUCTION TO THE COMPUTER LAB**

**OBJECTIVE:** Students will go to a computer lab and use a word processor to write a short essay.

**RATIONALE:** Word processing is an important skill students can use in completing their term project. Although many students are familiar with computers, the LEAP student is less likely to have one at home. This exercise can help students feel more comfortable using this important technology and using campus computer facilities.

**PROCEDURES:** At least two weeks prior to the lab visit, contact lab personnel to schedule a one-hour session in a computer lab. It is a good idea to visit the lab and try the following exercise before taking the study group there. Check to find out what kind of disks are necessary.

The meeting before the lab visit, announce the visit, and tell students that they must bring a computer disk to class for the lab. Specify what type of disk the lab requires. Also tell students about the writing assignment for the lab. They should think about it, but do not need to write anything before visiting the lab. Suggestions for writing assignments are:

1. Evaluate a class activity (specify which one when assigning this).
2. Write about your academic skills: Which do you need to improve?
3. Write about the professor: What is your impression of him or her?
4. What is on your mind that distracts you from your studies?

In the computer lab, review computer basics by asking the following questions:

- Who has used a computer before?
- Who has used a campus computer before?

Seat experienced computer users next to inexperienced ones and ask them to help classmates when necessary. Ask students the following questions:

- How should you hold your disk?
- Where do you put it?
- How do you turn on the computer? (skip this if they are already on)
- Where is the "enter" key? The "delete" key? Where are the cursor keys? What are each of these keys for?
- Where is the mouse? What does it do?
- Have you used a word processor before? Which one?
- Which word processor(s) is available in the lab?
- How can you start the word processor?

**HANDOUT: WORD PROCESSING EXERCISE**

**Instructions:** Start the word processor and begin typing the writing assignment. As you work, explore the following underlined word processing features:

Type name, class and date flush right.

Center the title.

Set spacing to double-space.

Indent each paragraph.

Allow each line in a paragraph to wrap around automatically.

Delete mistakes

Save the essay to the disk.

Print a copy of the essay.

Near the end of the lab session, share your experiences working in the lab.

What problems did you encounter?

Did you find any other useful features not mentioned above?

What features did you find most useful?

It is important to visit the lab regularly to be familiar and comfortable with its use, because it is a valuable facility for completing writing assignments such as a term project. You should know the location(s) and hours of the campus computer lab(s) you can use. Write this information below.

LAB NAME	LOCATION	DAYS	HOURS
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

## ORGANIZING A RESEARCH PARAGRAPH

**OBJECTIVE:** Students will combine research data from different sources in paragraphs.

**RATIONALE:** Synthesizing research data from multiple sources is a key academic skill that students need to strengthen.

**PROCEDURES:** Prior to the study group meeting, prepare models of: 1) research notes on a specific research category from two (or more) sources, and 2) a paragraph written using those exact notes. Follow the research assignment as closely as possible; in fact, it is a good idea to go over your samples with the course instructor before making copies for the group. Tell students to bring all their research materials, notes, etc. to class for this exercise.

**Part I—Discussion of the models:** Pass out the handouts of research notes and the paragraph. Direct students' attention to the key elements of each by asking the following questions.

1. What is the category that the notes have in common? How many sources are the notes from? How many notes are used in this paragraph?
2. In the sample paragraph, find and highlight the information from the notes. Which information is quoted? Which is paraphrased? (Define these terms if necessary.)
3. How are the notes documented?
4. What words (transitions) are used to show the relevance and relationship of the various items from the notes?
5. How does the paragraph begin?
6. How does the paragraph end?
7. How much of the paragraph is the student's own analysis or explanation?

On the board, have the group generate a list, similar to the following, of the key elements of a research paper paragraph.

1. Begin with a topic sentence that states the main idea of the paragraph's research findings.



2. Use transitions in the first sentence and throughout the paragraph.
3. Don't overuse quotation or paraphrase; use paraphrases more often than quotations.
4. Document your information according to the professor's specifications.
5. Include your own analysis of the information.
6. Sum up the information in a final statement at the end of the paragraph.

**Part II--Writing practice:** Next, students should choose the most important category for which they have research notes. They should draft a paragraph (or more) in which they present these research findings. As students write, the study group leader should walk around and look at students' writing, suggesting any improvements that can be made (e.g. "You need a transition here.")

**Part III--Sharing:** Students pair up and exchange their paragraphs. They should read their partners' work and discuss it together, using the list on the board as a guide. At the end of the sharing, encourage students to go home and continue this writing work with the other categories for their research paper. These paragraphs presenting research findings can be written even before the introduction, and the paper can be reorganized later.

**HANDOUT #1: SAMPLE RESEARCH NOTES**

**Values: Modesty**

Female modesty is very important in Mexican culture (pg. 94). "Only Tita, whose mission it was to serve her until death, was allowed to be present during this ritual, to see her mother naked."

**Maria**, age 47, born and raised in Mexico, stated: "I agree. Modesty is very important for women. I never even change my clothes in the locker room at the gym; I do it at home."

**Elena**, age 19, born in California (parents were born in Mexico) stated: "It's true for my mother's generation, but not as much for mine. I remember my mother always telling me that the body is private, and I shouldn't let anyone else see it. I, however, feel comfortable being naked with my girlfriends in the locker room."

**Jose**, age 22, born in Mexico, but moved to California when he was 8 said, "I never really thought about it, but I guess that's true. I never saw my mother naked. She never even wore a low cut dress. She and my dad get angry at my sisters when they wear short tops and skirts, so, yeah, I guess that's true."

**HANDOUT #2: SAMPLE PARAGRAPH PRESENTING RESEARCH FINDINGS**  
**[based on Handout #1: Sample Research Notes]**

The next cultural element that is clear in the novel is the importance of female modesty in Mexican culture. On page 94, we can find the following statement: "Only Tita, whose mission it was to serve her until death, was allowed to be present during this ritual, to see her mother naked." The informants seemed to agree that it is a traditional value. Maria stated that she agreed that modesty is very important for women. She never even changes her clothes in the locker room at the gym; she does it at home. Elena said, "It's true for my mother's generation, but not as much for mine. I remember my mother always telling me that the body is private, and I shouldn't let anyone else see it. I, however, feel comfortable being naked with my girlfriends [in the school locker room]." Jose asserted that he never really thought about it, but he thought it was true, because he had never seen his mother naked. She never even wore a low cut dress. His sisters got in trouble when they wore short tops and skirts. From these answers, it can be concluded that the novel is accurate on this point, although the younger generation of Mexican-Americans, represented by Elena and Jose, has lost some of the value of modesty.

## Culture Potluck

**OBJECTIVE:** To establish a sense of pride in cultural diversity.

**RATIONALE:** Students can use this opportunity to explain their cultural diversity by showing off the uniqueness of their foods. In addition, the cultural potluck functions as a treat, as a group building exercise, and as a culturally relativistic learning experience.

**PROCEDURES:** Students are asked to bring a unique dish from their countries. Along with these dishes, they are required to give a short explanation about the dish -- its history and preparation. Students should sign up for the event a week before the actual potluck. This allows students to see what other students are bringing and builds excitement about the potluck.

**NOTE TO STUDY GROUP LEADER:** It is important that every student brings a different dish and that all students get to tell their story. Not all students can bring gourmet meals, so keep this in mind (be flexible!).

**WRITING: PEER CORRECTION**

**OBJECTIVE:** Students will polish their writing assignments by reading a partner's paper and checking for content, using a checklist.

**RATIONALE:** Students need to improve writing skills, but often don't see their own writing problems. By looking at someone else's paper and using a checklist, they can focus on key information and organizational elements. A partner's suggestions for revision can be the basis of an improved paper.

**PROCEDURES:** Students need to complete their writing assignments at least one session before they are due. Two meetings before the assignment due date, pass out the writing checklists (see attached samples) and instruct students to finish writing their reports, making sure the elements on the checklist are included. Students should bring the rough drafts and the checklists to the next study group meeting for the peer correction session.

At the peer correction session, organize the students into pairs. Students should exchange papers and take a few minutes to read their partner's work. The checklist should be used as a guide; partners should check off items as they find them in the paper. For the second part of the peer correction session, partners should discuss each other's papers and point out anything from the checklist that appears to be missing. It may be that an element is in the paper, but not clearly enough stated to be noticed. Students should improve these points by revising to make the point stand out more. At the end of the exercise, announce to the group that missing points should be added and the entire paper rewritten neatly and proofread before handing it in to the course instructor.

**NOTE TO STUDY GROUP LEADER:**

- 1) **How to prepare the checklists:** There are several ways to prepare checklists. One way is to meet with the course instructor and discuss his or her expectations for the assignment, and work out a checklist that the instructor agrees is accurate. Another way is to use the writing assignment handout. If it is sufficiently detailed, a checklist can be constructed from it. This can make a good group activity. In some cases, the instructor may already have a list of grading criteria or something similar, which can be converted to a checklist form. In any case, it is important to go over the checklist with the instructor for accuracy before giving it to the study group.
- 2) **What to do during peer correction:** Students will be busy reading and talking to their partners. During this time, walk around the room and look at what each pair is doing (without disturbing them). Answer any questions that might come up.

**HANDOUT #1: TERM PAPER CHECKLIST**

**Instructions:** Read the paper and make sure it has the following items in order:

**I. INTRODUCTION:**

\_\_\_\_ Name of the book you selected

\_\_\_\_ The culture described

\_\_\_\_ Name of the novelist

\_\_\_\_ His/her ethnic background

\_\_\_\_ His/her "credentials" to describe that culture

\_\_\_\_ State the sources you used to evaluate the cultural material (the names of your informants)

\_\_\_\_ Relevant background information about each informant

\_\_\_\_ age

\_\_\_\_ sex

\_\_\_\_ how long in native culture

\_\_\_\_ how long in U.S.

\_\_\_\_ community in which they live

\_\_\_\_ how well you know them

\_\_\_\_ why you chose them

\_\_\_\_ Research methodology

\_\_\_\_ interview method(s)

\_\_\_\_ interview situation

\_\_\_\_ comfort/honesty of interviewee

\_\_\_\_ State the major topics you will discuss

## II. BODY:

\_\_\_\_\_ At least one paragraph for each major topic

\_\_\_\_\_ begin with an appropriate transition

\_\_\_\_\_ present what the novel says about the topic (include page #)

\_\_\_\_\_ present what informants said about it

\_\_\_\_\_ compare/analyze the responses

\_\_\_\_\_ sum up the information about the major topic

## III. CONCLUSION:

\_\_\_\_\_ Discuss how accurately the novelist presented the culture.

\_\_\_\_\_ Analyze any disagreements between the novel and your informants

**HANDOUT #2: PROJECT CHECKLIST**

**Instructions:** As you read over the project, check each box to note that the information is included.

**I. BEGINNING OF THE REPORT (FIRST 1-2 PARAGRAPHS):**

\_\_\_\_\_ Statement of which project you chose and why

\_\_\_\_\_ Information about your informant (age, etc.)

Research Methodology:

\_\_\_\_\_ Time and circumstances of interview

\_\_\_\_\_ Interviewing methods used (recorder, notes, etc.)

\_\_\_\_\_ Thesis stating key point of your interview results

**II. MAIN PART OF THE REPORT:**

\_\_\_\_\_ At least one paragraph for each interview question.  
Begin by introducing the question, then discuss informant's answer.

**III. END OF THE REPORT:**

\_\_\_\_\_ Summary (1-2 sentences)



**MAGIC AND RITUAL DISCUSSION AND WRITING EXERCISE**

**OBJECTIVE:** Students will continue group-building and explore the concepts of magic and ritual presented in the lecture by applying the information to their own lives through discussion and writing.

**RATIONALE:** This exercise was done late in the quarter, prior to the final examination. At this point, students are under pressure and need to reinforce group dynamics with a group building exercise. In addition, this exercise reinforces and reviews course concepts as well as writing skills.

**PROCEDURES:**

**PART I--DISCUSSION:** Students should be divided into groups of three or four. Write the following questions on the board for group discussion:

1. Give a detailed example of a ritual from your culture. When is it done? Do you know the meaning of the ritual? (Some common rituals: weddings, christenings, funerals, church services, etc.)
2. Give an example of a superstition from your culture. Who believes it? How did you learn about it?
3. Do you consider yourself a superstitious person? Why or why not? How about your parents? Your grandparents?
4. Do you have a good luck charm, lucky number, or other similar lucky item? What is it? Why is it lucky for you?

Students should discuss the questions in their groups for about 10-15 minutes. Then each group should summarize the most interesting points for the rest of the class.

**PART II--TIMED ESSAY.** Next, students will have 30 minutes to write an essay on the following topic:

Write about a ritual or superstition from your culture. Explain it in detail, including how you know about it, your personal experience (if any), who believes in it, when, where, and what happens, and why it is done.

Review timed essay writing guidelines before beginning:

Write at least three paragraphs.

Answer all parts of the question.

Watch the time--allow time for checking your work at the end.

Give as many details as possible.

Stick to what you know--don't choose something you have no experience with.

At the end of 30 minutes, collect the essays. The essays can be read and evaluated in several ways. If time permits, (you need about 20 minutes), the most effective method is for the students to read and evaluate each other's essays using copies of the "Magic and Ritual Essay Evaluation Form." Or, the study group leader can read each essay and check off each item on a copy of the evaluation form, which is then attached to the essay. If the Anthropology instructor is willing to give students extra credit for them, the essays can be given to the instructor.

**HANDOUT: MAGIC AND RITUAL ESSAY EVALUATION FORM**

E= Excellent G= Good F=Fair

	E	G	F	COMMENTS
<b>CONTENT:</b>				
<b>INTRODUCTION:</b>				
Culture introduction _____				
Thesis _____				
<b>BODY:</b>				
Topic sentences _____				
Details and examples _____				
Transitions _____				
<b>CONCLUSION:</b>				
Summary _____				
Comments _____				
<b>LANGUAGE:</b>				
Verbs _____				
Sentences _____				
<b>FORMAT/NEATNESS:</b> _____				

## PART II

### BIOLOGY 155

#### INTRODUCTION TO NATURAL HISTORY OF ANIMALS PROFESSOR BEVERLY KRILOWICZ

#### Biology 155 - Winter 1994: An Overview

##### Course Description

Biology 155 is a lower division course that meets the University's Natural Sciences - Biological Science with a Laboratory - general education requirement. The course uses animal biology as a mechanism to introduce non-majors to the biological sciences. The course begins with a very general discussion of cell biology as it relates to understanding the structure and function of whole animals. It then continues with a brief survey of the major animal groups. Finally, the anatomy (structure) and physiology (function) of the major organ systems is discussed. The major problems that students generally have with this course are: 1) the volume of material that they are expected to master in a 10 week period; and, 2) an innate discomfort with science. I will discuss in the Teaching and Instructional Innovations section which follows the changes made in the course in an attempt to address these issues.

Biology 155 consists of both lecture and laboratory components. The students attend 75 minute lectures twice per week. The lecture sessions are traditional lecture format consisting of the delivery of content material, supported by required readings from the textbook. In addition, students attend a 2 hour and 50 minute laboratory section once per week. Laboratory exercises parallel and illustrate the lecture topics, but also give the students a chance to experience or work with major concepts from lecture. These laboratory sections are often taught by graduate students and are never handled entirely by the faculty member who teaches the lecture class.

The assignments in Biology 155 differ substantially between the lecture and the laboratory sections of the course. The lecture assignments consist of assigned textbook readings, three exams during the quarter, and a final exam. Laboratory assignments consist of a series of group exercises and a major writing assignment. The syllabus which follows provides more details about the assignments.

During Winter quarter 1994, 89 students were enrolled in the Biology 155 course. Four laboratory sections were offered, with 20 to 24 students per laboratory section. I taught the Project LEAP laboratory section, while the other sections were taught by three different biology graduate students. One of these students had received Project LEAP training the previous quarter.

Students enrolled in Biology 155 during Winter Quarter 1994 came from very diverse backgrounds. Some were first time freshman, while others were graduating seniors. The students' majors ranged from child development to electrical engineering. The class was of mixed ethnicity with many language minority students enrolled.

## **Teaching and Instructional Innovations**

### **A. Textbook**

I chose a textbook for use in Biology 155 that is one of the new generation of biology texts referred to as "concepts books." These textbooks aim to reduce the amount of content to the minimum deemed necessary for a reasonable understanding of basic biological principles while focusing on main concepts and unifying themes in biology. These textbooks have chapters that are on average 10 pages long. Although students still complained about the amount of required reading, this represents about a 50% reduction over a more traditional introductory textbook. I found that I could easily cover most chapters in a single lecture, which left the students with the feeling that they had been exposed to what I considered the most important points in each chapter.

### **B. Lecture Outlines**

One of the main stumbling blocks for introductory biology students, and in particular for non-majors, is determining what part of the lecture contains the "main points" (This is what students need to know for the exams.) and what is just "filler" (These are examples or illustrations of the main point that students will not need to know the details of for the exam.). One technique to deal with this problem that I have successfully employed in the introductory course for biology majors is to provide students with outlines of each lecture before the class period. An example of such an outline can be found in the section which follows. The main change that I made in these outlines for Biology 155 was format. I added a left hand margin so students could add their own notes and attempted to leave more space within the outlines so that the hierarchy within the lecture material was evident.

The outlines were used in different ways by the students. Some students put them away and took a complete set of lecture notes during class. They used the outlines to check to see if their notes were complete and/or to see if their hierarchy within the notes corresponded to mine. These students have told me that they need to write things down in order to remember them. Other students listened intently during the lecture and only occasionally took notes. These students tell me that they remember things best if they can actively listen during the lecture and then use the outlines to recall lecture material. Still other students combined these two strategies. They listened and took some notes. Their notes generally consisted of drawings or examples of main points.

### **C. Examinations**

Biology 155 generally requires at most two exams during the quarter and a final exam. The volume of material that must be mastered and retained for exams given so infrequently presents a major obstacle for most students. Consequently, I gave three exams during the quarter and a cumulative final exam. All exams were multiple choice. The students turned in their scantron forms, but kept the exam questions. The exam key was posted immediately following the exam period. This procedure gave students immediate feedback about how they performed on the exams.

### **D. Sensitivity to Language Demands**

I have always felt that teaching introductory biology is a little like teaching a foreign language. Consequently, I was careful to define terms at their first use. (See the following example lecture outline.) For the next several lectures, I would remind the students of the meaning of the term by embedding the definition in the sentence. For example, "Animals are all eukaryotes, organisms that possess a nucleus." When I presented the initial definition of a term, I also generally tried to break the word down for the students. For example, prokaryote means "pro"=before a "karyon"=kernel=nucleus, so these are the organisms that lack a nucleus. This procedure shows students that they may be able to deduce what these words mean without memorizing each one and is a great advantage for students who feel that verbal skills are their strength.

### **E. Shift from "Even More Content" in the Laboratory to Inquiry Based Small Group Exercises**

Biology 155 laboratory had been taught for many years as a demonstration based course. The laboratory exercises required the students to work through a series of displays set out on the laboratory tables. These displays consisted of poster boards with a large amount of reading material and some type of accompanying microscope or whole animal demonstration. These displays were intended to reinforce the information presented in the lecture. Student performance was assessed by a series of practical examinations and quizzes. An example of a typical practical exam question would be: 1) a microscope set up with a slide of adipose tissue displayed, and, 2) an index card reading "Name this tissue. Be specific." This type of student assessment may be appropriate for majors, who are expected to master such material at lower division for use in upper division courses, but seemed inappropriate for non-majors who need a general introduction to science as a process.

As such, I developed a series of small group inquiry based exercises to be piloted in Biology 155 during Winter quarter 1994. An example of one of these exercises is included in the section which follows. My rationale for such a major change in the laboratory was two-fold.

My first reason for changing the laboratory format was that I felt the old course format never exposed the students to the process of scientific investigation. As actually practiced, science is a group effort to solve a problem with no known "correct" answer. The exercises developed for the Project LEAP program allow the students to perform a simple experiment or series of observations as a team and then think through and discuss several thought questions.

Secondly, I felt that students were being assessed in the same ways on the laboratory examinations and the lecture examinations. One set of exams emphasized recognition, while the other tested recall. Consequently, I felt that other skills should be assessed. I feel that these group exercises allow the students to receive credit for creative thinking skills.

Incidentally, I did leave the displays as a component of the laboratory during Winter Quarter 1994. I used the displays as a way of reinforcing the lecture material in a more concrete way than is possible in the formal lecture session.

## **F. Writing Assignment**

### **The Experiment**

A major writing assignment is required of all general education courses taught at CSLA. I decided to have the Biology 155 students conduct a simple experiment and then write a formal journal style article about their study. The students used themselves as subjects and collected simple types of chronobiological data. The pooled class data was then used to write a formal journal style paper. The guidelines for the writing assignment follow the syllabus for Biology 155.

### **Library Assignment**

During one laboratory section, the students were given a tour of the University library and introduced to the various bibliographic resources available. They learned to use the General Science Index and on-line bibliographic data bases such as C-D ROM computers, CARL and LEXIS/NEXIS. Students were required to complete an exercise indicating basic proficiency in utilizing these resources. These basic library skills were essential to the successful completion of their writing assignment since they were required to support/explain their experimental findings with published research findings.

### **Modeling**

Involvement with Project LEAP has opened my eyes to how important adequate modeling is to student success. For example, I feel that the lecture outlines in this course serve as models of good notes. In addition, our modeling of a "good" research paper was essential to successful completion of the writing assignment.

Modeling of this assignment took three forms. First, the Project LEAP language specialist gave specific and detailed directions for writing a scientific paper. (See the handout later in this section.)

Secondly, the laboratory instructors used a "model" paper to show students what we expected in each section of the scientific paper. We only covered one section of the paper per laboratory meeting. Each discussion took no longer than 30 minutes. I made overheads of that section of our model paper and indicated how it fulfilled the criteria given in their handout on scientific papers. In addition, we pointed out things we thought needed improvement. The following section contains copies of these overheads.

Finally, we required drafts of all sections of the scientific paper before the final version was submitted. For example, if we discussed Introductions during one laboratory period, a draft of the students' Introduction was due the following week. These graded drafts were read by the laboratory instructors and detailed comments for improvement for made. The drafts were returned within one week.

### **Final Papers**

The final papers were due the last week of the quarter. The draft of the last section had been returned the previous week and drafts of some sections had been returned as much as one month prior to submission of the final paper.

### **Conclusions**

Overall I felt that Biology 155 ran fairly smoothly during the Project LEAP period. There were all the usual problems of teaching a course for the first time. These problems were compounded by my making major modifications in the way the course was taught. However, I feel that major improvements occurred in two areas. First, the final papers submitted by the students were a real pleasure to read. The energy investment in my careful reading of the drafts and the students' willingness to rewrite paid off several fold. I feel certain that the modeling process improved these papers significantly. Secondly, the switch in the laboratory to small group inquiry based exercises is essential. Although the exercises can all use refinement, having the students perform simple scientific investigations was a major improvement over the laboratory exercises used in previous years.



**Bio 155 - Natural History of Animals**  
**MW 1050-1205 hrs, BioSci room 144**

**Dr. Beverly Krillowicz**  
**BioSci room 262**  
**Office hours M 1215-1315 hrs**  
**T 1100-1200 hrs**

### Winter 1994 Lecture Schedule

Date	Lecture Topic	Reading (Starr)
Jan 3	Course Introduction	
	What is Biology?	Ch. 1
5	Biological Molecules	Ch. 2
10	Cells	Ch. 3
12	First Article Assignment (10 pts.)	TBA
	Cellular Metabolism	Ch. 4
17	Holiday	
19	Cellular Metabolism (con't)	Ch. 6
24	Cell Division: Mitosis and Meiosis	Ch. 7-8
26	Taxonomy	Ch. 17, pgs. 239-240, 245
31	<b>EXAM #1 TO BE GIVEN DURING THE FIRST 30 MINUTES OF CLASS (50 pts.; What is Biology? through Cell Division)</b>	
	Taxonomy (con't)	Ch. 19
Feb 2	Tissues, Organ Systems and Homeostasis	Ch. 23
7	Integration: Nervous Systems	Ch. 30
9	Integration: Endocrines	Ch. 31
14	Feeding and Digestion	Ch. 25
16	Circulation	Ch. 26
21	<b>EXAM #2 TO BE GIVEN DURING THE FIRST 30 MINUTES OF CLASS (50 pts.; Taxonomy through Feeding and Digestion)</b>	
	Gas Exchange	Ch. 28
23	Water Balance and Excretion	Ch. 29
28	Support, Protection and Movement	Ch. 24, 27
Mar 2	Reproduction	Ch. 32
7	Course Evaluation	-
	Finish up any loose ends	-
9	<b>EXAM #3 TO BE GIVEN DURING THE FIRST 30 MINUTES OF CLASS (50 pts.; Circulation through Reproduction)</b>	
	Second Article Assignment (10 pts.)	TBA

**FINAL EXAM (100 pts.) MONDAY, MARCH 14, 1994, 1045 am - 1315 pm.**

**Course Description:** Natural History of Animals is an introductory course in organismal animal biology designed for non-science majors. The course will begin with a very general discussion of cell biology as it relates to understanding the structure and function of whole animals. The course will continue with a brief survey of the

major animal groups. Finally, we will discuss the anatomy (structure) and physiology (function) of the major organ systems found in animals. This last section will take an adaptational approach to understanding how the organ systems are modified in different groups of animals to allow them to meet the challenges of living in their specific environments. Laboratory exercises will parallel and illustrate the lecture topics. This course meets the University Block B - Natural Sciences general education requirement for a biological science with laboratory (B1). IT CANNOT BE APPLIED TOWARD A BIOLOGY/MICROBIOLOGY OR MOST OTHER NATURAL SCIENCE MAJORS/MINORS.

**Required Textbook:** Biology: Concepts and Applications, Cecie Starr, 1991

**Drop Policy:** Please see the schedule of classes for information. No exceptions will be made to the established University deadlines.

**Exams:** Lecture exams will be multiple choice and will require that you supply a Scantron form. THERE WILL BE NO MAKE-UP EXAMS IN THE LECTURE. Exams that are missed with a valid (for example, illness) and verifiable (for example, a signed note from a physician) excuse will be prorated based on the scores received on the other exams. YOU MUST TAKE THE FINAL LECTURE EXAM IN ORDER TO RECEIVE A GRADE IN THE COURSE.

**Policy Regrading Correction of Misgraded Exams:** You have one week from the time that the lecture exams are returned to report misgrading of the scantron forms or discuss appropriateness of alternative answers.

**Grading:** Final grades will be based on the class curve with the following exceptions. You will receive an A if you obtain at least 90% of the total points (486 pts.), and, you will receive an F if you obtain less than 50% of the total points (270 pts.).

150 pts.	3 X lecture exams (50 pts. each)
20 pts.	2 X writing samples (20 pts. each)
100 pts.	final exam (cumulative)
270 pts.	laboratory grade (see laboratory syllabus for breakdown)

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540 pts. total

**Bio 155 - Natural History of Animals Laboratory**  
**BioSci room 273**

**Winter 1994 Laboratory Schedule**

Week	Laboratory Title	Page # (Russell)
1	Course Introduction	-
	Group Building Exercise	-
	Introduction to the Scientific Method (GROUP EXERCISE)	handout
2	Chronobiology: Human Rhythms	handout
	Introduction to Scientific Papers	handout
	Introduction to the Library	handout
3	Holiday	-
	(no lab meetings, but continue the collection of your personal Chronobiology data)	
4	What is an Animal?	6
	What is a Taxonomic Key? (GROUP EXERCISE)	handout
	(PERSONAL CHRONOBIOLOGY DATA DUE)	
	(LIBRARY EXERCISE DUE)	
5	The Architecture of Animals (GROUP EXERCISE)	1/handout
	(FIRST DRAFT OF MATERIALS AND METHODS SECTION DUE)	
	Pick-up tabulated Chronobiology data	
6	Nervous Systems - Information Processing	28
	Homeostasis Exercise (GROUP EXERCISE)	handout
	(FIRST DRAFT OF RESULTS SECTION AND LITERATURE CITED DUE)	
7	Materials and Methods Returned	
	Gathering and Processing Food (GROUP EXERCISE)	24/handout
	(FIRST DRAFT OF INTRODUCTION DUE)	
	Results and Literature Cited returned	
8	Respiration, Circulation and Excretion (GROUP EXERCISE)	20/handout
	(FIRST DRAFT OF DISCUSSION DUE)	
	Introduction returned	
9	Animal Covering, Support and Movement (GROUP EXERCISE)	14/handout
	Discussion returned	
10	Animal Reproduction and Development (GROUP EXERCISE)	47/handout
	(FINAL VERSION OF PAPER DUE)	

**Required textbook:** Studies in Animal Natural History - Laboratory Guide for Biology 155, Mercer Russell, 1987.

**Laboratory Group Exercises:** Available from Bookmart

**Late Work Policy:** Late drafts or papers will have 10% (one grade) deducted per day. All assignments are due at the beginning of the regularly scheduled laboratory period.

**Group Exercises:** Group exercise will be turned in at the end of the laboratory period.

**Grading:**

80 pts. 8 group exercises X 10 pts./exercise  
15 pts. Library exercise  
10 pts. Personal Chronobiology Data  
15 pts. Materials and Methods, draft  
20 pts. Results and Literature Cited, draft  
15 pts. Introduction, draft  
15 pts. Discussion, draft  
100 pts. Final Paper

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270 pts. total

**GUIDELINES FOR WRITING ASSIGNMENT  
CHRONOBIOLOGY: THE STUDY OF BIOLOGICAL RHYTHMS**

**OBJECTIVE:** This handout provided an introduction to and directions for performing the experiment that provided the basis for the major writing assignment required in Biology 155.

**RATIONALE:** A major writing assignment is required of all general education courses taught at CSLA. The chronobiology assignment allowed the students to collect their own circadian rhythm data and then use pooled class data to write a formal scientific paper. The students were exposed to the concepts of experimental design and control by acting as the experimental subjects in this exercise. In addition, by writing a formal scientific paper they were able to see that although scientific writing may differ technically from the writing styles of other disciplines, it also has much in common with these other writing styles.

**PROCEDURES:**

1. The students are given a 30 minute introduction to circadian rhythms and then collect their first data point during their regularly scheduled laboratory period. They then have two weeks to collect the remaining eleven data points. The individual data sets are turned in to the laboratory instructor, who compiles the class data set. The class data set is handed out to each student and is used in preparing the scientific paper.
2. The students are given a handout with directions for writing a scientific paper. (See sections to follow.) We then choose as a "model paper", a paper submitted by one our Biology majors in the upper division writing course. We point out what is good about this paper (How does it meet the criteria specified in the handout?), as well as what can be improved. We only discuss one of the four sections per laboratory period so that the details are not overwhelming. (See sections to follow for examples of the overheads that we used.) The students then write a draft of that section of their scientific paper and turn it in the following laboratory period. The draft is read by the laboratory instructor and returned with detailed, specific comments regarding improvement.
3. The students spend the greater portion of one laboratory period in the library learning to use the resources that they will need to find literature to support their research findings. (See sections to follow.)
4. A final paper, incorporating the changes suggested during the above drafting process, is submitted during the final laboratory meeting. (See sample paper submitted by a Project LEAP student that received full credit.)

**HANDOUT: CHRONOBIOLOGY- THE STUDY OF BIOLOGICAL RHYTHMS**

## Introduction

All organisms exhibit some type of circadian ("about a day") rhythmicity of physiological processes and behavior. An example of a rhythm in a body function is the circadian alteration in body temperature. For animals like monkeys that regulate their body temperatures and are normally active during the day, the body temperature is lowest during the middle of the night and highest during the middle of the day (Fig. 1A). This rhythm in body temperature is partly due to the associated rhythm in activity, a behavior (Fig. 1B). A monkey normally increases its muscular movements during the day while it is foraging for food, grooming its young, etc.. The increase in movement requires energy and results in the production of heat, which leads to an increase in body temperature. At night, the monkey normally sleeps and so decreases its muscular movements. Less energy is utilized by the monkey while it sleeps and so the heat production declines and the body temperature decreases. However, the circadian fluctuation in body temperature persists even if the activity rhythm is prevented (Fig. 1C). For example, if the monkey is kept quietly awake for 24 hours, the body temperature rhythm is still expressed. This result suggests that there is an endogenous rhythm of body temperature that is independent of the normal rest-activity cycle. However, notice that the difference between the day and the night body temperatures (i.e. the amplitude of the rhythm) is not as great under constant rest conditions as it is when the monkey is allowed to express its normal rest-activity pattern. On the other hand, the length of time required to complete the body temperature cycle (i.e. the period of the rhythm) remains unchanged. The daily or circadian rhythms exhibited by mammals are under the control of a small region of the brain called the superchiasmatic nucleus (SCN).

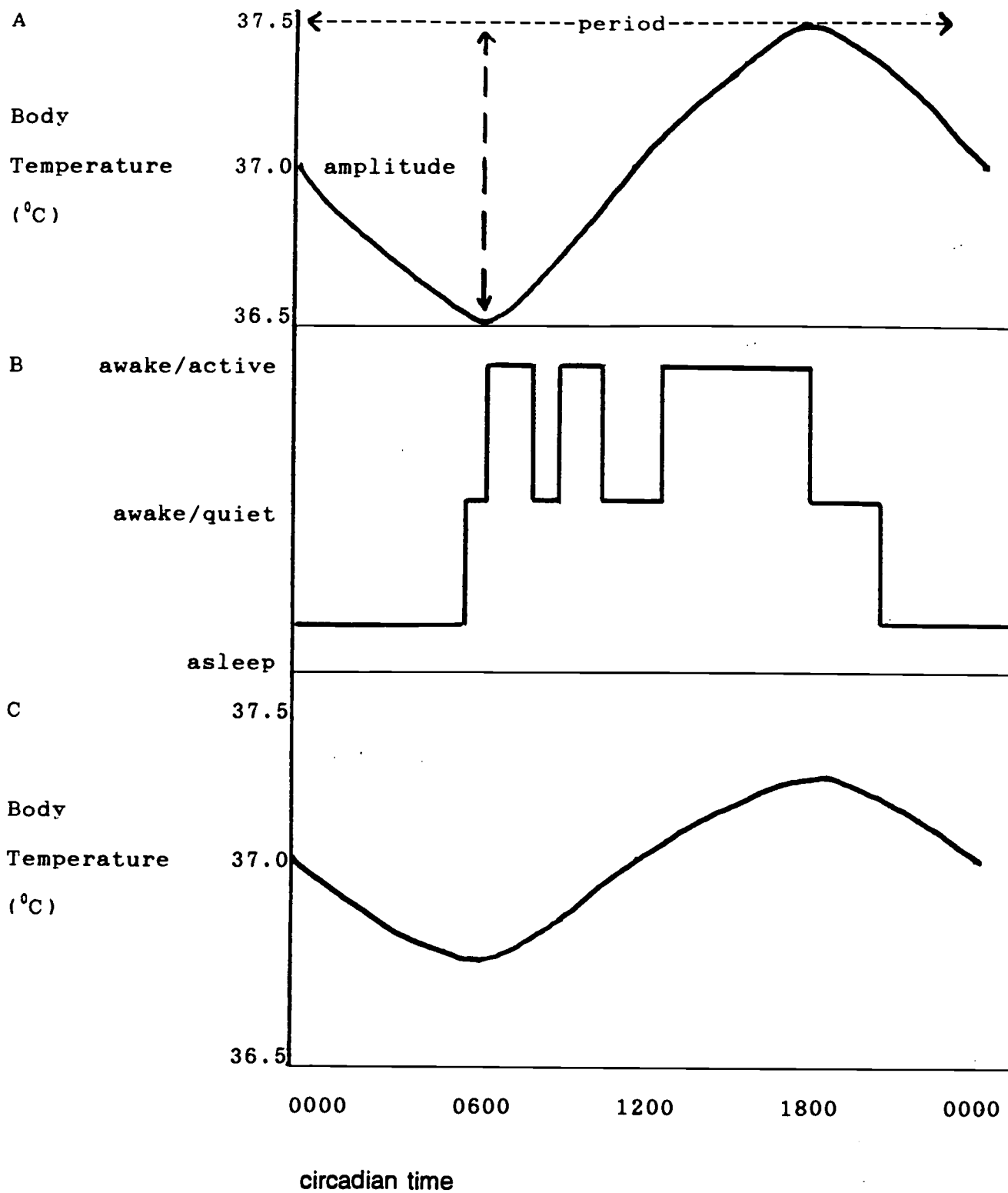


Figure 1. Rectal temperature (A) and activity (B) of a monkey throughout a day when the animal is allowed to engage in normal activities. (C) Rectal temperature of the same monkey when kept awake but quiet for 24 hours.

Many organisms also exhibit annual rhythms in body functions and behavior. For example, small mammals often have circannual ("about a year") changes in reproductive function and behavior. Many species of alpine ground squirrels mate in the spring following the snow melt, the young are born in the early summer and then reproductive behavior ceases during the fall and winter. Underlying these seasonal changes in behavior is a circannual cycle in the function of the reproductive organs which is due to cyclical changes in the secretion of the reproductive hormones. These annual cycles in reproductive function and behavior are believed to be regulated by a region of the brain known as the pineal gland.

In this laboratory exercise you will investigate your own daily body rhythms. Specifically, you will test the hypothesis that you reach a nadir (low point) of biological function during your normal rest period and a zenith (high point) of biological function during your normal activity period.

#### Procedure

The functions that have been chosen for you to monitor during this exercise are easily measured with nothing more than the second hand on a watch and a number table (Appendix 1). You will be asked to take three different measures of body function at TWELVE different circadian time points. You will have TWO WEEKS to collect all of the data. The following points should be kept in mind while conducting your experiment:

1. Only collect data on days when you go to bed or awaken at your normal times. (Remember the monkey experiments discussed above!!!). For example, if you normally awaken at 0700 (7 am) and go to sleep at 1100 (11 pm), you should only collect data on days when you awaken between 0630 and 0730 hrs or go to sleep between 1030 and 1130 hrs. Let's say that you awaken at 0630 on Friday morning and are going to be home until afternoon. You could plan to collect your 0800, 1000 and 1200 (noon) data points on this day. Other time points could be collected on other days, as long as you are on your "normal" schedule.
2. Collect data from your normal sleep period without getting out of bed. Have your watch, number table and data collection form next to the bed and perform your measurements with as little movement as possible.



3. Always conduct the function tests in the same order and perform them as indicated below. For example, if your first data collection session begins by recording pulse rate, then always begin data collection with the pulse rate measurement.
4. Record the time that you normally awaken and go to bed in Appendix 2. Do not worry if you have an altered rest/activity schedule due to shift work, a new baby in the house, etc. You will make an interesting comparison for the "normal" daytime activity/nighttime sleep pattern exhibited by most members of the class. However, it is important that we know that your rest/activity cycle differs from the norm.
5. Record your data in Appendix 2. A copy of this sheet should be turned in to your laboratory instructor by the date indicated in your laboratory syllabus. The class data will be tabulated and a copy made available for use in preparation of your scientific paper.

#### Function tests

##### Pulse Measurement:

Place your index and middle finger on the inside of your wrist at the base of your thumb or over the carotid artery in your neck. Count the pulse for a full minute. Record your pulse in the chart found in Appendix 2.

##### Eye-Hand Coordination:

Touch the index finger of your dominant hand (the one that you write with) with your thumb and count "1". Touch the thumb to your middle finger and count "2". Touch the thumb to your ring finger and count "3". Touch the thumb to your little finger and count "4". Now traveling backward, touch your thumb to your ring finger and count "5". Touch the thumb to your middle finger and count "6" and to the index finger and count "7". Keep repeating the procedure until you reach "25". Your thumb should rest on the index finger when you reach "25". Repeat this exercise until you are comfortable with the movements and your thumb comes to rest on the index finger when you reach "25".

Wait 15 minutes after completion of the above "training session" and then time how long it takes you to complete the count to "25". If you make a mistake, start over. Record: a) how long it takes you to complete a correct count, and, b) how many times you had to start over.

Adding Speed:

Use the number table found in Appendix 1. Place a piece of paper at the bottom of the second row of numbers. Add the first and second numbers in the left hand column of numbers ( $8 + 0 = 8$ ). Move the paper down one row of numbers. Add the second and third numbers in the left hand column of numbers ( $0 + 1 = 1$ ). Continue down the left hand column of numbers adding the third and fourth numbers, fourth and fifth numbers, etc. until you have added the complete column of numbers. Record the time required to add a complete column of numbers. Use a new column of numbers for each circadian time point.

Appendix 1 - Number Table

8	3	4	7	4	2	9	2	2	6	2	8
0	3	9	2	3	1	2	2	8	2	9	3
1	1	4	5	1	3	5	1	7	4	5	2
8	9	8	1	3	7	5	3	6	2	1	3
3	2	1	6	7	0	8	6	5	2	4	9
4	1	4	1	9	1	0	3	9	5	9	0
9	2	5	9	8	0	5	4	8	5	4	8
4	4	3	7	0	6	1	7	4	1	8	0
6	0	7	7	0	7	4	3	4	5	4	5
1	8	8	8	5	5	5	6	1	5	5	9
9	5	9	7	7	9	9	9	4	3	2	7
1	3	9	4	8	2	4	8	9	3	9	0
3	9	8	2	8	8	7	0	2	1	3	2
3	2	7	3	6	2	9	7	2	2	4	3
2	2	3	4	4	7	7	7	4	2	7	1
6	9	6	9	4	1	1	0	8	0	1	5
3	4	1	7	6	4	2	2	7	1	7	0
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Appendix 2 - Circadian influences on selected body functions.

Name \_\_\_\_\_  
 Normal time for awakening \_\_\_\_\_  
 Normal bedtime \_\_\_\_\_

Date	Time	Pulse (beats/min)	Eye-Hand Coordination		Adding Speed (sec)
			time for correct count (sec)	number of trials with mistakes	
	0000 (midnight)				
	0200				
	0400				
	0600				
	0800				
	1000				
	1200 (noon)				
	1400				
	1600				
	1800				
	2000				
	2200				

Main Objective: Explain how your study fits into the context of Biology. Give the reader a background.

- (1-2) Two important generalizations about mate selection. Follow with supporting points from the literature.
- should need only 2-3 paragraphs.

INTRODUCTION

1 Many factors determine the way in which different species select a mate. In some animals, such as the Mallard, females choose their mate almost exclusively by good appearance, attentiveness, displays and aggressiveness of the male (Weidmann 1999). In another species, the Mormon cricket, the male chooses the mating partner and discriminates among females by their capability of producing offspring (Gwynne 1991). Variables studied in Homo sapiens mating are: age, ethnic origin, religion, socioeconomic status, intellectual and cognitive variables, personality traits, social attitudes, and physical appearance (Buss 1985). Buss has shown that humans tend to mate with someone who is similar in many of these variables.

Supporting points from the literature. All points referenced!

(name date should appear in

2 Darwin called intersexual selection "female choice," because he observed that throughout the animal world females tend to be more discriminating in their choice of mates than males. Buss and Barnes (1985) showed how males and females rated characteristics commonly sought in a mate. One of the most striking differences included physical attractiveness. Men ranked attractiveness third, while women ranked it a sixth, suggesting that women more often seek partners according to attributes other than physical appearance. In contrast, Thissen (1979) and Gregg (1980) (as cited by Buss 1985) proposed a tendency for individuals to seek mates with phenotypic characteristics similar to their own. These similar characteristics reflect similar genetic material and therefore increase the probability of the couple's offspring relating to each parent by more than 50%, thus enhancing the parents genetic reproduction.

Lit. Cited section

Supporting points with references.

In this study, the class made observations to determine the significance of physical appearance in the mating selection of H. sapiens.

Purpose of study → state the hypothesis you will test.

Main Objective: To give the reader enough detail about your procedure that they are able to repeat your experiment.

Main Goal of study

### MATERIALS AND METHODS

On September 30, 1993, 10 groups, each group consisting of two people, made observations of unusual versus common appearances of students on the campus of

California State University at Los Angeles. Some characteristics considered to be unusual were: dreadlocks, colored hair, shaved heads, mohawks, and men with long hair. Furthermore it was a hot day so clothing considered unusual included: raincoats, formal wear, ties, ethnic clothing, high heels, any hat other than a baseball

How define unusual vs common

Details of the observation period

cap, and any warm clothing. For a fifteen minute period, from 1045 until 1100, each group recorded the sex and appearance of all the people they saw. During the next fifteen minutes, from 1100-1115, each group observed only male-female pairs. For each pair, we recorded the appearance of each sex. We calculated a chi-square analysis of expected pairs from the observed values of individuals. We determined the probability of each type of pair by multiplying the frequency of one type of individual in the general population times the frequency of the other individual making up the pair. We then multiplied this probability by the total number of pairs to get the number expected pairs.

Detail of statistical analysis

NOTE: Try to stay away from "we" and "I".

# Main Objective: describe your data

Two parts -

1. A written description of the results
2. A visual presentation of the results

ex. graphs  
tables  
photographs

## 1. Written Presentation - RESULTS

Observations of 766 males and 778 females showed that there were more common individuals than unusual individuals on campus: 78.6% of males and 82.3% of females were common (Table 1). Of the 232 male-female pairs observed, most were in the common male-common female category as we expected (Table 2). A difference between the expected numbers and the observed numbers was apparent. Using chi-square goodness of fit test, the calculated chi-square value was 20.5 (DF = 3,  $p < 0.05$ , accept null hypothesis if  $\chi^2 \leq 7.8$ ). The high chi-square value suggested that a significant difference existed between the expected numbers of pairs if members were selected at random and the observed numbers of pairs seen on CSULA campus (Table 2).

Reference to visual presentation of same result.

verbal statement of result

verbal statement of statistical result

NOTE: you should make sure that the reader understands the basic results from the verbal presentation, without looking at the visual presentation.

## 2. Visual Presentation - headings/labels

headings/labels

	COMMON	UNUSUAL	TOTALS
<b>number</b> MALES	602	164	766
% of total males	78.6	21.4	100
<b>number</b> FEMALES	640	138	778
% of total females	82.3	17.7	100
TOTALS	1242	302	1544

explain what #5 are

# Tables, Graphs, Figures

TABLE 1. General survey of CSULA students.

Title

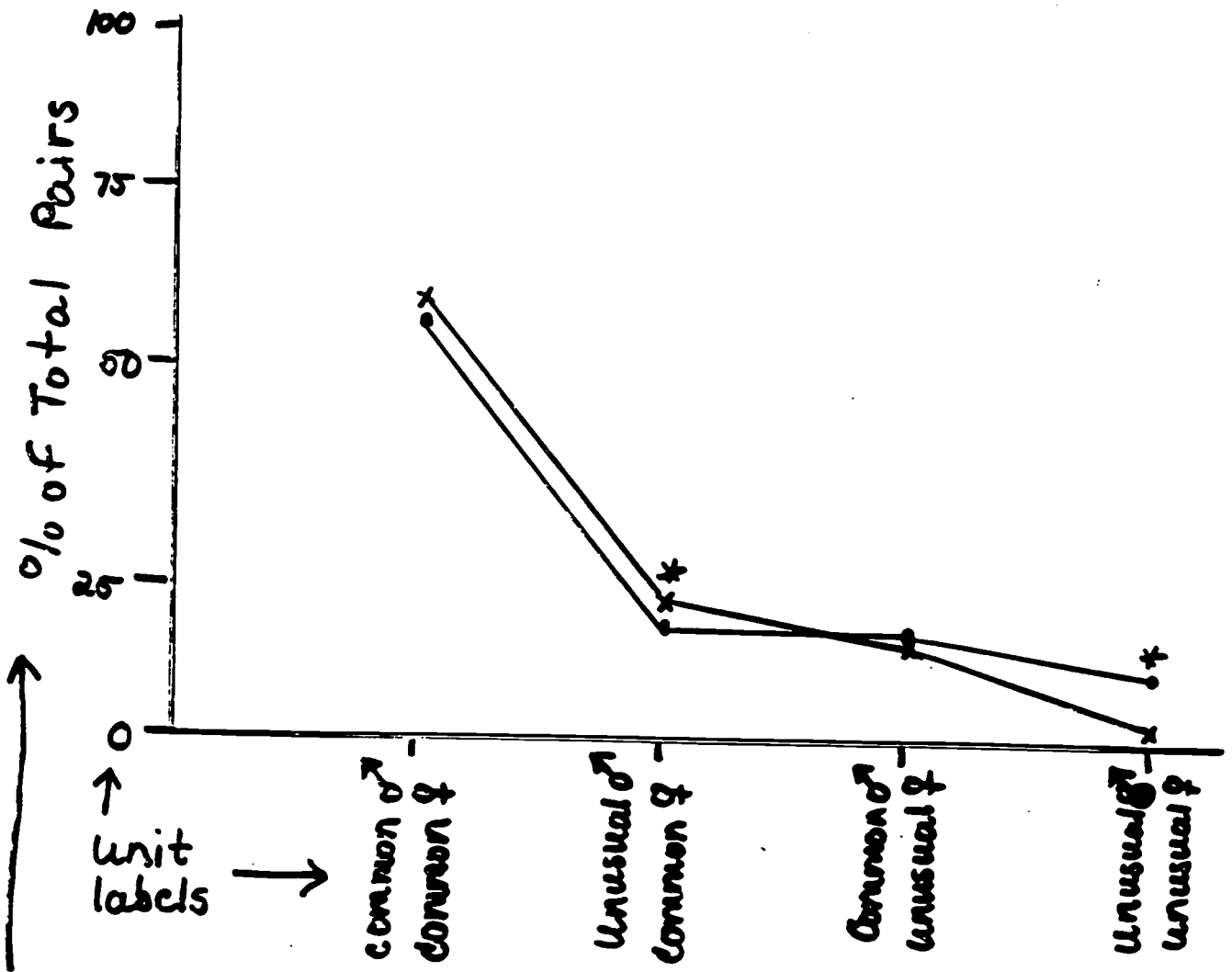
Pair Type	NUMBER OF PAIRS		% OF TOTAL PAIRS	
	OBSERVED	EXPECTED	OBSERVED	EXPECTED
COMMON MALE	142	150	61.2	64.7
COMMON FEMALE				
UNUSUAL MALE	34	41	14.6 *	17.6
COMMON FEMALE				
COMMON MALE	34	32	14.6	13.9
UNUSUAL FEMALE				
UNUSUAL MALE	22	9	9.5 *	3.8
UNUSUAL FEMALE				
TOTALS	232	232	99.9	100

Explain symbol in legend

TABLE 2. Male-female pairs survey of CSULA students. \* Significantly different from expected at  $P < 0.05$ .

NOTE: The reader should understand the results without reference to the verbal description.





Axes labels

Pair Types

Figure 1.

Male-Female pair survey of CSULA students. o, observed values; x, expected values; \* observed and expected value differ at  $P < 0.05$ .

Figure #

Figure legend with symbols used in graph defined.

NOTE: Choose either a graph or table, do not present data in more than 1 way.

Main Objective: Interpret your results and explain how they relate to the existing literature on this topic.

DISCUSSION

In this study, the results of a chi-square test show that there was an association between appearance and the probability of mating. Assortative mating, defined as the coupling of individuals based on their similarity on one or more characteristics, is the most common deviation from random mating in Western societies (Buss 1985). Unusual females and males were much more likely to mate than their random probability projected. This finding is in accord with Thiessen (1979) and Gregg (1980) (as cited by Buss 1985) who stated that there is a tendency for individuals to seek mates with similar characteristics. Furthermore, one deviation from randomness

general result from the study definition from litera.

specific result from study

Citation, etc.

result predicted by prior research "like mates with like"



Mating of opposites not seen.

never reliably demonstrated is the tendency of opposites to marry or mate (Buss 1985).

A common female was less likely to choose an unusual male (Table 3). } result

interpretation (no references so authors idea)

Feasibly, "clean cut" and common looking males may be more likely candidates for employment. We observed many more common people than unusual people. Employers in higher paying careers may look for more common looking males because the public may be more likely to accept them. Therefore common males may be more likely to succeed in business. Buss (1985) supported this theory in studies that supported the fact that women valued the characteristic of good earning capacity much more than males did. This supported Darwin's theory that females are more discriminating in choosing a partner.

} support from lit.

result interpretation

The observed common male-common female pairs and common male-unusual female pairs were both close to their expected values. The mating in these cases could be due to random probability and appearance may not have had an effect.

errors and possible improvements

This study could have been more accurate by changing the method of obtaining data. Instead of having two people observe individuals for fifteen minutes and then pairs for fifteen minutes, the two people should observe all couples for thirty minutes. One person could record the appearance of the individuals while the other person records the pair combination. Furthermore, we would need to question each pair to determine whether or not they were actually a couple and if so was it their mates' physical appearance that originally brought them together.

Final conclusion

The findings reported in this paper suggest that physical appearance does have a significant influence on mating selection in H. sapiens. Individuals most often pair up with someone like themselves. In the matings where the individuals were not alike, the female would tend to seek a male of a higher standard.



# Literature Cited

Alphabetical Order  
and numbered

1. Buss, D. M. Human mate selection. Amer. Sci. 73: 47-51, 1985.
2. Gwynne, D. T. Sexual Difference Theory: Mormon Crickets show role reversal in mate choice. Science 213: 779-780, 1981.
3. Thiessen, D. D. and B. Gregg. Human Assortative mating and genetic equilibrium: An evolutionary perspective. Ethol. and Sociobiol. 1: 111-14 1980.

ex. <sub>3</sub>      Buss, D. M.      Human mate selection.

last name, initials      Article title / lower case except first word

Amer. Sci.      73: 47-51, 1985.

Journal title / underline or use italics      ↑      ↓      ↑

vol      pages      year

Need 5 references / 1 book O.K.

## LECTURE OUTLINES

**OBJECTIVE:**

1. To provide students with a clear idea of where the lectures are leading, both before and during class.
2. To reduce the anxiety associated with deciding whether to "listen to and understand the lecture" or "write everything down that the instructor is saying".
3. To model good lecture notes.

**RATIONALE:** Students in introductory science courses are routinely overwhelmed by the volume of material that is presented in a single lecture. They often are unable to tell which parts of the lecture are the major points and which are simply examples or illustrations of these major points. Outlines of the lectures show them the main points and provide models of how to approach note taking in future courses. In addition, the students feel more free to actively participate in lecture because they know that "I can always find the details in the outline".

**PROCEDURES:** The instructor provides outlines of the lectures prior to each class period so that they are available to the students during the lecture.

BEST COPY AVAILABLE

137

141

## HANDOUT: LECTURE OUTLINE FOR TAXONOMY

### I. Definitions:

- A. taxonomy = science of classification of organisms; older schemes were often without regard to evolutionary relationships among organisms
- B. phylogeny = science that examines the historical (evolutionary) relationships between organisms; most taxonomic schemes used today will be based on phylogeny

### II. What kinds of information can be used to study phylogeny?:

- A. anatomy = structure of modern day organisms
  - 1. adult structures
  - 2. embryonic development
- B. physiology = how modern organisms function
- C. geologic record = fossils
  - 1. when did modern day organisms first appear?
  - 2. what did extinct forms look like?
- D. similarity in gene sequences
- E. other biochemical information

### III. Taxonomic Hierarchy:

- A. hierarchy -  
Kingdom

Phylum (zoology)  
Division (Botany)

Class

Order

Family

Genus

few common  
traits

more common  
traits

Species

NOTE: species is the only biologically defined taxon!!!

- B. species = group of actually or potentially interbreeding individuals that are reproductively isolated from other organisms; in order to name a species it must have two "names" -

- Genus species - underlined  
- Genus name capitalized  
- species name lower case  
- usually Latin

IV. The Five Kingdom System:

A. Kingdom Monera (single) or Prokaryotae (before nucleus) -

1. characteristics -
  - a. cells lack nuclei
  - b. cells lack membrane-bound organelles
  - c. cells lack cytoskeleton
  - d. use special type of cellular reproduction called binary fission
2. examples = bacteria

B. Kingdom Protista (first) -

1. characteristics - any organism that does not fit into the other four kingdoms
2. three broad groups -
  - a. plant-like protista - autotrophs = producers (ex. photosynthetic)
  - b. fungal-like protista - decomposers = consumers
  - c. animal-like protista (Protozoa) - injectors = consumers

NOTE: b-c are also called heterotrophs

C. Kingdom Fungi -

1. characteristics -
  - a. basic structural unit is the hyphae (file of cells) that branch to form mats called mycelia
  - b. cells are haploid (1n)
  - c. cell walls made of chitin
  - d. heterotrophs who feed by extra cellular digestion followed by absorption - saprobes feed on non-living organic materials  
- parasites feed on living organic material
2. examples - mushrooms/bread mold

D. Kingdom Plantae -

1. characteristics -

- a. multicellular
- b. usually photosynthetic autotrophs
- c. cell walls of cellulose
- d. alternation of diploid and haploid generations

2. examples - fern/oak tree

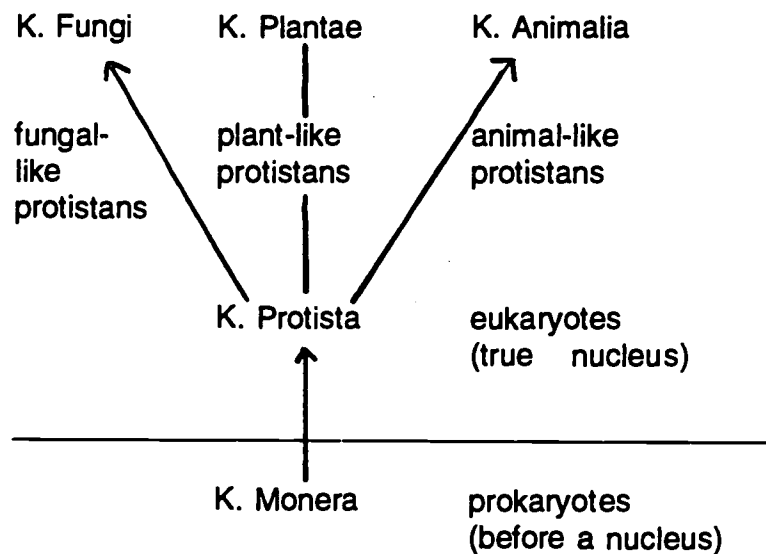
E. Kingdom Animalia -

1. characteristics -

- a. multicellular
- b. diploid
- c. heterotrophs who feed by ingestion
- d. no cell walls
- e. develop from two different haploid gametes (sperm, egg)

2. examples - sea stars/humans

V. A Simple Possible Evolutionary Tree for the Five Kingdoms:



VI. Animal-like Protistsans = Protozoa (first animals):

A. characteristics -

- 1. diploid



2. heterotrophs (injectors)

3. no cell walls

4. unicellular

5. generally asexual



thus, not  
animals

B. examples -

1. amoebas -

- move by pseudopods
- very simple cells

2. flagellates -

- move by flagella
- simple cells

3. ciliates -

- move by cilia
- very complex cells

VII. Kingdom Animalia:

NOTE: \* indicates characteristic unique to phylum or class

A. Phylum Porifera - pore bearer

1. sessile = non-motile
2. no true tissues - reaggregation possible\*
3. no symmetry - no plane through body divides it into equal halves\*
4. skeleton of spicules\*
5. filter feeders - water movement caused by beating of flagella on collar cells\* , water flows into pores in body wall, water enters spongocoel, out osculum, bacteria, etc. in water stream caught on collars and engulfed

B. Phylum Cnidaria - named for special stinging cells (cnidocytes)

1. alternate between sessile polyp and free-swimming medusa\*
2. radial symmetry = many planes through body produce equal halves
3. true tissues
4. cnidocytes with nematocysts = stinging structures for prey capture\*
5. some extracellular digestion within gastrovascular cavity (GVC), note only one opening to/from cavity
6. examples = jellyfish/sea anemones

C. Phylum Platyhelminthes - flat worms

1. cephalization = concentration of sense organs/neurons at front end of animal
2. bilateral symmetry = only one plane through body produces equal halves
3. organ level (example = GVC), some organ system level of organization
4. very thin because no respiratory/circulatory systems
5. examples - tapeworms/flukes

D. Phylum Nematoda - round worms

1. complete gut with mouth and anus, allows more complete food processing
2. first body cavity = pseudocoelom\*, allows independent movement of gut and body wall
3. organ system level of organization
4. examples = pinworms/Trichinella

E. Phylum Annelida - tiny rings = segmented worms

1. metamerism\* = segmentation, repetition of organs in each body segment

- 2. organ system level of organization
  - 3. true coelom
  - 4. bilateral symmetry
  - 5. complete gut
  - 6. examples - earthworms/leeches
- } from here  
on unless  
mentioned  
otherwise

F. Phylum Arthropoda - jointed foot

- 1. jointed appendages\*
- 2. segmentation, but segments are highly modified and fused
- 3. chitinous exoskeleton\* - supports against gravity/prevents water loss
- 4. examples - insects/spiders/shrimp

G. Phylum Mollusca -

- 1. no segmentation
- 2. foot\* = muscular organ for locomotion
- 3. mantle\* = flap of tissue that covers visceral mass, houses gills, secretes shells
- 4. examples = squid/clams/snails

H. Phylum Echinodermata - spiny skin

- 1. radial symmetry as adults
- 2. sessile, marine animals
- 3. test\* = endoskeleton
- 4. water vascular system\* with tube feet\* for feeding, locomotion, respiration
- 5. examples - sea stars/sea urchins

I. Phylum Chordata/Subphylum Vertebrata -

1. characteristics - internal skeleton of bone or cartilage used for -
  - a. attachment of muscles
  - b. protection of soft tissues, particularly nervous tissue
  - c. mineral reserve (calcium and phosphate)
  
2. classes -
  - a. Agnatha - (without jaws)
    - jawless
    - cartilagenous skeletons
    - lampreys/hagfish
  
  - b. Chondrichthyes - (cartilage fish)
    - cartilaginous skeletons
    - jaws
    - sharks/skates/rays
  
  - c. Osteichthyes - (bony fish)
    - bony skeleton
    - jaws
    - trout/tuna
  
  - d. Amphibia - (two lives)
    - metamorphosis between aquatic larval form and semi-terrestrial adult form
    - skeleton changes to accomodate life on land
    - lungs develop
    - fertilization requires water
    - frogs/salamanders
  
  - e. Reptilia - first completely terrestrial vertebrates
    - internal fertilization to protect gametes
    - specialized egg to protect embryo
    - scales/subcutaneous fat to reduce water loss
    - further lung development
    - further limb movements
    - lizards/snakes
  
  - f. Aves - birds, adaptations are for flight
    - feathers from scales
    - wings from forelimbs
    - hollow bones to lighten skeleton
    - toothless beak
    - retain specialized egg

- g. Mammalia - named for mammary glands
  - hair
  - mammary glands for milk production
  - complete limb movement under body for more efficient locomotion
  - brain development leads to more learning and less stereo typed behavior

**LABORATORY GROUP EXERCISES**

**OBJECTIVE:** To give the students a chance to perform inquiry based learning exercises in a small group setting.

**RATIONALE:** Science is more than just a body of facts. It is a formal process used by scientists to explain and understand natural phenomena. The traditional introductory science course relies heavily on learning facts and performing laboratory exercises with "correct" outcomes. However, science is actually a process of discovery with no "correct" answer. These weekly exercises provide the students with a chance to perform simple exercises that develop their observational skills. The thought questions that follow each exercise require that the students think about their results and talk within the group to arrive at an answer. A range of answers is considered "correct." A "correct" answer is based on the experimental observations and is accompanied by a well-explained rationale.

**PROCEDURES:** A short introduction to each exercise is given at the beginning of each laboratory period. The students then break into their groups (3-4 students per group) and perform the exercise. Finally, the groups discuss possible answers to the questions that accompany the exercises. The laboratory instructor generally needs to be aware of the conversations taking place within the individual groups and, for many of the more complex questions, to be prepared to help guide the discussions. I tend to circulate freely in the classroom and step in when it appears that I am needed. If possible, I try to "guide the discussion" by use of a series of simple questions that lead the students through a certain thought sequence. If a member of the group "jumps ahead", I ask them to take the lead in helping their group members through the thought process that allowed them to reach a conclusion.

**HANDOUT: HOMEOSTASIS EXERCISE****Introduction**

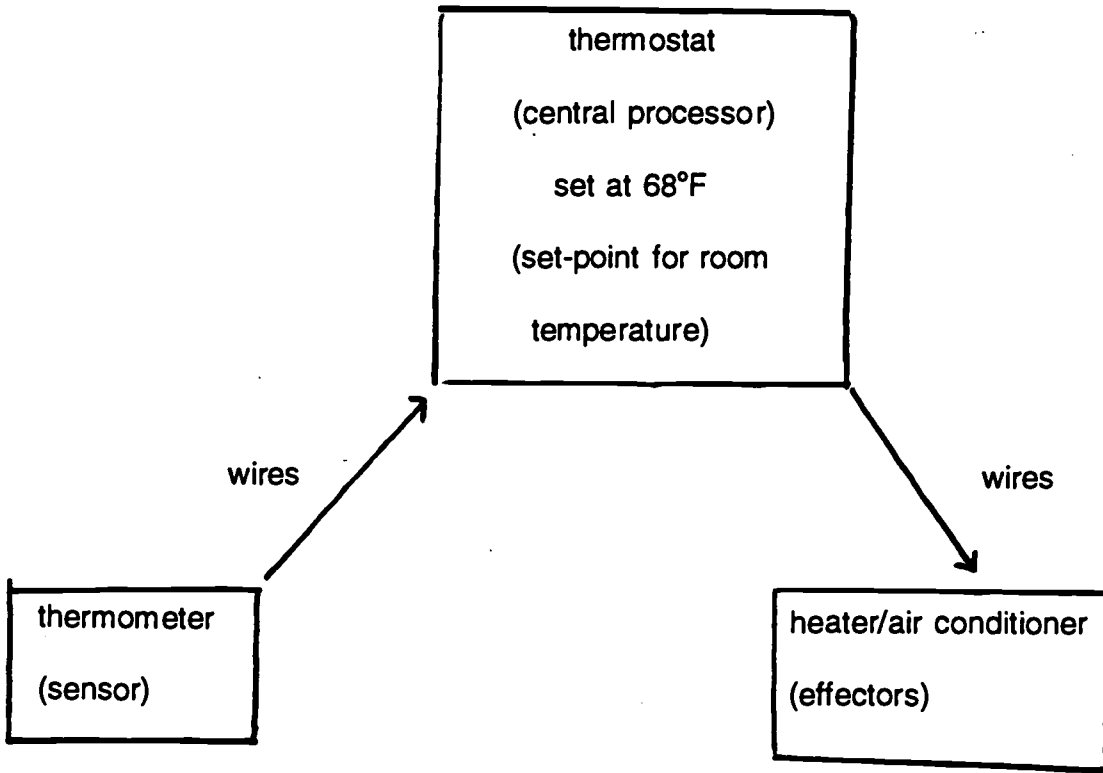
Homeostasis is the maintenance of constant internal conditions. The two integrative or regulatory systems of the body, the endocrine and the nervous systems, are responsible for maintenance of homeostasis. Homeostasis is usually achieved by means of negative feedback regulation.

In negative feedback regulation, any change in a regulated parameter will be opposed by the control system. For example, when you have the climate control system in your house turned on, the temperature of your house is regulated by negative feedback (Figure 1). Let's say that you set the thermostat (the central processor) at 68°F. The thermostat receives information from a thermometer (the sensor) about the actual room temperature. If there is a difference (an error signal) between the actual temperature and the desired temperature, then the thermostat detects the difference and initiates changes that will return the room temperature to the desired value. The thermostat turns on the heater if the room is too cold and the air conditioner if the room is too hot. The heater and the air conditioner could also be called effectors. Of course in this example, the room temperature is the regulated parameter.

The regulation of your body temperature is similar to the regulation of the temperature of your house (Figure 2). In this case, a part of your brain called the hypothalamus acts as the central processor where the desired value for your body temperature is set at 38°C. The hypothalamus receives information from sensory receptors located throughout your skin, internal organs and brain. These receptors are specialized for the reception of information about temperature. If an error signal exists between the desired value of body temperature and the actual value, then the hypothalamus is able to activate effectors. These effectors are the sweat glands and the skeletal muscles. When your body temperature is too low, the skeletal muscles will

begin to shiver and bring body temperature back to normal. When your body temperature is too high, the sweat glands will cool your body.

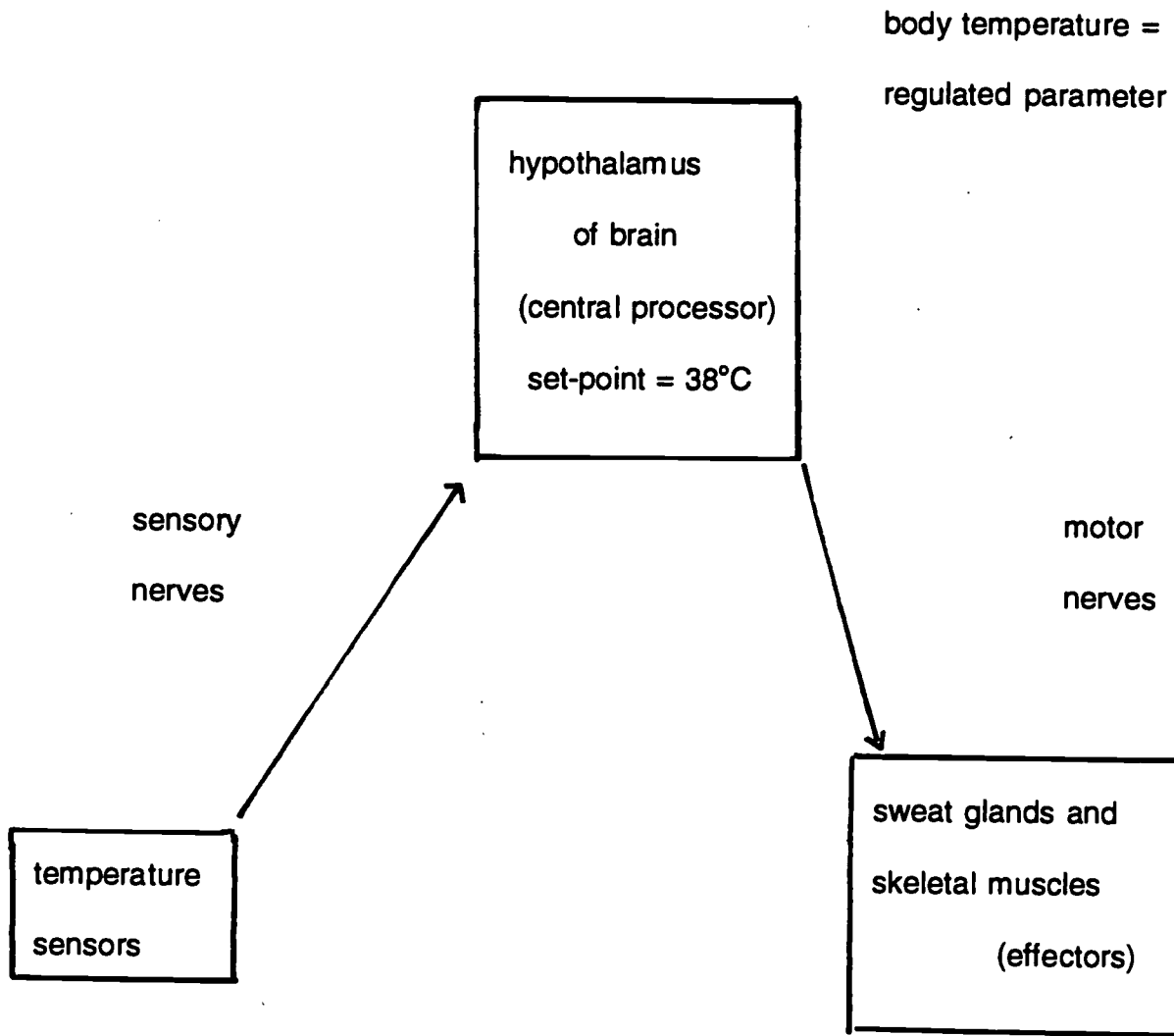
room temperature =  
regulated parameter



- If room temperature is above 68°F, then air conditioner is activated by thermostat.
- If room temperature is below 68°F, then heater is activated by thermostat.



Figure 1. Negative feedback regulation of room temperature.



- If body temperature is above 38°C, then sweat glands are activated by brain.
- If body temperature is below 38°C, then shivering of skeletal muscles is activated by brain.

Figure 2. Negative feedback regulation of body temperature.

## Procedure

In today's exercise, you will explore negative feedback regulation by use of a constant-temperature water bath. The temperature of the bath will be set at some value between 30°C and 50°C. The heating unit of the bath is on when the red light is on and off when the red light is off. NOTE: there is no cooling unit in this system. Watch the bath for 15 minutes and record the water temperatures whenever the light goes on or off (Appendix 1). The water temperature can be read from the thermometer found in the bath.

Appendix 1. Homeostasis exercise data sheet. Please turn in one copy of this sheet per group before leaving the laboratory today.

Names of Group Members -

a.

b.

c.

d.

Water temperature when light

comes on

Water temperature when light

goes off

---

(1 pt.)

1. What is the temperature range tolerated by this negative feedback system? (1 pt.)

2. What do you think the set-point is for this water bath? (1 pt.)

Why? (1 pt.)

3. The sensitivity of a negative feedback system is defined as the error signal required to activate the effectors. What is the sensitivity of this constant-temperature water bath? (1 pt.)

4. Draw a diagram similar to those found in Figures 1 and 2 for your constant-temperature water bath. (2 pt.)

5. Use the space below to modify your diagram by adding a cooling unit to the system. (2 pt.)

6. How might the addition of a cooling unit alter the sensitivity of your system? (1 pt.)

Professor Beverly Krilowicz  
Biology 155  
Winter 1994

The Study of Circadian Rhythms

March 8, 1994

Irma De Lira

f100  
Nice job  
Irma!  
Thanks,  
BKK

153

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## INTRODUCTION

All living organisms have internal cycles that regulate body functions. The internal cycles vary from circannual (about a year) rhythms to circadian (about a day) rhythms (Krilowicz, 1994). Circadian rhythms function in cycles of 24 hours. Most organisms that function on circadian rhythms are more active during the day and not as active at night. For example, many plants extend their leaves horizontally during the day, and fold them at night (Starr, 1991). On the other hand, there are some organisms that function on circadian rhythms and are more active at night than during the day. For example bats, spiders and other organisms perform their daily activities at night and rest/sleep during the day.

Similarly, humans function on circadian rhythms with a majority performing their daily activities during the day, and resting/sleeping at night. But there are some humans that perform their activities at night and rest/sleep during the day. These people have shifted their circadian rhythms, and due to that shift, many of them suffer sleep problems and impaired performance until their circadian rhythms readjust (Holden, 1991). This study investigated circadian rhythms and whether or not humans reached a low point of biological function at night and a high point during the day.

## MATERIALS AND METHODS

During the Winter quarter of 1994, biology 155 students, investigated circadian body rhythms during "normal" rest and activity periods. To be considered "normal", people had to go to sleep between 2200-2400 hours, wake-up between 0600-0800 hours and resume usual activities at the same time.

Three function tests were conducted in the same order in two-hour intervals during a 24 hour day for a period of two weeks. Students had to disrupt their "normal" sleep period to collect the data while they were sleeping. The first function test was the pulse measurement, which was done by placing the index and middle finger on the inside of the wrist for one minute. Second, was the eye-hand coordination test, done by touching the index finger of the dominant hand with the thumb and rotating fingers while counting one thru twenty-five, with twenty-five landing on the index finger. If a mistake was made the test was repeated. Finally, was the adding speed test, done by having a row of numbers and adding the first and second numbers, second and third numbers, and so on until the bottom of the row was reached.

## RESULTS

Observation of 16 students in Biology 155 class on CSULA campus showed that during normal sleep period the heart beat was lower than during normal activity period (Fig. 1), 64 was

the lowest heart beat mean at 0200, while 82 was the highest beat at 1200. Students also have a lower eye-hand coordination during the normal sleep period rather than during the normal activity period (Fig. 2). Students took 40 seconds with 2 mistakes (mean) to conduct the eye-hand coordination test at 0600, while at 1200 students took 13 seconds with 1 mistake. Finally, students took longer to do the adding speed test during the normal sleep period than during the normal activity period (Fig. 3). Students took 109 seconds to add at 0200 and 53 seconds at 1200.

#### DISCUSSION

The results of the investigation show that students' biological body rhythms reached a low point at night and a high point during the day. For example in this study, students took less time to perform an adding speed function test during the day than at night (Fig. 3). This finding is supported by studies (Visscher, 1983) that show many people work more efficiently during the day. Furthermore, in an eye-hand coordination function test, students took longer to perform at night than during the day (Fig. 2). This finding is supported (Hutchison, 1989) which show that difficulties arise when circadian rhythms are disrupted and people are not able to get sound sleep at night. Circadian body rhythms such as sleepiness and body temperature are regulated by the biological clock (Stroh, 1992).



This study showed a higher pulse rate during the day than at night (Fig. 1). This could be explained by the fact that during the day many people are more active and the level of energy use increases, while at night when people rest and relax the level of energy use decreases. Krilowicz (1994) supported this theory in a study that showed a monkey's energy use level increased during the day while it was looking for food and taking care of its young. At night, when it was normally asleep the level of energy use decreased.

In conclusion, biological functions are depressed at night during the rest period and activated during the days' activity period due to circadian rhythms.

Figure 1.  
Biological rhythm effects on pulse rate

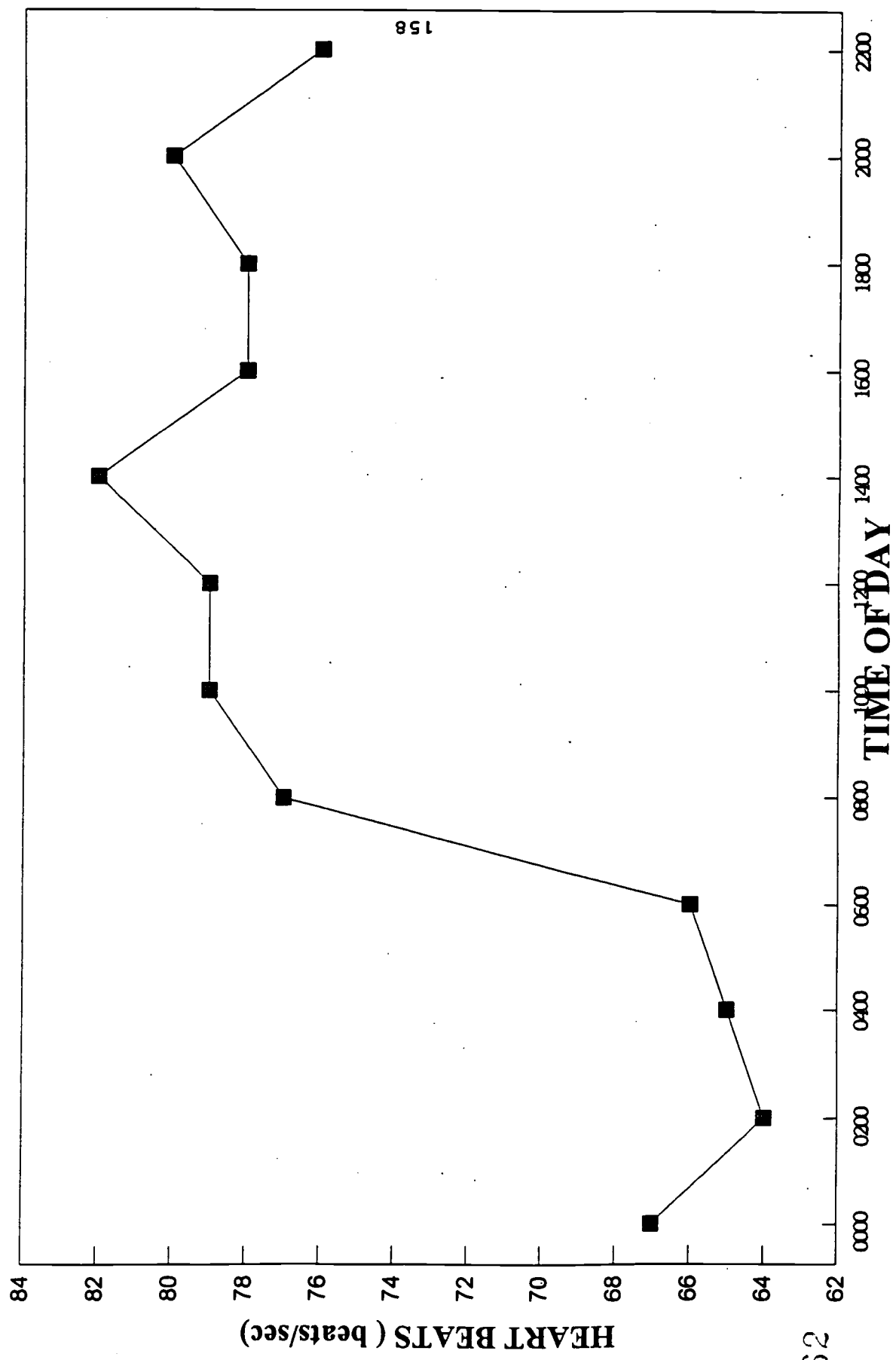
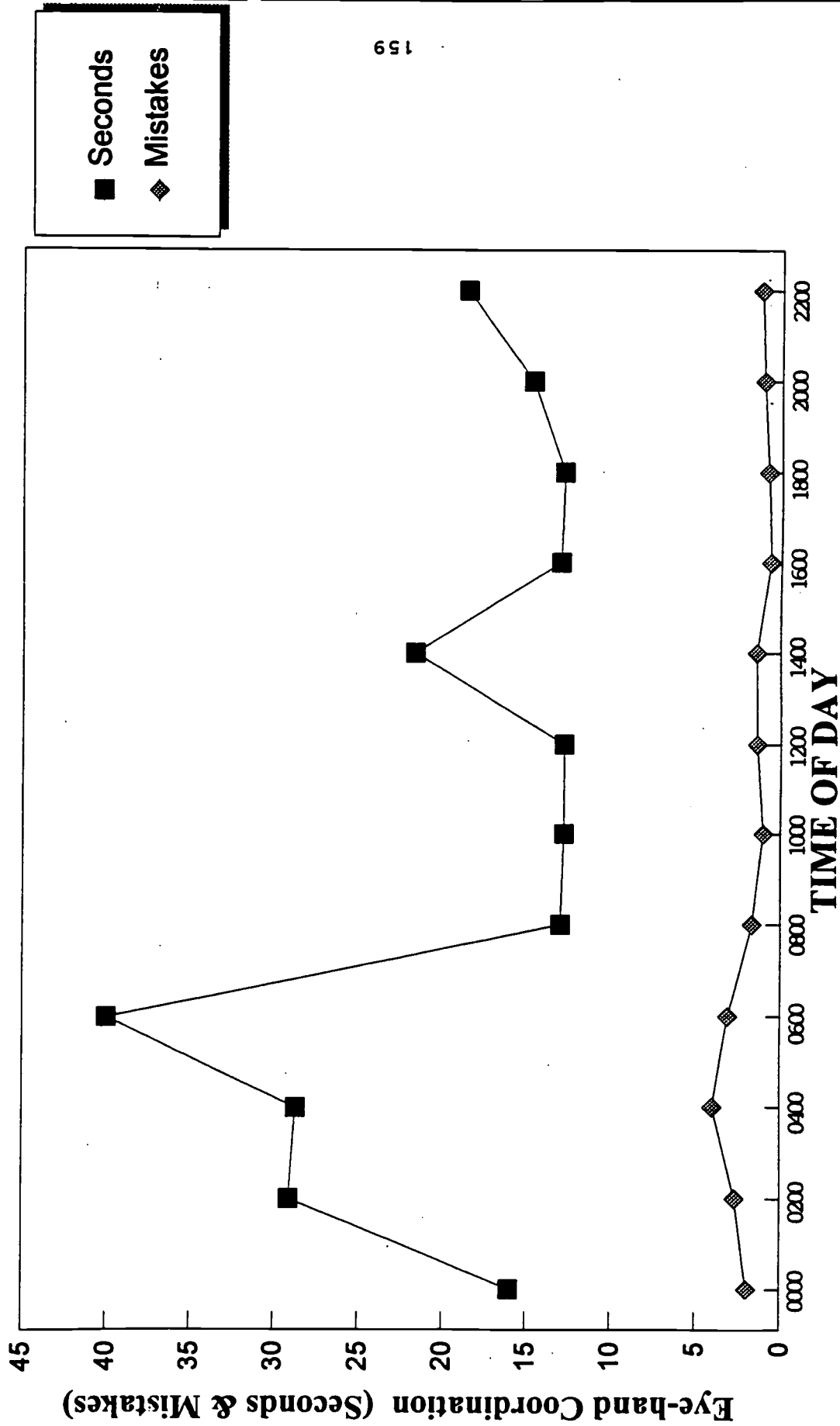


Figure 2.

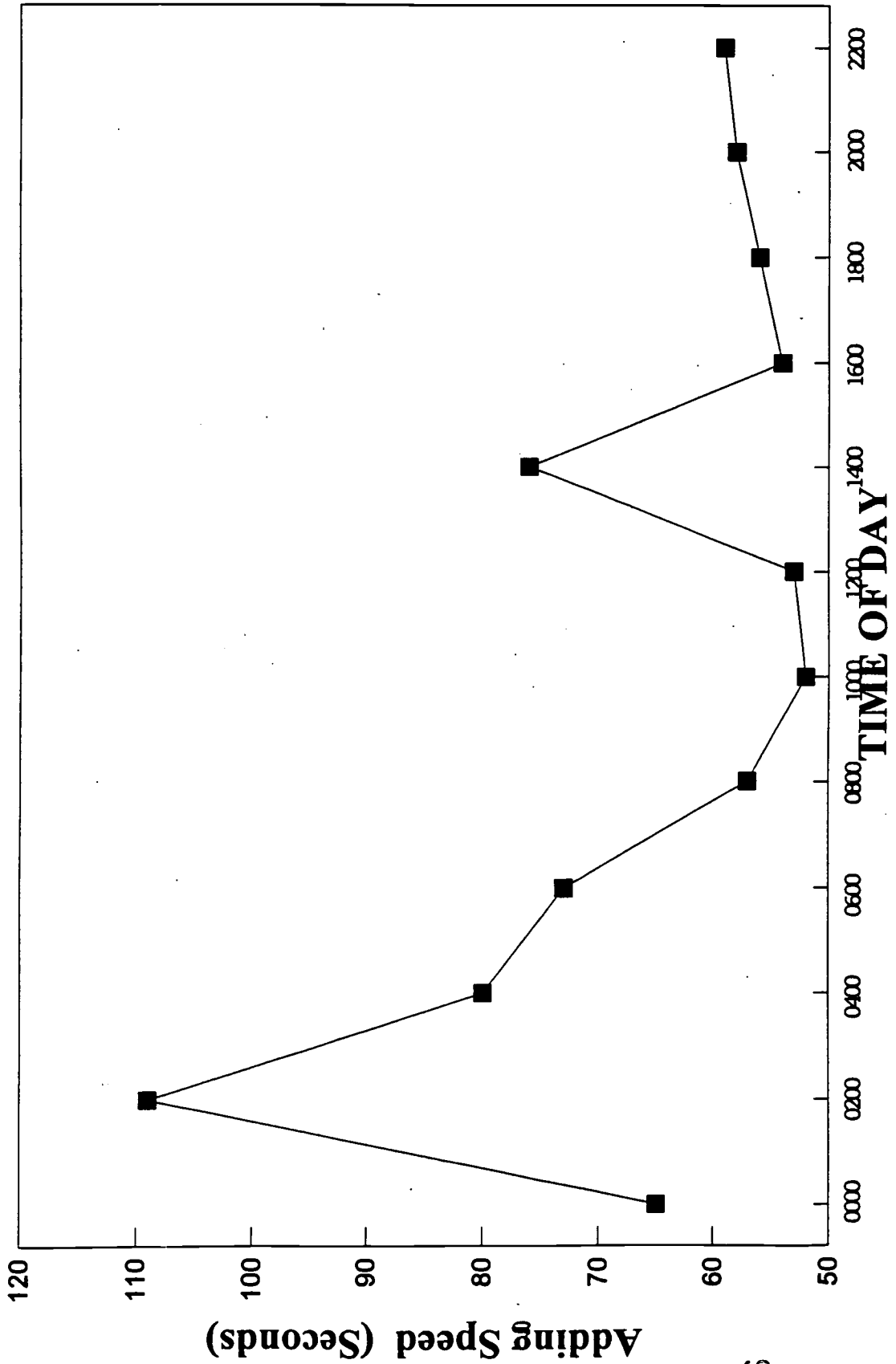
# Effects of Biological Rhythm on Motor Coordination



159

Figure 3.

# Adding Speed Affected by Biological Rhythms



160

167

166

Literature cited

1. **Holden, C.** OTA endorses the rhythm method. Science. 254:372, 1991.
2. **Hutchison, B.** Why doctors, drivers and drunkards need a big sleep. New Scientist. 121:32, 1989.
3. **Krilowicz, B.** Natural History of Animals: Biology 155 Laboratory Manual. 1994.
4. **Starr, C.** Biology: Concepts and Applications. Belmont, Wadsworth Inc. pg. 329, 1991.
5. **Stroh, M.** Genes may help reset circadian clock. Science News. 141:196, 1992.
6. **Visscher, T.** Clocks for mind and body. Science News. 124:154, 1983.

## BIOLOGY 155 MASTER PLAN - WINTER 1994

<u>COURSE SCHEDULE</u>	<u>LAB SCHEDULE</u>	<u>STUDY GROUP SCHEDULE</u>
WEEK		
I Course Introduction: What is Biology?	Course Introduction Introduction to the Scientific Method	Introduction to the Study Group Introduction to Project LEAP Group Building Syllabus Overview
Biological Molecules		Group Building (cont.) Syllabus Overview (cont.) Introduction to RPM LADE
II Cells Pre-Project LEAP Reading/Writing Assignment	Chronobiology: Human Rhythms Introduction to the Scientific Paper Library Activity: A Scaffolding Approach to Library Research	Group Building (cont.) Lecture Notetaking: Biology 155 RPM LADE (cont.)
Cellular Metabolism In-Class Reading/Writing Assignment	(cont.)	Group Building (cont.) Weekly Quiz Reading the Textbook: Developing Metacognitive Awareness Lecture Notetaking in Biology 155
III Holiday	Holiday	Holiday
Cellular Metabolism (cont.)		Preparing Reading Guides Introduction to Office Hours
IV Cell Division: Mitosis and Meiosis	What is an Animal? What is a Taxonomic Key? Group Exercise Library Research Process Class - Assignment is due Lecture: What's in a Materials and Methods Section?	Game: Preparing Reading Guides RPM LADE (cont.)
Taxonomy		Writing the Materials and Methods Section: Parts I, II, and III Mock Exam

Week

V Exam 1: (30 minutes)  
Taxonomy (cont.)

The Architecture of Animals:  
Group Exercise  
First Draft of Materials and  
Methods is due  
Lecture: How to Treat Your  
Data  
Students Pickup Tabulated  
Chronology Data.

Writing the Materials and Methods  
Section Part IV: Peer Feedback  
Writing the Literature Cited Section

Tissues, Organ Systems  
and Homeostasis

Time Management  
Writing the Results Section: Part I  
Writing the Literature Cited Section  
(cont.)

VI Integration: Nervous  
System

Nervous Systems - Information  
Processing  
Homeostasis: Group Exercise  
First Draft of Results Section  
and Literature Cited is due  
Lecture: What's in an Introduction?

Preparing Tables and Figures  
Writing the Results Section:  
Part III (cont.)  
Writing the Literature Cited Section  
(cont.)  
Weekly Quiz

Integration Endocrines

Writing the Introduction Part I:  
Analyzing an Introduction  
Writing the Introduction Part II:  
Writing Brief Summaries for the  
Introduction.

VII Feeding and Digestion

Gathering and Processing Food:  
Group Exercise  
First Draft of Introduction is due  
Lecture: What's in a Discussion?

Writing the Introduction Part III:  
Peer Feedback on Introduction

Circulation

Writing the Discussion Section:  
Parts I and II  
Game  
Weekly Quiz  
Dr. Kriłowicz Visits the Study Group

VIII Exam 2: (30 minutes)  
Gas Exchange

Respiration, Circulation, and  
Excretion: Group Exercise  
First Draft of the Discussion  
is due

Writing the Discussion Section:  
Part III

Water Balance and  
Excretion

Evaluating the Scientific Paper  
RPM LADE  
Weekly Quiz

Week

IX Support, Protection and  
Movement

Reproduction

X Course Evaluation  
Loose Ends  
Post-Project LEAP  
Reading/Writing  
Assignment

Exam 3: (30 minutes)  
In-Class Reading/Writing  
Assignment

Animal Covering, Support  
and Movement  
Group Exercise

Animal Reproduction and  
Development  
Group Exercise  
Final Version of the Paper  
is due

Evaluating Your Scientific Paper

Evaluating Your Scientific Paper  
Weekly Quiz

Evaluating Your Scientific Paper  
(cont.)

Preparation for Final Exam



## **Biology 155: Selected Exercises and Activities**

- **Lecture Notetaking in Biology 155**  
Handout: Notetaking Strategies  
Handout: Model Lecture Notes
- **Reading the Textbook: Developing Metacognitive Awareness**  
Handout: Reading a Chapter in the Biology Textbook
- **Preparing Reading Guides**  
Handout: Sample Reading Guide
- **A Scaffolding Approach to Library Research**  
Handout: A Scaffolding Approach to Library Research
- **The Library Research Process: Class Assignment**  
Handout: The Library Research Assignment
- **Writing the Materials and Methods Section: Part I**  
Handout: Sample Materials and Methods Section  
Handout: Checklist for the Materials and Methods Section
- **Writing the Materials and Methods Section: Part II**  
Handout: Avoiding Mistakes in the Materials and Methods Section  
Handout: Checklist for the Materials and Methods Section
- **Guidelines for Writing the Materials and Methods Section: Part III**  
Handout: Guidelines for Writing the Material and Methods Section
- **Writing the Materials and Methods Section: Part IV**  
Handout: Peer Feedback on the Materials and Methods Section
- **Writing the Results Section: Part I**  
Handout: Sample Results Section  
Handout: Checklist for Evaluating the Results Section
- **Writing the Results Section Part II: Interpreting Tables and Figures**  
Handout: Interpreting and Completing Tables and Figures
- **Writing the Results Section: Part III**  
Handout: Guidelines for Writing the Results Section

- **Writing the Results Section Part IV: Giving and Receiving Feedback**  
Handout: Peer Feedback on the Results Section
- **Writing the Literature Cited Section**  
Handout: Guidelines for the Literature Cited Section
- **Writing the Introduction: Part I**  
Handout: Sample Introduction  
Handout: Analyzing the Introduction
- **Writing the Introduction: Part II**  
Handout: Writing Brief Summaries for the Introduction
- **Writing the Introduction: Part III**  
Handout: Peer Feedback on the Introduction
- **Writing the Discussion Section: Part I**  
Handout: Sample Discussion  
Handout: Checklist for Evaluating the Discussion Section
- **Writing the Discussion Section: Part II**  
Handout: Guidelines for Writing the Discussion Section
- **Writing the Discussion Section Part III: Giving and Receiving Feedback**  
Handout: Peer Feedback on the Discussion Section
- **Evaluating the Scientific Paper**  
Handout: Evaluating the Scientific Paper

**LECTURE NOTETAKING IN BIOLOGY 155**

**OBJECTIVE:** To make students aware of their notetaking strategies the first week of class. To help students improve their notetaking strategies through modeling, practicing, evaluating, and reinforcing.

**RATIONALE:** Notetaking is a useful strategy that allows students to record information to be remembered for a test or ideas to be applied to a writing assignment.

**PROCEDURES:**

1. Have students work in pairs and answer the questions below:
  - A. Do you use any abbreviations or symbols when you take notes in class? If so, list some of the abbreviations or symbols you use.
  - B. Do you organize your notes in a particular way? If so, describe how you organize them (in outline form, using headings and subheadings...) using complete sentences or isolated words.
  - C. Before going to class, do you look at the syllabus to remind yourself of the topic of the lecture?
  - D. After class, do you go over your notes to review what the content professor presented in class?
  - E. Can you summarize your notes in one or two sentences?
2. Distribute the handout: **Notetaking Strategies**. Working in groups, students will go over the handout and discuss any necessary questions.
3. Give students the handout **Model Lecture Notes**, and have students analyze it using the questions below:
  - A. Do you see two margins? If so, how are they used?
  - B. What are some of the abbreviations and symbols used by the student?
  - C. Do you think you can summarize the lecture by looking at the student's notes? If so, summarize the lecture content in one or two sentences.
  - D. Can you add any questions?
4. Students should share their lecture notes, compare them to the **Model Lecture Notes**, and decide what changes they should make in the way they take notes in class.
5. As a follow-up activity the second week of class, students will share and evaluate their notes.

**Note to Study Group Leader:** This activity can be adapted to the students' needs and the study group time constraints. The study group leader should decide whether or not she/he wants to skip part of the activity.

**HANDOUT: NOTETAKING STRATEGIES**

Taking notes will help you pay attention in class.

**Before the professor starts lecturing:**

1. Go over the syllabus and identify what **today's topic is**. This will help you focus.
2. Date and label your notes at the top of the page.
3. Draw an imaginary margin and keep all lecture notes to one side. Use the other side for elaboration (writing more information about the topic) and clarification (writing questions or comments).

Add your suggestion: \_\_\_\_\_

**While the professor is lecturing:**

1. Outline, but do not worry about following perfect form. Indent supporting details and examples under main ideas.
2. If you fall behind, skip space and write a "lost signal" (e.g., ??, COMPLETE!!) to remind you to ask someone what you missed.
3. Summarize ideas. Except when
  - A. Definitions are given
  - B. Formulas are given
4. Abbreviate, use symbols, and skip articles (e.g., the, an, a) and verbs (have, is, are).
5. Star (\*) important points in the lecture.
6. Pay attention to how the professor structures his/her lecture. Specifically, pay attention to:
  - A. The word the professor uses to emphasize main ideas/important points.
  - B. How many times, if any, the professor repeats the concepts in the lecture.
  - C. Whether or not the professor repeats the main idea of the lecture at the end of the session.
  - D. Whether or not the professor has an outline on the board. If you see an outline, copy it!!

Add your suggestion: \_\_\_\_\_

**After the lecture is over:**

1. Go over your notes and fill in any gaps
2. Review your notes so that the lecture content is not new to you when you have to prepare for a quiz/midterm exam.
3. Think of one (or two) summary sentence(s) that contains the most important ideas of the lecture.
4. Write the summary sentence(s) at the top or at the bottom of your notes.

Add your suggestion: \_\_\_\_\_

Bio 155 1/3/94

- 1. Bio
  - 2. Science
  - 3. Scientific Method.
- } Biology?

Science {

- System of knowl. explains natural world. How & Why?
- = all sciences  $\Rightarrow$  to est. knowl. (3) is used

Biology {

- Science of life. explains how org. (anything living) works

All living things have them

Characteristics (3)

1. ability to reproduce
2. Metabolism = ability to extract energy & mat from env. & use to produce parts of body (eg when we eat we extract energy from food to use as fuel)
3. Ability to respond to stimuli or changes in external environment
  - a. homeostasis (maintenance of constant internal conditions) (eg maintain blood glucose levels)
  - b. Mutation (changes in DNA)

2

1-3-94

Scientific Method → formalized system of gathering facts

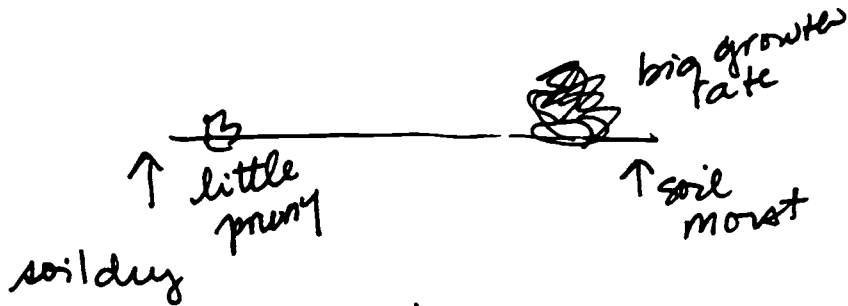
3 STEPS

1 - Make an observation: gather facts

eg: Primroses



N



observation = N grows well  
S grows poorly

2 - Develop an explanation = Hypo to explain

observation. eg S ~~grows~~ grow poorly bc low soil wa.

3 - Test Hypo

re-read imp !!

a. design experiment (sci invest. under controlled conditions)

eg. Add + H<sub>2</sub>O to S flw. to keep soil = moist on S & N flw. (f/3 wks)

b. make a prediction ab. outcome assuming hypo is OK

eg. if soil moisture explains  $\neq$  in growth rate, then + H<sub>2</sub>O on S flw should  $\uparrow$  growth.

BEST COPY AVAILABLE

3/ 1-3-94

c. conduct exp to gather data (results)  
eg add #20 for 3 wks.  
result = poor flw. growth on S side

d. draw conclusion  
eg: soil moist. doesn't explain

e. Modify Hypo  
eg: flw shows  $\neq$  growth rate bc.  
too much  $H_2O$

Start process again



**READING THE TEXTBOOK: DEVELOPING METACOGNITIVE AWARENESS**

**OBJECTIVE:** To discuss textbook reading strategies.

**RATIONALE:** Discussing how to read the Biology textbook may help students become aware that reading the textbook strategically will enhance their comprehension of important information.

**PROCEDURES:**

1. Give students a copy of the handout: **Reading a Chapter in the Biology Textbook.**
2. Encourage a class discussion about the handout.
3. For the following class, have students read the assigned chapter in the Biology class and evaluate whether or not using the strategies helped them read the chapter more effectively.

**Note to Study Group Leader:** This activity can be adapted to the students' needs and the study group time constraints. The study group leader should decide whether or not she/he wants to skip part of the activity.

**HANDOUT: READING A CHAPTER IN THE BIOLOGY TEXTBOOK**

**Instructions:**

1. Read the steps below.
2. Discuss how following the steps would help you comprehend the information in the Biology textbook chapter.

**Suggested Steps for Reading a Chapter:**

1. Read the title of the chapter.
2. Read the KEY CONCEPTS (to understand the important concepts that the chapter will focus on).
3. Read the summary section at the end of the chapter.
4. Identify the different sections (headings) of the chapter.
5. Read the subheadings. (How do they relate to the headings?)
6. Read the summary boxes (WITHIN BRIGHT BLUE LINES). What do they tell you about the section you are about to read?
7. Start reading the different sections. Pay attention to the first and last sentences of each paragraph (they probably contain the paragraph's main idea).
8. Pay attention to whether the ideas presented in each subsection are summarized or restated. Also pay attention to words in bold face or italics.
9. Reread the summary section at the end of the chapter. Did you miss any concepts or important ideas?

## PREPARING READING GUIDES

**OBJECTIVE:** To organize and condense ideas for tests.

**RATIONALE:** Reading guides are study aids that help students summarize information that will be used when preparing for exams and class presentations. Because reading guides condense important information, students do not need to reread the assigned chapters.

**PROCEDURES:** This activity should be completed early in the quarter after students have read one of the chapters in the textbook and identified important information in it.

1. Give students a copy of the handout: **Sample Reading Guide**.
2. Using the questions below, students should analyze the reading guide.
  - a. How long is the reading guide?
  - b. How is the reading guide organized?
  - c. What information is included in the reading guide?
  - d. What are some notetaking strategies that the reader employed in her/his reading guide?

**Note to Study Group Leader:** This activity can be adapted to the students' needs and the study group time constraints. The study group leader should decide whether or not she/he wants to skip part of the activity.

Chapter 4. Bio textbook.

## Ground Rules of Metabolism.

CELL → • uses energy &amp; materials.

• alive/growing • may ↑ into 2.

This chp → Metabolism → dynamics of cell life.

I. ENERGY & LIFE (E & L)

1. E: makes things happen/change/work
2. E can't be created from scratch = 1st Law of Meta
3. NO E conversion can be 100% efficient  
E dispersed as heat > 2nd Law of Meta
4. W/o E • organized system become DIS ~
5. Sun: source of E

II NATURE OF METABOLISMA. E. changes in Metabolic (M) Reactions

1. products (end of reaction) may have + or - E than reactants (starting substance)
2. > reactions → reversible
3. reversible reactions = dynamic equilib.

B. Meta pathways = series of reactions, quickened w/ help of specific enzymes.

degradative  
lipids, proteins  
carbohydrates are  
BROKEN DOWN

VS

biosynthetic  
small molecules assembled  
into lipid, proteins, & other  
large bio mole

### III. ENZYMES

- selective ab substrates (reactants it deals w)
- proteins w/ catalytic power (faster) enhance rate

#### A. Structure

folded in shape of 1 crevice

& function

↑ reaction rate by ↓ activation energy

#### B. EFFECTS of Temp. & pH on ENZYMES

- w/ high temp reaction rates ↓
- > enzymes → function best w/ pH 7 (neutral)

#### C. CONTROL of ENZYME ACTIVITY

- inhibitors = bind w/ Enzyme & interfere w/ function
- allosteric control = spe subst. bind/alter enz acti.

### IV. COFACTORS

- Non protein components. Help catalyze reaction/carry groups stripped from substance.
- eg: NAD & NADP

### V. ATP: Main Energy Carrier

- A. Sun ener. transformed into chemi energy of ATP
- B. ATP → provides energy for biosynthesis, mole displacement

### VI. ELECTRON TRANSPORT SYSTEMS (ETS)

ATP produc. depends on ETS

## A SCAFFOLDING APPROACH TO LIBRARY RESEARCH

**OBJECTIVE:** To teach students successful library research strategies using computer databases and indexes that will be applicable to the scientific paper.

**RATIONALE:** Students will have to apply library research strategies to their scientific paper assignment.

### **PROCEDURES:**

1. Give students a copy of the handout: **A Scaffolding Approach to Library Research.**
2. In the library, have a reference librarian guide the students as they complete the activities. It is important that, working in pairs, students have the opportunity to engage in hands-on-experience activities.
3. Using the library handouts, students should be able to go back to the library and use the library independently.

**Note to Study Group Leader:** This activity can be adapted to the students' needs and the study group time constraints. The study group leader should decide whether or not s/he wants to skip part of the activity.

**HANDOUT: A SCAFFOLDING APPROACH TO LIBRARY RESEARCH**

**Purpose of the library activity:**

To help you locate articles using

- A. The General Science Index, the Applied Science and Technology Index,
- B. CD-ROM Computers,
- C. CARL, and
- D. LEXIS/NEXIS terminals.

**STEP 1.** For the purposes of this activity, your descriptor (TOPIC/SUBJECT/SUBJECT HEADING) is **SLEEP DISORDERS**.

**USING THE GENERAL SCIENCE INDEX**

**STEP 2.** Look up your descriptor (TOPIC/SUBJECT/SUBJECT HEADING) in the General Science Index.

**STEP 3.** Look at page 3 in this packet for instructions on how to locate references on SLEEP DISORDERS.

**STEP 4.** Select an article of interest from the following list of acceptable journals (PROFESSIONAL MAGAZINES): Scientific American, Science News, Science, Nature, Psychology Today, and Discover.  
Then,

Fill in the information about the article:

Title of the article \_\_\_\_\_

Author/s of the article: \_\_\_\_\_

Journal (PROFESSIONAL MAGAZINE) title: \_\_\_\_\_

Volume: \_\_\_\_\_

Pages: \_\_\_\_\_

Month: \_\_\_\_\_ Day: \_\_\_\_\_ Year: \_\_\_\_\_

**STEP 5.** Go to the second floor, Library North and use the Periodicals Card Catalog to make sure that the Library owns the journal you identified in **STEP 4**. (In your case, the library owns all of the journals listed in 4.)

**STEP 6.** Go to the stacks, find the journal, and locate the article listed in the Index. **Make sure that you record:**  
**the title of the article, author/s,**  
**title of journal where you located the article,**  
**journal volume, article pages,**  
**month, day, and year of publication.**

### USING CD-ROM COMPUTERS

**STEP 7.** Use CD-ROM for journals/magazines and locate references for your descriptor (SLEEP DISORDERS). Look at page 4 in this library packet for instructions on how to find references using CD-ROM computers.

Fill in the information below:  
Number of articles on SLEEP DISORDERS: \_\_\_\_\_  
Number of articles identified from  
the list of acceptable journals: \_\_\_\_\_

### USING CARL

**STEP 8.** Use CARL to locate additional references to journals. Look at page 5 in this library packet for instructions on how to find references using CARL.

Fill in the information below:  
Key word you used for your search: \_\_\_\_\_  
Number of articles on SLEEP DISORDERS: \_\_\_\_\_  
Title of two articles from acceptable journals:  
1. \_\_\_\_\_  
2. \_\_\_\_\_

### USING LEXIS/NEXIS

**STEP 9.** Use LEXIS/NEXIS to locate additional references to journals. Look at pages 6 and 7 in this library packet for instructions on how to find references using LEXIS/NEXIS.

Fill in the information below:  
Key word you used for your search: \_\_\_\_\_  
Number of articles on SLEEP DISORDERS: \_\_\_\_\_  
Title of two articles from acceptable journals:  
1. \_\_\_\_\_  
2. \_\_\_\_\_



### THE LIBRARY RESEARCH PROCESS: CLASS ASSIGNMENT

**OBJECTIVE:** To provide students practice in library research; to help students locate some of the articles that they will use in their scientific paper.

**RATIONALE:** This class assignment will provide students with much needed practice regarding how to use the library. At the same time, this activity will help students identify some articles that they may use in their paper early in the quarter.

**PROCEDURES:** This activity was a class assignment. After participating in the activity entitled **A Scaffolding Approach to Library Research**, students were required to complete the handout: **The Library Research Process** and hand in the results of their search.

**HANDOUT: THE LIBRARY RESEARCH ASSIGNMENT**

**DUE ON:** \_\_\_\_\_

**TOPICS:** Aviation- Physiological aspects  
Rapid eye movement  
Jet lag  
Air pilots-work load  
Dreams  
Periodicity  
Sleep (REM)  
Sleep-wake cycle  
Slow-wave sleep (SWS)  
Moon-biological effect

Working individually, complete the following assignment.

Student's Name: \_\_\_\_\_  
Topic Assigned: \_\_\_\_\_

**IMPORTANT: You can add subject headings related to your topic. Adding subject headings, if necessary, will allow you to locate more articles on your topic.**

**STEP 1. LOCATE** your topic in the General Science Index or in the Applied Science and Technology Index.

**STEP 2. PHOTOCOPY** the page listing references on your topic and **attach** a copy of the page listing the references.

**STEPS 3 and 4.** Go to the second floor, Library North; make sure that the library owns the journal/magazine you identified in Step 2, and

- (a) **PHOTOCOPY** the title page of the article (first page).
- (b) **ATTACH** the title page, and
- (c) **COMPLETE** the information requested about the article:

Title of the article \_\_\_\_\_

Author/s of the article: \_\_\_\_\_

Journal title: \_\_\_\_\_

Volume: \_\_\_\_\_

Pages: \_\_\_\_\_

Month: \_\_\_\_\_ Day: \_\_\_\_\_ Year: \_\_\_\_\_

**STEP 5.** Use CD-ROM for journals/magazines and locate references/citations for your subject heading/topic.

**(a) Print out** the list of references and

**(b) Attach** the CD-ROM printout.

**STEP 6.** Use CARL to locate additional references/citations to academic journals and **complete:**

Key words used for the search: \_\_\_\_\_

Title of 3 articles from acceptable journals:

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

**STEP 7.** Use LEXIS to locate additional references to journals (periodicals) and **complete:**

Key words used for the search: \_\_\_\_\_

Number of articles on the topic: \_\_\_\_\_

Title of 3 articles from acceptable journals (the articles should be different from those identified in Step 6):

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

## WRITING THE MATERIALS AND METHODS SECTION: PART I

**OBJECTIVE:** To provide students with a model Materials and Methods section and to help students evaluate the section; to give students guidelines on how to write the Materials and Methods section.

**RATIONALE:** For all of the students in the Biology 155 class, this is the first time that they have been asked to conduct a data collection project. Therefore, modeling and evaluating a model Materials and Methods section will provide students with much needed guidance regarding how to complete the writing assignment.

### PROCEDURES:

1. Have students work in small groups and read the handout: **Sample Materials and Methods Section**.
2. Using the checklist below, have students analyze the section.
3. When the groups have completed step 2, they should compare their answers.

**Note to Study Group Leader:** This activity can be adapted to the students' needs and the study group time constraints. The study group leader should decide whether or not she/he wants to skip part of the activity.

**HANDOUT: SAMPLE MATERIALS AND METHODS SECTION**

On August 15, 1991, nine Biology 165 students, working in groups of three, examined the relationship between "unusual" and "common appearances" and mate selection in humans at California State University, Los Angeles (CSULA). For the purposes of this study, to be considered "unusual" people had to fall into at least one of three possible categories. First, in terms of clothing, people had to be wearing ethnic clothes. Second, in terms of accessories, people wearing nose-rings and hats other than baseball caps were considered to be unusual. Finally, unusual physical characteristics included shaved heads and colored hair.

For a thirty-minute period, from 14:15 to 14:45, each group observed and recorded the gender and appearance of the people they saw. Moreover, from 14:45 to 15:15, male-female pairs were observed and, using the definition of "unusual" and "common" given in this section, the students' appearance was determined and recorded. Furthermore, the number of observed males and females with "unusual" and "common" characteristics was added.

[Adapted from two student papers.]

**HANDOUT: CHECKLIST FOR THE MATERIALS AND METHODS SECTION**

**Instructions:** Use the checklist below to analyze the Materials and Methods section.

**A good Materials and Methods section should:**

1. State the goal/purpose of the study in the introductory paragraph.  
Has the author stated the goal/purpose of the study?                      YES              NO

If your answer is YES, identify the goal/purpose.

2. Exclude personal opinion.  
Has the author excluded personal opinion?                                      YES              NO

If your answer is YES, give examples.

3. Provide enough detail about the data collection process (how the data were collected) for you to be able to repeat the experiment.  
Has the author provided enough detail about the data collection process for you to repeat the experiment?                      YES              NO

If your answer is YES, give examples.

4. Avoid "I" and "We."  
Has the author avoided "I" and "We"?    YES              NO

If your answer is YES, determine what the author has used instead of "I" and "We."

5. Include sentences connected with words such as **first, second, moreover, furthermore, however, in contrast,**  
Has the author connected sentences by using the words above?    YES              NO

If your answer is YES, identify two examples.

6. Define important terms (if they have not been defined in the Introduction).  
Has the author defined important terms?    YES              NO

If your answer is YES, underline one definition.

**WRITING THE MATERIALS AND METHODS SECTION: PART II**

**OBJECTIVE:** After completing Writing the Materials and Methods Section Part I, this activity will help students become aware of some commonly made mistakes they should avoid when they write the section. For this purpose, students will evaluate a poorly written Materials and Methods section

**RATIONALE:** For all of the students in the Biology 155 class, this is the first time that they have been asked to complete a data collection project. Therefore, evaluating a poorly written Materials and Methods section will make students aware of what they should **not** do when writing the scientific paper.

**PROCEDURES:**

1. Have students work in small groups and read the handout: **Sample Materials and Methods Section**.
2. Using the checklist below, have students analyze the section and make any necessary corrections.
3. When the groups have completed step 2, they should compare their answers.

**Note to Study Group Leader:** This activity can be adapted to the students' needs and the study group time constraints. The study group leader should decide whether or not she/he wants to skip part of the activity.

**HANDOUT: AVOIDING MISTAKES IN THE MATERIALS AND METHODS SECTION**

**Instructions:** Working in groups, analyze the Materials and Methods section below. Using the **Checklist**, make any necessary corrections and compare your answers in groups.

On August 15, 1991, nine Biology 165 students working in groups of three decided to observe students on the Cal State LA campus. Working with my team members, I conducted the observations by a table in the Student Union.

For a thirty-minute period, I recorded the gender and appearance of the people I saw. Then, I paid attention to male-female pairs and recorded the students' appearance. The number of observed males and females with unusual and common characteristics was added. Overall, I think that the activity went well.



**HANDOUT: CHECKLIST FOR THE MATERIALS AND METHODS SECTION**

**Instructions:** Use the checklist below to analyze the Materials and Methods section.

The author:

1. Has stated the goal/purpose of the study. YES NO

If your answer is YES, identify it. If your answer is NO, decide what you would say.

2. Has **included** personal opinion. YES NO

If your answer is YES, decide what changes you would make to **exclude** personal opinion.

3. Has provided enough detail about the data collection process (how the data were collected) for you to be able to repeat the experiment. YES NO

If your answer is NO, decide what information is missing.

4. Has used "I" and "We". YES NO

If your answer is YES, decide what changes you would make.

5. Has defined important terms. YES NO

If your answer is NO, decide what terms you would define.

### **GUIDELINES FOR WRITING THE MATERIALS AND METHODS SECTION: PART III**

**OBJECTIVE:** To provide students with questions that will guide them in writing the Materials and Methods section.

**RATIONALE:** The questions will guide students when they write the Materials and Methods section.

#### **PROCEDURES:**

##### **Option 1.**

1. Write the questions below on the board.
2. Working in groups, have students answer the questions in paragraph form.
3. When students have completed the activity, have the groups share what they have written and compare it using the handout: **Peer Feedback Form**.

##### **Option 2.**

1. Copy the questions below on the board.
2. Using the questions below, have students complete the Materials and Methods section for the following class.
3. Students should compare their drafts using the **Peer Feedback Form**.

**Note to Study Group Leader:** This activity can be adapted to the students' needs and the study group time constraints. The study group leader should decide whether or not she/he wants to skip part of the activity.

**HANDOUT: GUIDELINES FOR WRITING THE MATERIALS AND METHODS SECTION**

**Instructions:** Use the questions below to help you write your Chronobiology Materials and Methods section. However, DO NOT LIMIT YOURSELF TO 1 through 5.

1. What was the goal/purpose of the observation?
2. How many function tests were conducted?
3. When were the function tests conducted?
4. In what order were the function tests conducted?
5. What was the procedure that used to conduct the tests?
6. ADD YOUR OWN:

## WRITING THE MATERIALS AND METHODS SECTION: PART IV

**OBJECTIVE:** To help students evaluate their classmates' Materials and Methods section.

**RATIONALE:** By working with the peer feedback form, students will enhance their drafts and will understand the importance of revising them.

### **PROCEDURES:**

1. Tell the students that the purpose of this activity is to help them revise their classmates' drafts. Emphasize the importance of giving constructive feedback.
2. Working in dyads, students will exchange what they have written.
3. Students will read what their classmates have written and will give them feedback using the checklist.
4. After students have completed the activity, have a group of students share one or two corrections that they have made.
5. As the next step, have students rewrite their section using their classmates' comments.

**Note to Study Group Leader:** This activity can be adapted to the students' needs and the study group time constraints. The study group leader should decide whether or not she/he wants to skip part of the activity.

**HANDOUT: PEER FEEDBACK ON THE MATERIALS AND METHODS SECTION**

**Instructions:** Use the checklist below to help you evaluate your classmate Materials and Methods.

Reader's Name: \_\_\_\_\_

Writer's Name: \_\_\_\_\_

**The writer:**

- |  |     |    |
|--|-----|----|
| 1. Has stated the goal/purpose of the study.<br>If your answer is NO, make a suggestion for your classmate to follow.  | YES | NO |
| 2. Has described   |     |    |
| A. the three function tests,   | YES | NO |
| B. when they were conducted,   | YES | NO |
| C. the order in which they were conducted.<br>If your answer to any of the above is NO, make a suggestion for your classmate to follow.  | YES | NO |
| 3. Has included personal opinion.<br>If your answer is YES, make a suggestion for your classmate to follow.  | YES | NO |
| 4. Has provided enough detail about how the data were collected for you to repeat the experiment.<br>If your answer is NO, make a suggestion for your classmate to follow.     | YES | NO |
| 5. Has used "I" and "We".<br>If your answer is YES, change your classmate's sentence.  | YES | NO |
| 6. Has connected sentences by using words words such as <b>first, second, moreover, furthermore</b> .<br>If your answer is NO, make a suggestion for your classmate to follow. | YES | NO |
| 7. Has defined/explained important terms.<br>If your answer is NO, make a suggestion for your classmate to follow.   | YES | NO |

**WRITING THE RESULTS SECTION: PART I**

**OBJECTIVE:** To provide students with a model Results section and to help students evaluate the section; to give students guidelines regarding how to write the Results section.

**RATIONALE:** For all of the students in the Biology 155 class, this is the first time that they have been asked to complete a data collection project. Therefore, modeling and evaluating a model Results section will provide students with much needed guidance in how to complete the writing assignment.

**PROCEDURES:**

1. Have students work in small groups and read the handout: **Sample Results Section** below.
2. Using the **Checklist for Evaluating the Results Section** below, have students analyze the section.
3. When the groups have completed step 2, they should compare their answers.

**Note to Study Group Leader:** This activity can be adapted to the students' needs and the study group time constraints. The study group leader should decide whether or not she/he wants to skip part of the activity.

**HANDOUT: SAMPLE RESULTS SECTION**

Observations of 2300 male and 2400 female students on the CSULA campus showed that the percentage of "common" males was much higher than that of "common" females. As shown in Table 1, 87% of males and 63% of females were found to be "common." Most of the male-female pairs observed were categorized as common-unusual (Table 2).

TABLE 1. Survey of Students on the CSULA Campus

GENDER	COMMON	UNUSUAL	TOTALS
Males	2000 (87%)	300 (13%)	2300 (100%)
Females	1500 (63%)	900 (37%)	2400 (100%)

TABLE 2. Male-female pair survey of students on the CSULA campus

Pair-Type	Number of Pairs		Percentage of Pairs	
	Observed	Expected	Observed	Expected
Common male-female	50	100	22%	42%
Unusual male-common female	30	35	12%	15%
Common male-unusual female	134	61	57%	26%
Unusual male-unusual female	22	40	9%	17%
Totals	236	236	100%	100%

[Adapted from two student papers.]

**HANDOUT: CHECKLIST FOR EVALUATING THE RESULTS SECTION**

**Instructions:** Use the checklist below to analyze the sample Results section

**A good Results section should:**

- |    |  |     |    |
|----|--|-----|----|
| 1. | <p>Include a verbal description of the results.<br/>           Has the writer described the results verbally?<br/>           If your answer is YES, summarize the results<br/>           in one or two sentences.</p>  | YES | NO |
| 2. | <p>Include examples or specific information about<br/>           the results. This means that the reader should<br/>           understand the results without looking at tables<br/>           and figures.<br/>           Can the reader understand the results by<br/>           reading the text <b>WITHOUT</b> looking at the<br/>           visual presentations?</p> | YES | NO |
| 3. | <p>Include a visual presentation (tables and figures)<br/>           of the results.<br/>           Has the writer included a visual presentation?<br/>           If your answer is YES, identify the tables or figures.</p>   | YES | NO |
| 4. | <p>Include a self-explanatory visual presentation.<br/>           This means that you should be able to understand<br/>           the results <b>WITHOUT</b> reading the verbal description.<br/>           Can you understand the results by looking at the<br/>           tables <b>ONLY</b>?</p>  | YES | NO |



## WRITING THE RESULTS SECTION PART II: INTERPRETING TABLES AND FIGURES

**OBJECTIVES:** To help students understand how to interpret tables and figures; to teach students how to prepare tables and figures--students will have to include tables and figures in the scientific paper.

**RATIONALE:** Tables and figures allow elaborate relationship systems to be represented visually. Interpreting and completing visual representations will help students understand complex relationships in a passage. Learning how to prepare tables and figures will facilitate the students' work when they write the scientific paper.

### **PROCEDURES:**

1. Distribute copies of the handout: **Interpreting and Completing Tables and Figures.**
2. Have students work in small groups and interpret the table.
3. Have the groups complete a table, share what they have done, and make any corrections if necessary.
4. Follow 1 through 3 to teach students how to interpret a figure.

**Note to Study Group Leader:** This activity can be adapted to the students' needs and the study group time constraints. The study group leader should decide whether or not she/he wants to skip part of the activity.

**HANDOUT: INTERPRETING AND COMPLETING TABLES AND FIGURES**

**Instructions:** Working in groups, answer the questions below.

**Interpreting Tables**

1. What does the table tell you about students on the CSULA campus?
2. What can you say about the observed and expected number of common male-unusual female pairs?

TABLE 2. Male-female pair survey of students on the CSULA campus

Pair-Type	Number of Pairs		Percentage of Pairs	
	Observed	Expected	Observed	Expected
Common male-female	50	100	22%	42%
Unusual male-common female	30	35	12%	15%
Common male-unusual female	134	61	57%	26%
Unusual male-unusual female	22	40	9%	17%
Totals	236	236	100%	100%

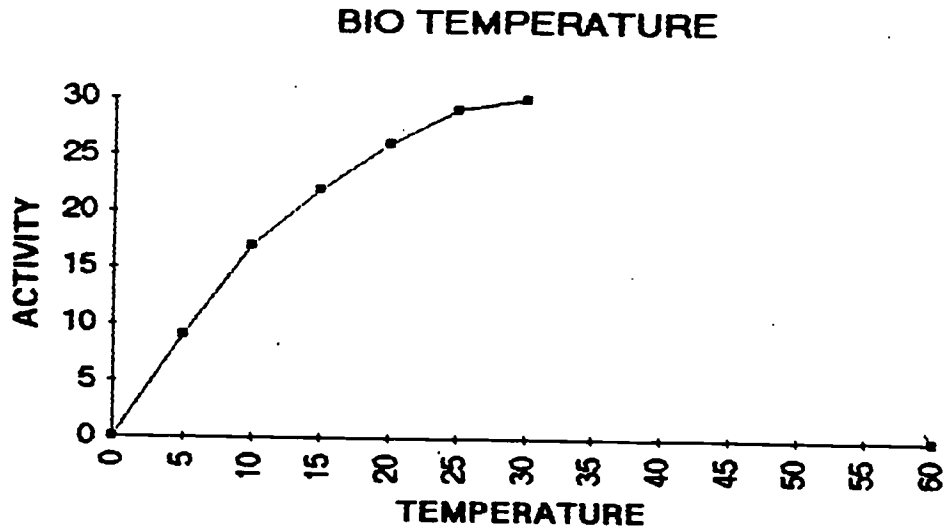
**Preparing Tables**

1. Decide how many columns you need. For example, the table above has 3 columns. Decide how many rows you need. The table above has 6 rows.
2. Each table should have a title that summarizes the information contained in the table.

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### Interpreting Figures

1. What does the figure tell you about level of activity and temperature?



### Preparing Figures

1. A figure has two axes--a horizontal axis,(e.g., temperature - and a vertical axis--i.e., activity).
2. Decide what information you want on each of the axes.
3. Each figure should have a title that summarizes the information contained in the figure.

**WRITING THE RESULTS SECTION: PART III**

**OBJECTIVE:** To provide students with questions that will help them write the Results section.

**RATIONALE:** The questions will help students write the Results section of the scientific paper.

**PROCEDURES:**

Option 1.

1. Write the questions below on the board.
2. Working in groups, students answer the questions in paragraph form.
3. When students have completed the activity, have the groups share their Results section and compare them using the **Peer Feedback Form**.

Option 2.

1. Copy the questions below on the board.
2. Using the questions below, students should complete the Results section for the following class.
3. Students should compare their drafts using the **Peer Feedback Form**.

**Note to Study Group Leader:** This activity can be adapted to the students' needs and the study group time constraints. The study group leader should decide whether or not she/he wants to skip part of the activity.

**HANDOUT: GUIDELINES FOR WRITING THE RESULTS SECTION**

**Instructions:** Use the questions below to help you write your Chronobiology Results section. However, DO NOT LIMIT YOURSELF TO 1 through 5.

**OPTION 1:**

1. What can be said about **all** biological functions during the normal sleep period?  
Give examples: As shown in Table 1....

In contrast,

2. What can be said about all biological functions during the normal activity period?  
Give examples: As shown in Table 2....

**OPTION 2:**

1. First, what can be said about Biology 155 students and their heart beat during the normal activity and normal sleep periods?
2. Second, what can be said about Biology 155 students and their eye-hand coordination during the normal activity and normal sleep periods?
3. Finally, what can be said about the third function test during the normal activity and normal sleep periods?

**Note to Study Group Leader:** This activity can be adapted to the students' needs and the study group time constraints. The study group leader should decide whether or not she/he wants to skip part of the activity.

## WRITING THE RESULTS SECTION PART IV: GIVING AND RECEIVING FEEDBACK

**OBJECTIVE:** To help students evaluate their classmates' Results section.

**RATIONALE:** By working with the peer feedback form, students will enhance their drafts, and will understand the importance of revising what they have written.

### **PROCEDURES:**

1. Explain to the students that the purpose of this activity is to help them revise their classmates' drafts. Emphasize the importance of giving constructive feedback.
2. Working in dyads, students will exchange what they have written.
3. Students will read what their classmates have written and will give them feedback using the checklist.
4. After students have completed the activity, have two or three dyads share one or two corrections they have suggested.
5. Follow-up activity: Have students rewrite their section using their classmates' comments.

**Note to Study Group Leader:** This activity can be adapted to the students' needs and the study group time constraints. The study group leader should decide whether or not she/he wants to skip part of the activity.

**HANDOUT: PEER FEEDBACK ON THE RESULTS SECTION**

**Instructions:** Use the checklist below to help you evaluate your classmate's Results section.

Reader's Name: \_\_\_\_\_

Writer's Name: \_\_\_\_\_

The writer should have:

- |    |  |     |    |
|----|--|-----|----|
| 1. | written a <b>GENERAL</b> description of the results of the study in the first sentence/s of the section.<br>If you do not see a general description, make a suggestion in writing. | YES | NO |
|----|--|-----|----|

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- |    |   |     |    |
|----|---|-----|----|
| 2. | given <b>SPECIFIC INFORMATION</b> or <b>EXAMPLES</b> regarding the results of the study.<br>If the writer did not include specific information or examples, make a suggestion in writing. | YES | NO |
|----|---|-----|----|

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- |    |  |     |    |
|----|--|-----|----|
| 3. | a. made reference to <b>TABLES</b> or <b>FIGURES</b><br>e.g.: As shown in Table.... or Table 1....   | YES | NO |
|    | b. given <b>TITLES</b> to the <b>TABLES</b> or <b>FIGURES</b>  | YES | NO |
|    | c. Read your classmate's tables/figures and summarize the <b>RESULTS</b> of the study <b>JUST</b> by looking at the figures/tables. If you cannot summarize the results, the tables/figures need to be improved. |     |    |

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## WRITING THE LITERATURE CITED SECTION

**OBJECTIVE:** To help students write the Literature Cited section for the scientific paper.

**RATIONALE:** For most of the students in the Biology class, this is the first time that they are required to hand in the Literature Cited along with the data collection project.

### **PROCEDURES:**

1. Have students work in groups and explain the objective of the activity. Emphasize that **Literature Cited** in Biology is a synonym of Bibliography in the Social Sciences. However, as students will note, biologists arrange their references differently from social scientists.
2. Have students look at the handout: **Literature Cited** and have them discuss any questions they may have about how to write the Literature Cited.
3. Working in pairs, have students look at two of the articles they are going to use in their paper and write a draft of the Literature Cited. Students should exchange what they have written and suggest changes, if necessary.

**Note to Study Group Leader:** This activity can be adapted to the students' needs and the study group time constraints. The study group leader should decide whether or not she/he wants to skip part of the activity.



**HANDOUT: GUIDELINES FOR THE LITERATURE CITED SECTION**

**Instructions:** Working in pairs, look at the Literature Cited below and discuss the arrangement of the references:

1. **Abumrad, N. N., D. Rabin, M. P. Diamond, and W. W. Lacy.** Use of a heated superficial hand vein as an alternative site for the measurement of amino acid concentrations and for the study of glucose and alanine kinetics in man. *Metab. Clin. Exp.* 30:936-940, 1981.
2. **Bergstrom, J., P. Furst, L. O. Noree, and E. Vinnars.** Intracellular free amino acid concentration in human muscle tissue. *J. Appl. Physiol.* 36:693-697, 1974.
3. **Cahill, G. F.** Starvation in man. *N. Eng. J. Med.* 282:668-675, 1970.

Below is an explanation of how you should arrange your references:

1. Number the references (e.g., 1).
2. List the references in alphabetical order, use boldface type:
  - a. First author's last name and initials (e.g., **Abumrad, N. N.**).
  - b. Second author's initials and last name (e.g., **D. Rabin**).
3. Type the title of the article in lower case. (e.g., Use of a heated superficial hand vein as an alternative site for the measurement of amino acid concentrations and for the study of glucose and alanine kinetics in man.)
4. Type the title of the journal in italics or underlined, capitalize first letter in each word (e.g., *Metab. Clin. Exp.*).
5. Type the volume number (e.g., 30:), page numbers (e.g., 936-940).
6. Type the year of publication (e.g., 1981).

## WRITING THE INTRODUCTION: PART I

**OBJECTIVE:** To provide students with a model Introduction and to help students evaluate the section; to give students guidelines on how to write the Introduction.

**RATIONALE:** For all of the students in the Biology 155 class, this is the first time that they have been asked to complete a data collection project. Therefore, modeling and evaluating a model Introduction section will provide students with much needed guidance in how to complete the writing assignment.

### **PROCEDURES:**

1. Have students work in small groups and read the handout: **Sample Introduction**.
2. Using the handout below, students have to analyze the section.
3. When the groups have completed step 2, they should compare their answers.

**Note to Study Group Leader:** This activity can be adapted to the students' needs and the study group time constraints. The study group leader should decide whether or not she/he wants to skip part of the activity.

**HANDOUT: SAMPLE INTRODUCTION**

Several factors determine the way in which different species select a mate. Some animal species choose their mates on the basis of their aggressiveness (Thompson, 1989). In contrast, other animal species choose their mating partners by their ability to produce offspring (Jones, 1991). Instead, human beings have been found to mate with people who are similar to them in terms of intellectual and economic status, physical appearance, and personality traits (Buss, 1985).

When compared to women, men have been observed to pay more attention to variables such as physical attractiveness and personality traits. Buss (1985) found that while men believed that physical attractiveness was the most important attribute in a prospective partner, women sought their partners on the basis of their personality traits. This study sought to investigate whether or not physical appearance has an effect on mate selection.

[Adapted from two student papers.]

**HANDOUT: ANALYZING THE INTRODUCTION**

**Instructions:** Use the ideas below to analyze the sample Introduction.

**A good Introduction section should give the reader background information about your topic. The writer should:**

1. Make a general statement about the paper topic in the first paragraph and in the second paragraph. In the sample Introduction, there are two general statements. Identify them.

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2. Support the generalizations with research studies. Identify two of the studies cited in the Introduction.

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3. Include two or three references in parentheses (author and year of publication). Identify one reference in the Introduction.

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**[IMPORTANT: ALL THE REFERENCES INCLUDED IN THE INTRODUCTION SHOULD APPEAR IN THE LITERATURE CITED.]**

4. Conclude with a purpose statement. This means that the last sentence of the Introduction should tell the reader what the purpose of the study was. Write the purpose statement below.

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**WRITING THE INTRODUCTION: PART II**

**OBJECTIVE:** To give students some ideas on what to pay attention to when they have to summarize an article. (See the Health Science 150 section of this manual for more detailed information on summary writing.)

**RATIONALE:** The Introduction includes very brief summaries of two or three articles. This activity will help make students aware of what to pay attention to when they read an article that has to be summarized.

**PROCEDURES:**

1. Have students work in small groups.
2. Have students read the handout: **Writing Brief Summaries for the Introduction** and discuss any necessary questions.
3. Have students employ the strategies listed in the handout below to summarize the article entitled *A Disappointing Decade of AIDS*.
4. For the following class, have students summarize one of the articles they are planning to use in their Introduction.

**Note to Study Group Leader:** This activity can be adapted to the students' needs and the study group time constraints. The study group leader should decide whether or not she/he wants to skip part of the activity.

**HANDOUT: WRITING BRIEF SUMMARIES FOR THE INTRODUCTION**

**Instructions:** Working in small groups, complete the questions below.

1. Read the **TITLE** of the first article. What does the title tell you?
2. Read the **CONCLUSION** of the article. Does it restate the title?
3. Read through the article, put it down, and summarize it in one or two sentences.

**WHEN YOU SUMMARIZE:**

1. Identify **THE MAIN IDEA** of the article.
2. **PARAPHRASE:** Use your own words.
3. **AVOID "I" "We."** **SHOW** that the article was written by someone else: (Stevens, 1988) or Stevens (1988) found that...
4. **DELETE ALL** unimportant information.

# A disappointing decade of AIDS

Hopes that research would quickly yield a prophylaxis for AIDS, or possibly a cure, appear to be evaporating, together with the belief that infectious disease is historical only.

THE organizers of this year's international AIDS conference, arranged for June in Berlin, are fearful that potential participants from elsewhere will be deterred from taking part by news reports of attacks on foreign visitors to Germany. In a statement last week (see page 6), they sought to reassure visitors by referring to the brave stand on xenophobia taken by the federal German president, Dr Richard von Weizsäcker, among others. The hope seems to be that there will be 15,000 people in Berlin in June, as there have been at earlier annual conferences in this series (which alternates between a US venue and one elsewhere).

In reality, this year may be different for reasons other than participants' fear of being attacked. One obvious difficulty is the general impression that the annual AIDS conferences are no longer a preferred means of describing the results of new research, but instead are occasions of a more theatrical character. To the extent that they throw together researchers in the field and those who suffer from AIDS, or at least are infected by the human immunodeficiency virus (HIV), they are a vehicle by which the patients may express their frustration, even anger, that research has done so little for them.

This year, there may well be even more of that than previously. To put it mildly, AIDS research has lapsed into a kind of silence. That does not mean that nothing is being done, of course. On the contrary, there is a substantial army of people at work on the characterization of the strains of HIV responsible for individual infections, while the detailed parameters of different epidemiological models are being steadily if slowly refined. But it seems a long time since Mrs Margaret Heckler, then the Secretary of Health and Human Services in the US administration, was talking eagerly of a vaccine against HIV. In fact, that was nine years ago next June. It is not surprising that the field is rife with disappointment.

For what it is worth, this is far from being a unique occasion when the high promise of some field of research has turned out to be less attainable than serious people believed. In 1958, for example, *Nature* published a clutch of papers from the UK Atomic Energy Research Establishment at Harwell purporting to have demonstrated that thermonuclear fusion (not the cold kind) could be brought about in a laboratory apparatus (181, 217-233; 1958). Only shrewd Lyman Spitzer of Princeton expressed doubts on

the subject (181, 221-222; 1958). Most of those involved were already sketching the designs of the working fusion reactors they saw being thrown up around the world. Now, nearly half a century later, a great deal has been learned about hot plasmas and their confinement, but nobody would now dare say whether thermonuclear reactors will ever be feasible in the sense of being economic.

AIDS seems now to be in the same case. The obvious prophylactic, a vaccine, must be intrinsically more difficult to develop than Heckler and her advisers could have imagined. How do you set about destroying all T cells harbouring the retrovirus HIV, perhaps as complementary DNA integrated within the genome, without causing an immune deficiency as damaging as that of AIDS itself? If, on the other hand, the pathogenesis of AIDS resembles that of an autoimmune disease, which is plausible enough, it is prudent to remember that there are no systemic prophylactics for other candidate autoimmune diseases.

Quite how a vaccine, if there were one, would be used is also perplexing. Would it be administered to all children before puberty, or to the groups known to be most at risk, and what would be made of it in the poor countries of Africa, where the incidence of HIV infection is alarming, but where health budgets are usually too small for even diagnostic tests for HIV infection to be affordable?

The search for drugs effective in the treatment of patients with AIDS has also been frustrating. Wellcome's AZT, like other inhibitors of DNA replication, is palliative only, and understandably has damaging side-effects. The search for drugs which, perhaps in conjunction with AZT, may offer better protection is promising but necessarily slow. It should be within the power of the pharmaceutical industry to improve on the methods of treating the secondary infections to which AIDS patients succumb, but the frequency of Kaposi's sarcoma in some kinds of AIDS patients is not, as yet, understood.

What, in these circumstances, should be our view of the place of AIDS in the modern world? And how should rich countries like ours respond? To say that the outcome of the research of the past ten years has been disappointing does not imply that research should be abandoned. To understand the pathogenesis of AIDS is an even more important goal now than when it was thought there might be a vaccine around the corner.

So too is a better understanding of the

way in which the existence of a substantial pool of people with serious immune suppression may contribute to the emergence of virulent forms of other infections, tuberculosis for example. Is there really a connection between AIDS and the emergence in New York of tuberculosis strains immune to BCG, for example? But, at least temporarily, the interests of people with AIDS suggests that there should be a more vigorous attempt to treat the secondary infections, symptoms though they are.

That amounts to acknowledging that AIDS will be among us for some time yet, and that we must learn to live with it as safely as we can. That means that the condom is no longer just a contraceptive, but a medicine. To recognize it as such requires a greater degree of openness about sexual practices than many people find palatable. But there is no choice.

There is also an urgent need to meet head-on the anger now common among the community of AIDS patients, especially in the United States. It is an almost palpable phenomenon. Many carriers of HIV believe they have been given a death sentence by their physicians and hold, however irrationally, that the establishment is bent on doing them down; intravenous drug users and male homosexuals, already persecuted as they see it, are naturally the most prone to share this socially corrosive resentment. Wild advocacy at the outset of the epidemic of quarantine for those infected did not help.

How else to blunt this anger except by making sure that AIDS patients are dealt with sympathetically and civilly, and that they are given the best care that can be afforded? That does not imply that AIDS patients are intrinsically more deserving of care than people with, say, some fatal form of cancer. It is merely that they are the unlucky victims of a common fallacy of just a decade ago, the belief that fatal infections had either been eliminated or would soon be eliminated.

Meanwhile, it is only seemly to record that little headway is likely to be made against the incidence of AIDS, in some of the poorer countries of Africa for example. If there were the funds for diagnostic tests, it might be more prudent to spend them in other ways, to combat intestinal diseases in infancy for example. But if things drag on as they are for another decade, that is what will make us feel badly.

John Maddox

Extracts from a talk at Green College, Oxford, 9 February 1993.

**WRITING THE INTRODUCTION: PART III**

**OBJECTIVE:** To help students evaluate their classmates' Introduction.

**RATIONALE:** By working with the peer feedback form, students will enhance their drafts and will understand the importance of revising what they have written.

**PROCEDURES:**

1. Explain to the students that the purpose of this activity is to help them revise their classmates' drafts. Emphasize the importance of giving constructive feedback.
2. Working in dyads, students will exchange what they have written.
3. Students will read what their classmates have written and will give them feedback using the handout: **Peer Feedback on the Introduction.**
4. After students have completed the activity, have two or three dyads share one or two corrections they have suggested.
5. Follow-up activity: Have students rewrite their section using their classmates' comments.

**Note to Study Group Leader:** This activity can be adapted to the students' needs and the study group time constraints. The study group leader should decide whether or not she/he wants to skip part of the activity.



**HANDOUT: PEER FEEDBACK ON THE INTRODUCTION**

**Instructions:** Use the checklist below to help your classmate with his/her Introduction.

Reader's Name: \_\_\_\_\_

Writer's Name: \_\_\_\_\_

**The writer:**

1. Has made a general statement about the paper topic in the first and in the second paragraphs. YES NO  
 If you do not see a general statement, make a suggestion for your classmate to follow.  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

2. Has supported the generalizations with ideas or examples from the literature. YES NO  
 If the writer did not support the statement with studies, make a suggestion.  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

3. Has included two or three references in parentheses (author and year of publication). YES NO  
 If you do not see any references, make a suggestion.  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**[IMPORTANT: ALL THE REFERENCES INCLUDED IN THE INTRODUCTION SHOULD APPEAR IN THE LITERATURE CITED]**

4. Has concluded with a purpose statement. YES NO  
 If you do not see the purpose statement, make a suggestion.  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



## WRITING THE DISCUSSION SECTION: PART I

**OBJECTIVE:** To provide students with a model Discussion and to help students evaluate the section; to give students guidelines on how to write the Discussion section.

**RATIONALE:** For all of the students in the Biology 155 class, this is the first time that they have been asked to complete a data collection project. Therefore, modeling and evaluating a model Discussion section will provide students with much needed guidance in how to complete the writing assignment.

### **PROCEDURES:**

1. Have students work in small groups and read the Sample Discussion below.
2. Using the handout below, students have to analyze the section.
3. When the groups have completed step 2, they should compare their answers.

**Note to Study Group Leader:** This activity can be adapted to the students' needs and the study group time constraints. The study group leader should decide whether or not she/he wants to skip part of the activity.

**HANDOUT: SAMPLE DISCUSSION**

The results of the observations show that there was a relationship between the students' appearance and the partners they selected. In this study, unusual male-unusual female pairs, in particular, were found to be very common (Table 1). This finding is supported by studies by Buss (1985) and Gregg (1980), who showed that there is a tendency for individuals to seek mates with similar characteristics. In contrast, the tendency of opposites to mate has never been reliably demonstrated (Buss, 1985).

This study showed that "common" females were not likely to associate with "unusual" males (Table 2). This could be explained by the fact that "common" males may be considered to be better candidates for marriage. Women may want to marry "common" males because they may seem to be more reliable. Therefore, "common" males may be more likely to succeed in life. Buss (1985) supported this theory in studies that showed that women value the idea of having reliable partners in life.

The observed frequencies of "common male-common female" pairs and "common male-unusual female" pairs were close to their expected values. In these cases, mating could have occurred as a result of random probability.

The results of this study could have been more reliable if a different method of data collection had been used. Instead of having two students observe individuals first and pairs second, couples and individuals could have been observed at the same time. Moreover, while one of the researchers could have recorded the individuals'

appearance, the other could have categorized the couples' appearance. Furthermore, the pairs should have been questioned to find out whether or not they constituted a couple.

The findings reported in this paper suggest that physical appearance has a significant effect on mate selection in human beings.

[Adapted from two student papers.]

**HANDOUT: CHECKLIST FOR EVALUATING THE DISCUSSION SECTION**

**Instructions:** Use the checklist below to analyze the Discussion section.

**The Discussion section should interpret the results and explain how they relate to the existing literature on the topic.**

**A good Discussion section should:**

- 1. Include a general statement about the results of the study in the first paragraph. Has the writer described the results in the first paragraph? YES                      NO  
If your answer is YES, summarize the results in one sentence.

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- 2. Discuss the results of the study in more detail. Has the writer given any specific results? YES                      NO  
If the answer is YES, identify the details.

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- 3. Interpret the results without any reference to prior research. What do the results mean? Has the author interpreted the results? YES                      NO  
If the answer is YES, underline the interpretation.

- 4. Support the findings/interpretation with the literature cited in the Introduction and in the Discussion. How do the results relate to prior studies? Has the author explained how prior studies support his/her findings? YES                      NO

If the answer is YES, explain what prior studies have to say about the results of this study.

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5. **OPTIONAL:** Discuss any problems in the data collection process.  
What were the problems discussed?

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6. Conclude with a generalization.  
Does the paper include a conclusion paragraph?  
What is the generalization?

YES NO

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**WRITING THE DISCUSSION SECTION: PART II**

**OBJECTIVE:** To provide students with questions that will help them write the Discussion.

**RATIONALE:** The questions will help students write the Discussion section of the scientific paper.

**PROCEDURES:**

**Option 1.**

1. Write the questions below on the board.
2. Working in groups, have students answer the questions in paragraph form.
3. When students have completed the activity, have the groups share their drafts and compare them using the Peer Feedback Form.

**Option 2.**

1. Copy the questions below on the board.
2. Using the questions below, students should complete the Discussion section for the following class.
3. Students should compare their drafts using the handout: **Peer Feedback on the Discussion Section.**

**Note to Study Group Leader:** This activity can be adapted to the students' needs and the study group time constraints. The study group leader should decide whether or not she/he wants to skip part of the activity.

**HANDOUT: GUIDELINES FOR WRITING THE DISCUSSION SECTION**

**Instructions:** Consider the ideas/questions below when you write your Discussion.

- A. THINK OF THE MAJOR POINTS YOU WANT TO MAKE,**
- B. FIND LITERATURE THAT SUPPORTS YOUR POINTS**
- C. START WRITING.**

**When you start writing, consider the following questions:**

1. What do the results of the study show? (Make a general statement, REMEMBER the purpose of your study.)
2. Present the results of your study in more detail than in 1. (Look at the figures and narrative you presented in the Results section). Then, interpret the results with no reference to prior research.
3. Discuss what the literature has to say about your findings/interpretation.
4. OPTIONAL: Discuss any problems in the data collection process. (For example, remember that the data were collected the week of the earthquake.) Discuss any changes you would make if you had to collect the data again.
5. Draw a general conclusion.



**WRITING THE DISCUSSION SECTION PART III:  
GIVING AND RECEIVING FEEDBACK**

**OBJECTIVE:** To help students evaluate their classmates' Discussion section.

**RATIONALE:** By working with the peer feedback form, students will enhance what they have written, and will understand the importance of revising what they have written.

**PROCEDURES:**

1. Explain to the students that the purpose of this activity is to help them revise their classmates' drafts. Emphasize the importance of giving constructive feedback.
2. Working in dyads, students will exchange what they have written.
3. Students will read what their classmates have written and will give them feedback using the checklist below.
4. After students have completed the activity, have two or three dyads share one or two corrections they have suggested.
5. Follow-up activity: Have students rewrite their section using their classmates' comments.

**Note to Study Group Leader:** This activity can be adapted to the students' needs and the study group time constraints. The study group leader should decide whether or not she/he wants to skip part of the activity.

**HANDOUT: PEER FEEDBACK ON THE DISCUSSION SECTION**

**Instructions:** Use the checklist below to help your classmate with his/her Discussion section.

Reader's Name: \_\_\_\_\_

Writer's Name: \_\_\_\_\_

In the first paragraph, the writer should have:

1. Made a general statement about the results of the study.  
Has the author made a general statement about the results? YES NO  
If your answer is NO, make a suggestion for your classmate to follow.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2. Presented the results of the study in more detail.  
Has the author given any details about the results? YES NO  
If your answer is NO, make a suggestion for your classmate to follow.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

3. Interpreted the results/findings with no reference to the literature. Has the author interpreted the results? YES NO  
If your answer is NO, make a suggestion for your classmate to follow.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

4. Supported the findings/interpretations with the literature.  
Has the author supported the findings/interpretations with the literature? YES NO  
If your answer is NO, make a suggestion for your classmate to follow.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

5. Drawn a general conclusion.  
Do you see a general conclusion?  
If your answer is NO, make a  
suggestion for your classmate to follow.

YES

NO

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## EVALUATING THE SCIENTIFIC PAPER

**OBJECTIVE:** To help students evaluate whether or not they have successfully completed the scientific paper assignment.

**RATIONALE:** This activity will help students decide whether or not their scientific paper is complete.

### **PROCEDURES:**

1. Give students copies of the handout: **Evaluating your Scientific Paper.**
2. Have students self-evaluate their paper and decide whether they have to make any changes or ask questions.

**Note to Study Group Leader:** This activity can be adapted to the students' needs and the study group time constraints. The study group leader should decide whether or not she/he wants to skip part of the activity.

# HANDOUT: EVALUATING THE SCIENTIFIC PAPER

Use the checklist below to help you determine whether or not your paper is complete.

## **Introduction**

*The Introduction should*

- |   | Yes                      | No                       |
|---|--------------------------|--------------------------|
| (1) Include a general statement about your topic. ....  | <input type="checkbox"/> | <input type="checkbox"/> |
| (2) Contain 2-3 references. ....  | <input type="checkbox"/> | <input type="checkbox"/> |
| (3) Close with "The purpose/goal/objective of this study was to..."<br>Remember to include the words "high point (or zenith)" and<br>"low point (or nadir)." .... | <input type="checkbox"/> | <input type="checkbox"/> |

## **Materials and Methods**

*The Materials and Methods section should*

- |  | Yes                      | No                       |
|--|--------------------------|--------------------------|
| (4) Define what is meant by "normal sleep and activity period." .... | <input type="checkbox"/> | <input type="checkbox"/> |
| (5) Describe each of the three function tests conducted. ....        | <input type="checkbox"/> | <input type="checkbox"/> |
| (6) Be cohesive. ....  | <input type="checkbox"/> | <input type="checkbox"/> |

## **Results**

*The Results section should*

- |   | Yes                      | No                       |
|---|--------------------------|--------------------------|
| (7) Open with a general statement about the results. ....                           | <input type="checkbox"/> | <input type="checkbox"/> |
| (8) Refer the reader to Tables or Graphs [(As shown in Table 1) or (Table 1)]. .... | <input type="checkbox"/> | <input type="checkbox"/> |
| (9) Describe the results of each of the three tests in more detail. ....            | <input type="checkbox"/> | <input type="checkbox"/> |
| (10) Use military time. ....  | <input type="checkbox"/> | <input type="checkbox"/> |

## **Discussion**

*The Discussion section should*

- |  | Yes                      | No                       |
|--|--------------------------|--------------------------|
| (11) Open with a general statement about the results of the study .... | <input type="checkbox"/> | <input type="checkbox"/> |
| (12) Interpret the results (what do the results mean?). ....           | <input type="checkbox"/> | <input type="checkbox"/> |
| (13) Support the findings with the literature. ....                    | <input type="checkbox"/> | <input type="checkbox"/> |
| (14) Include literature directly related to your study. ....           | <input type="checkbox"/> | <input type="checkbox"/> |

## **References**

*The references should*

- |                                      |                              |                             |
|--------------------------------------|------------------------------|-----------------------------|
| (15) Be ordered alphabetically. .... | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
|--------------------------------------|------------------------------|-----------------------------|

## PART III

### HEALTH SCIENCE 150

#### BASIC HEALTH AND SAFETY STUDIES PROFESSOR BEHJAT A. SHARIF

#### Health Science 150, Winter 1994: An Overview

##### Course Description

Health Science 150 is a required lower division general education course. This class is designed to assist students to learn about current health issues, self-assessment, and self-help skills conducive to the enhancement of the quality of their lives.

A total of 35 students were enrolled in HS 150 during the Winter quarter 1994. They represented a cross-section of the language minority population, primarily Latino and Asian students.

##### Content Goals

For the majority of students, with the exception of Health Science majors, this class is probably the only opportunity to formally study about health and well-being. As an introductory course, the class seeks to provide a broadly based overview of various dimensions of health and to encourage a holistic view of health and well-being.

The course emphasizes an increased awareness of individual, social, and environmental responsibility. It examines how behavior is related to health status. Therefore, students are assisted in the critical analysis of health information and in making informed decisions about their health behaviors. A primary focus of the course is to empower students to initiate behavior changes, when needed, to protect, maintain, and promote their own health.

For the purpose of promoting health and self-control, my approach in teaching this class is a focus on health behaviors. The course content is designed to enable students to make decisions and take effective actions to produce healthful outcomes. Through personal experience projects, they identify challenges in the process of behavior change and formulate subsequent solutions. A comprehensive approach is undertaken through analysis of predisposing, enabling, and reinforcing factors and their role in influencing behavior modification.

##### Required Textbook

Hahn, D., & Payne, W. (1994). Focus on Health (2nd ed.), St. Louis: Mosby.

## Course Requirements

Prior to Project LEAP, the course requirements for HS 150 included class attendance, participation in class discussions, two article abstract assignments, and the mid-term and final examinations. Therefore, students who successfully completed the class obtained theoretical information and gained knowledge about health and health-related behavior.

Participation in Project LEAP led to a re-evaluation of the course materials, requirements, and instructional methodology for a more effective approach to teaching language minority students. Furthermore, it facilitated development and implementation of a project related to behavior modification.

## Teaching and Instructional Innovations

The following is an overview of changes made during the Winter quarter of 1994.

### A. Course Introduction and Class Participation

A detailed description of the course assignments and requirements was provided during the first week of the course as the students were preparing to select a behavior to change. Furthermore, discussion of the requirements continued throughout the course as students were completing their assignments in phases. To reduce inhibition in class participation, activities were undertaken to overcome anxiety and to provide a supportive and nonjudgemental class atmosphere.

Since student class participation generally involved discussion of personal information, boundary breaking activities were utilized to facilitate student interaction. The following game was used in class to familiarize students with one another.

Students were asked to give themselves a big plus on a piece of blank paper and respond to the four directions stated on each sides of the plus. To introduce myself, I participated in the game by completing the exercise on the board.

Draw what you do the best.

Draw what you would like to do the best.

List 3 adjectives that describe you.

State one challenge and one accomplishment significant to you.

A humorous exercise, the drawing makes students interested in the activity. Upon completion, each student gives the paper to a classmate (preferably the partner they selected for their behavior modification project) to use for the class introduction.

Student interaction was emphasized throughout the course. Students were asked to state their names whenever they participated in class discussions. This practice enabled me as well as the students to refer to each other by their given names, resulting in an environment of closeness and comfort in class. Students were encouraged to communicate with each other which created an interactive and participatory class atmosphere. Language minority students were assured that the class was understanding of their specific needs, such as the necessity of taking time to think out their questions and comments.

## **B. Course Instruction**

Lecture strategies and discussion of the key concepts involved an expanded use of the board, transparencies, and definition of terms to facilitate student learning. As a result of Project LEAP's focus on language development, my lecture preparation was significantly altered. I examined the course material in terms of its content and language demands and prepared appropriate lecture outlines and materials for student activities to improve their analytical and study skills. In reviewing my lecture outlines, I highlighted two types of words: "content" (vocabulary that health professionals use) and "language" (vocabulary that language minority students might not know) and provided explicit definitions for the students. During my lectures, students were encouraged to ask for spelling clarification or definitions of terms whenever it was necessary.

Students were instructed about effective note-taking and were provided with a handout on notetaking guidelines and a sample of lecture notes of one of my lectures. I explained major requirements for taking good notes from lectures and from reading; I also emphasized that students must identify the thesis and separate main ideas from the supportive evidence. I discussed how to outline and use margins in their notes. I encouraged all students to take notes in class since the lectures contained material outside of the text which was covered on the examinations. Regular weekly meetings with the language specialist and the study group leader provided feedback about lectures and identified specific areas in which students needed further explanation.

## **C. Sensitivity to Language Demands**

Project LEAP promoted a philosophy of language appropriate instruction. All course materials were reviewed by the language specialist, including the course syllabus, handouts, and examinations for necessary revisions to prevent confusion related to discipline jargon or terms unfamiliar to the language minority students. Course observation and feedback by the language specialist brought to



my attention a need to provide definitions of such terminology as "log", "reference" or vocabulary such as "infirmity" when they were used in my lectures or class discussions.

#### **D. Review Sessions/Discussions**

For enhancement of the writing requirements, I emphasized the development of oral skills. Review of the previous session involved cooperative learning through group discussions. Students were divided into small groups and I assigned a different list of questions to each group. The group members were required to provide their answers to the class. A question and answer period followed each group's report and I added any important information not covered by the students. Students were encouraged to take notes as preparation for examinations.

#### **E. Writing Assignments**

Prior to Project LEAP, the writing assignment for HS 150 involved preparation of two abstracts. For each abstract, student were asked to do library research, select a health-related article, and prepare a one page report which included a summary of the article and the student's personal reflection and opinion of the article. Students were graded when the abstract was submitted. The first abstract was due in third week of the quarter and second abstract (on a different topic) in the second half of the quarter.

The Project LEAP version of HS 150 involved extensive writing. In addition to two abstract writing exercises, students were required to write a research paper. The paper involved students reporting on their theoretical and experiential investigations about a behavior modification project. The paper was composed of five sections: 1. Introduction; 2. Review of the literature; 3. Discussion; 4. Conclusion and Personal Reflections; and 5. List of References.

After I completed lecture and discussions of the chapter on behavior modification, the students were asked to examine their health behavior and do the following:

- a. Identify one behavior they felt was in need of change.
- b. Select a partner to give and receive the support. (After students submitted the type of behavior they wanted to change, I put students with similar areas of interest together for small group discussion and selection of a partner.)
- c. Sign a self-contract for behavior modification and state their own responsibilities and their partner's responsibilities.

- d. Keep a log on the selected health behavior during the third week of the quarter (just prior to implementation of the behavior change) and eighth week (after behavior modification was attempted for a month, during the 4th to 7th weeks of the quarter).
- e. Complete library research on the topic related to the behavior selected to modify.
- f. Submit a draft of their paper for instructor evaluation and feedback.
- g. Submit the final paper, a completed project report.

The paper was submitted in two phases. The first draft was composed of the introduction, review of the literature, list of references and copies of the articles and sources used (students were required to highlight important information in the articles), as well as the pre-behavior change log. I evaluated students' first drafts of their research paper and provided comments for improvement. Students were required to incorporate my comments in the preparation of the final paper and attach the first draft to the final paper.

#### **F. Written Guidelines**

Detailed written guidelines were provided to facilitate students' work. Collaboration between the instructor, the language specialist, and the study group leader resulted in the development, preparation, and revisions of guidelines for the lecture agenda, study group activities, writing the research paper, article summary, notetaking, and office visit requirement.

#### **G. Modeling**

In addition to explanation of principles and concepts, students were provided with prototypes to use as models. For example, when effective notetaking and writing an abstract were discussed, students were given an example of the notes taken by the language specialist from my lecture. Also, when writing an abstract was explained, students received a prepared model abstract with the article attached to it. Other modeling activities included role playing. For example, during my lecture about effective listening skills and assertive communication, the students and I performed the scenarios I presented to the class.

#### **H. Peer Support**

Peer support serves as a highly influential factor in behavioral modification. Such influence can offer motivation for health actions and making healthy behavior more possible to attain. Each student selected a partner for the purpose of support and feed-back in analyses of the logs and review of each other's

papers. The peer support extended to other class activities such as sharing notes, studying for examinations, discussion, and response to the instructor's questions, etc. Students found the peer support valuable and reported that the process helped them to "find a very helpful friend."

### **I. Library Search**

A tour of the university library was provided to familiarize students with library resources. Students learned about print resources such as the Social Science Index, Psychological Abstracts, ERIC, and Index Medicus. They also learned about on-line bibliographic database such as CD-ROM, CARL, and LEXIS/NEXIS. Students were offered the opportunity to practice accessing information on the topics of their papers. Students were required to have a minimum of five references, two of which had to be health-related refereed journals. This activity enabled students to gather materials and resources required for the successful completion of their papers.

### **J. Office Visit**

Prior to Project LEAP, although office visits were always encouraged, generally the office visits from students enrolled in HS 150 were sporadic. Occasionally, students came to see me with questions related to the examinations.

The Project LEAP HS 150 students were informed that office visits would enhance the portion of their grades assigned to class participation. Additionally, the behavioral modification project, which was an on-going activity, resulted in students having questions outside of the class time period. Students were provided with a handout to create a sense of comfort and direction for office visits. Students came to my office both individually and with their partners for clarification of course work and discussion of personal health issues. Office visits significantly increased, with the majority of the students visiting me more than once. In three cases, serious health behavior problems were discussed by students. These students requested my assistance in helping them with their drug addictions, and I referred them to rehabilitation and discussion with their counselors.

### **K. Examinations**

As a result of Project LEAP, in addition to the usual objective questions, short essay questions were included on the examinations. Additional credit points were provided to encourage students to write their responses to essay questions. I must say that the students' performance on essays was impressive. All students except one responded to the essay questions and the majority of the students earned most of the points assigned to this portion of the examinations.

## **L. Creative Project**

I believe that language minority students can benefit not only from a course that is tailored to enhance oral and written language skills, but also a class that encourages expression of their ideas. I encouraged students to select a current health issue and develop an original and creative project to convey a message about health protection and promotion. Students' projects were evaluated on the basis of originality, creativity, presentation, and significance of the message conveyed. The main theme of the most creative projects involved topics such as stress, procrastination, drugs, and pollution.

## **Course Outcomes**

Students performance in this HS 150 was exceptionally promising. Quantitative evaluation indicated that compared to HS 150 classes I have taught before, the grades improved significantly. The percentage of students who earned As and Bs increased and the number of Cs and Ds decreased. In terms of qualitative evaluation of student performance, the class provided a highlight in my teaching experience. Utilizing the Project LEAP philosophy and resources, I was enabled to empower students for a valuable learning experience related to the challenges and rewards of conducting a behavior modification project. The students became very engaged in their research papers, I believe, because the assignment required them to combine personal experience with library research. Therefore, the main objectives of the HS 150 class related to self-assessment and development of self-help skills were met. The input of the language specialist and the study group leader was also invaluable. The class activities created a close tie between me and the students and among the student partners making this HS 150 class a "special" experience.

CALIFORNIA STATE UNIVERSITY, LOS ANGELES  
HEALTH SCIENCE DEPARTMENT  
HS 150 BASIC HEALTH AND SAFETY STUDIES  
Winter 1994

Instructor: Dr. Behjat A. Sharif  
FA 233, 343-4747

Class Hours: T & R 9:50 am - 11:30 am

Office Hours: M & R 12:00 - 1:00 pm  
T 4:00 - 6:00 pm

**COURSE DESCRIPTION:**

This class seeks to provide students with the opportunity to learn about current health issues, self-assessment, and self help skills. Students will examine how behavior is linked to health and will present approaches towards changing behavior in ways which will enhance the quality of life. Encouragement of students to focus upon healthier lifestyles will assist them in their pursuit of personal health and wellness. This is an introductory course and students are encouraged to enroll in upper division Health Science courses to acquire more specific and in-depth information.

**REQUIRED TEXT:**

Hahn, D. B., & Payne, W. A., (1993). Focus on Health. (2nd edition), St Louis: Mosby.

**COURSE OBJECTIVES:**

Upon successful completion of this course, the student will:

1. Display a working knowledge of general health information and ability to identify current health issues.
2. Develop a holistic view of health, and an increased awareness of responsibility to self, others, and the environment.
3. Make informed decisions when considering risk taking behavior.
4. Analyze health information critically.
5. Be able to discuss the current state of health care, focusing on self-care, health care costs, and the health care industry.
6. Understand the influence of society and culture on an individual's health.
7. Initiate change when needed to protect, promote, and maintain health

**CONTENT OUTLINE:**

**Chapter**

Week 1	Introduction to Course: Get Acquainted Current Health Issues, Possible risk factors Concepts of health, wellness, health promotion and disease prevention  * Library research process (Jan 6th)	
Week 2	Behavior change: Theories and implications Health Belief Model, Self-efficacy and Locus of control Predisposing, enabling and reinforcing factors Health risk Appraisals Individual and societal responsibility  * 1st article assignment(Jan 11th) * Committing and contracting for positive health behavior	1
Week 3	Mental health: The environment within Foundations of emotional well-being Maladaptive and positive coping mechanisms  * Keep a log * Library research/references	2
Week 4	Stress: Coping and Management Skills Effective communication skills Conflict management	3
Week 5	Potentials for Health and Performance: Physical Fitness Nutrition Weight Control  * Paper due (Intro, Lit. review & references)	4 5 6
Week 6	Use and Abuse of Drugs: Alcohol Tobacco and Caffeine Other Psychoactive Drugs  * Mid Term Exam	7 8 9
Week 7	Afflictions and Diseases: Cardiovascular Diseases Cancer and other Noninfectious Conditions Infectious diseases AIDS and Sexually Transmitted Diseases	10 11 12
Week 8	Social Support and Well-Being: Intimacy and Sexuality Relationships and Commitment Pregnancy, Child Birth and Birth Control  * Keep a log	13 14 15

Week 9	Health Protection: Consumer Health Environmental Health Safety and Accident Prevention	16 17
Week 10	Lifetime Transitions: Aging Dying and Death Concluding remarks: Health care and health promotion; promises and problems	18
	* 2nd article assignment(March 8th) * Term Paper due (March 10th)	

Week 11 Final exam

## COURSE REQUIREMENTS:

### Attendance

It is expected that students attend every class session. Should you, for some unexpected reason, be forced to miss a particular class session, contact the instructor prior to class to inform her of your absence. Excessive absences do not contribute to effective learning and will be reflected by a negative evaluation of your contribution to class, and ultimately in the final course grade. Each absence will result in losing 2 points in computation of final grade.

### Participation

Interaction in class is essential. The acquisition of new information, exchange of ideas, interpretation of philosophies, and individual approaches to issues require that students give of themselves and their ideas. Each student has valuable information and experience to share and the value of the class will be enhanced by the interaction among the students. Students are evaluated on the basis of their attentive and active role in sharing their points of view about the topics discussed in class.

### Writing Assignments

All written assignments are to be typed double spaced, single space only when appropriate, proofread and corrected before they are handed in to the instructor. If more than one page, pages are to be numbered with the student's name on the first page. Staple pages; DO NOT use a binder, folder, or any other report cover. It is the student's responsibility to keep a photocopy of each completed assignment.

### Term Paper/Project

Take sometime to identify and examine your own health behaviors. Select one of your health behaviors that you feel is in need of change. Keep a log of your selected behavior during the 3rd week of the class. Then, try to modify that behavior for four weeks (week 4th through 7th). Keep a second log during the eighth week of class to identify any change in your selected behavior. Submit an approximately 5 pages written report on your project. See class handout for a detailed explanation and step by step directions for this assignment.

completed assignment is evaluated according to the following:

- a) Typed, double spacing, neatness.....5 pts
- b) Format, Grammar, spelling.....5 pts
- c) Content quality.....25 pts
- d) Logs.....2X5.....10 pts
- e) Attached copy of the article.....5 pts

Late assignments will be penalized two (2) points per day. Ask the department secretary to record the time and date on the assignment before placing it in the instructor's mailbox.

Examinations

There will be a mid-term and a final written examination, each consisting of 100 objective (Multiple Choice, True/False) questions. Students are required to bring a SCANTRON sheet and #2 pencil. Questions are taken from the text, lectures, and class discussions. Final exam is not cumulative and covers materials developed since the midterm. Test make-up will not be permitted unless prior arrangements have been made, and valid reasons and documentation are presented to the instructor.

**CLASS EVALUATION:**

Points

Attendance and class participation .....	30
Article assignments .....2X10.....	20
Mid-Term Exam.....	100
Final Exam.....	100
Term Paper.....	50
<b>TOTAL .....</b>	<b>300 Points</b>

**OPTIONAL ASSIGNMENT: Development of Original Health Related Materials (10 points)**

Select a current health issue and develop a project to convey a message about health protection and promotion. Use your creativity to capture people's attention. Create a neat production, assume your project is to be marketed locally, nationally or internationally.

Your work will be evaluated on the basis of originality (2.5 pts), creativity (2.5 pts), presentation (2.5 pts) and the significance of the message you convey(2.5).

**GRADING SCALE:**

A	90% +	270 - 300
B	80% +	240 - 269
C	70% +	210 - 239
D	60% +	180 - 209
F	Bellow	180





Four Week Self-Contract  
Plan to \_\_\_\_\_

I \_\_\_\_\_ have decided to \_\_\_\_\_  
\_\_\_\_\_ during the 4th, 5th, 6th,  
and 7th week of this quarter. My helper will be \_\_\_\_\_.

My responsibilities are:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. To record my data in my log everyday at \_\_\_\_\_ O'clock  
(during the 3rd and 8th week of the quarter)

My helpers responsibilities are:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. To help my review results of this action plan.

Signed \_\_\_\_\_ Date \_\_\_\_\_

Helper \_\_\_\_\_ Date \_\_\_\_\_

## GUIDELINES FOR BEHAVIOR MODIFICATION PROJECT

This quarter you will be asked to:

1. select a health behavior that you feel is in need of change,
2. attempt to modify it, and
3. write a 5-page, double-spaced typewritten report following the specifications below.

The report will be written in two phases, as indicated below:

Phase 1. Introduction and Statement of Purpose, Review of the Literature, and References.

**DUE ON FEBRUARY 3**

Phase 2. Complete report including:  
the revised Introduction and Statement of Purpose,  
the revised Review of the Literature,  
Strategies and Motivators Employed to Help Me Modify My Behavior,  
Results, Discussion, and Personal Reflections, Conclusion,  
References, and Student Logs.

**DUE ON MARCH 10**

### SECTION I: INTRODUCTION AND STATEMENT OF PURPOSE

1. The Introduction should comprise two to three paragraphs and should seek to familiarize the reader with the behavior you plan to modify. What is known about the behavior you want to modify? How does the behavior you want to modify affect society in general? How does the behavior affect you in particular? Why is modifying your behavior important to you?
2. In the last sentence of your introduction, you should state the purpose of your project. Tell the reader: The purpose of this project was to....

### SECTION II: REVIEW OF THE LITERATURE

1. This section should seek to present the evidence relating to the behavior that you are trying to modify.
2. For the purposes of writing this section, you will have to (a) go to the library and gather **5 articles** relating to the behavior you want to modify and (b) summarize the articles in paragraph form.

3. The Review of the Literature should form a cohesive piece. This means that the summaries of articles in the Review of the Literature should be connected and should seek to form a sound case: What do the articles say about the behavior you want to modify?
4. For the Review of the Literature, you have to select at least:
  - a. TWO articles from the *Journal of Health Education*, and/or the *Journal of School Health*,
  - b.. TWO articles from magazines such as *American Health, Prevention, Psychology Today, Time, Newsweek, US News and World Report*, and
  - c. An excerpt from the textbook.

### **SECTION III: STRATEGIES AND MOTIVATORS EMPLOYED TO HELP ME MODIFY MY BEHAVIOR**

1. This section should describe the strategies and motivators that you employed to help you modify your behavior. Describe the support you received. Did anyone support you in your attempt to modify your behavior? If so, how often did you receive help and what kind of help did you receive?

### **SECTION IV: RESULTS, DISCUSSION AND PERSONAL REFLECTIONS**

1. This section should be written after you have completed your Introduction, Review of the Literature, and the two logs (weeks 3 and 8).
2. Describe the results of your behavior modification project. Look at the logs completed during the third and the eighth week of class. Compare them and describe them. What did you do the third week of class? What did you do the eighth week of class? What behavior changes can be observed? Be objective in describing the results.
3. After presenting the results of your project, you need to discuss what they mean. This means that you need to interpret the results in terms of the Review of the Literature section.
4. In this section, you have to decide whether your findings support or reject what the literature (Section II) has to say about the behavior you attempted to modify.
5. Discuss the consequences of your project. How did the project affect the behavior you attempted to modify? How difficult/easy was it for you to complete the project? How helpful was the project in helping you modify your behavior?

## SECTION V: CONCLUSION

1. This section should comprise no more than two paragraphs. In this section, you should seek to draw a clear, logical conclusion based on the logs and the articles presented in the project.
2. Generalize the results of your project. What does your project mean to other people?
3. The last paragraph should discuss the kind of work that would be necessary to help you sustain your "new" behavior or to help you to continue to modify your behavior.

## WRITING THE REFERENCES USING APA (AMERICAN PSYCHOLOGICAL ASSOCIATION) STYLE

Below is an example of how your References section should look:

- AIDS the second decade. (1991, June 17). *US News and World Report*, pp. 20-22.
- Hahn, D. B., & Payne, W. A. (1993). *Focus on Health* (2nd ed.). St. Louis: Mosby.
- Ward Moser, P. (1993, March/April). In cod we trust. *Health*, pp. 35-37.
- Wood, S., & White, G. (1991). Health hazards of passive smoking: A review. *Journal of Health Education*, 22(5), 303-306.

## GUIDELINES FOR WRITING YOUR REFERENCES

### **A. Article with no author.**

AIDS the second decade. (1991, June 17). *US News and World Report*, pp. 20-22.

Elements of the reference should appear in this order:

1. Title of the article (capitalize the **first letter** of the first word only, e.g., **AIDS the second decade**).
2. Year and date of publication in parentheses (e.g., **1991, June 17**).
3. Title of the magazine/journal in italics or underlined (e.g., *US News and World Report*).
4. Page numbers (e.g., **pp. 20-22**).

## B. Textbook.

Hahn, D. B., & Payne, W. A. (1993). Focus on health (2nd ed.). St. Louis: Mosby.

Elements of the reference should appear in this order:

1. Author/s last name/s and initials (e.g., Hahn, D. B., & Payne, W. A).
2. Year of publication in parentheses (e.g., 1993).
3. Textbook title in italics or underlined (e.g., Focus on health).
4. Edition number (e.g., 2nd ed.).
5. Place of publication followed by a colon (e.g., St. Louis:).
6. Publisher's name (e.g., Mosby).

## C. Article with author's name.

Ward Moser, P. (1993, March/April). In cod we trust. *Health*, pp. 35-37.

Elements of the reference should appear in this order:

1. Author/s last name/s and initials (e.g., Ward Moser, P.).
2. Year and month of publication in parentheses (e.g., 1993).
3. Title of the article (capitalize the first letter of the first word only, e.g., In cod we trust).
4. Title of the journal (capitalize the first letter of every word and italicize or underline the title of the journal (e.g., *Health*)).
5. Page numbers (e.g., 35-37).

D. Article cited in the Journal of Health Education or Journal of School Health.  
Wood, S., & White, G. (1991). Health hazards of passive smoking: A review.  
*Journal of Health Education*, 22(5), 303-306.

Elements of the reference should appear in this order:

1. Authors' names (e.g., Wood, S., & White, G).
2. Year of publication in parenthesis (e.g., 1991).
3. Title of the article (capitalize the first letter of the first word only, e.g., **Health hazards of passive smoking**).
4. Journal title (capitalize the first letter in every word and underline or italicize the journal title,  
e.g., *Journal of Health Education*).
5. Volume (italicized or underlined, e.g., 22).
6. Number in parentheses [e.g., (5)].
7. Page numbers (e.g., 303-306).

## COMPLETING THE LOGS

**OBJECTIVE:** To provide students with a model log and to help students evaluate it.

**RATIONALE:** The information included in the logs will be used for the purposes of writing the Results section. Therefore, completing the log is critical to the successful completion of the Results section of the writing assignment.

### **PROCEDURES:**

1. Distribute copies of the handout: **Model Log**.
2. Copy the questions below on the board. Working in groups, students will analyze the log organization.
  - A. What is the behavior that the writer wants to modify?
  - B. How many sections is the log organized into?
  - C. How detailed is the information included in the log?

HANDOUT: MODEL LOG

Behavior Modification Project  
Week 3  
Type of Behavior: Coffee Drinking  
MONDAY

WHEN	WHERE w/WHOM	WHY	HOW I FELT	OTHER DETAILS
• 8am	• at home	breakfast time	Ok	
• 10am	• on campus	bored	Ok	
• 1:00pm	• on campus	after lunch	wound-up	
• 2:00pm	• on campus	bored	wound-up	
• 4:00pm	• on campus	between classes	too wound-up	
• 7:00pm	• at home w/dad	we're talking	stomach-ache	
• 8:00pm	• by myself at home	reading a book	can't get to sleep	

# HEALTH SCIENCE 150 MASTER PLAN - WINTER 1994

## COURSE SCHEDULE

## STUDY GROUP SCHEDULE

### WEEK

I Introduction to course:  
Get Acquainted,  
Current health issues,  
Concepts of health

Library Activity: A Scaffolding  
Approach to Library Research  
Pre-Project LEAP Reading/Writing  
Assignment

II Pre-Project LEAP Writing Assignment  
Review Session  
Behavioral Change: Theories and  
Explanation  
Project LEAP: Guidelines  
Assignment: Students start thinking about  
a behavior they want to change

Review Session  
Individual and Societal Responsibility  
Committing and Contracting for  
positive health behavior: Contract  
is signed  
Notetaking Strategies: Discussion

III Review Session  
Mental Health: The Environment within  
Students turn in references for the Project  
Students keep a log

Review Session  
Mental Health: The Environment within  
Writing the Review of the Literature:  
Summary Writing  
Students continue keeping the log

Introduction to Project LEAP  
Group Building

Group Building

Assessing Your Notetaking Strategies

Assessing Your Reading Strategies  
Lecture Notetaking  
Model Lecture Notes

Assessing Your Notetaking Strategies  
Improving Reading Skills: Parts I & II

Completing the logs  
RPM LADE  
Word Wiz

Preparing Reading Guides  
Writing A Summary: Parts I & II  
RPM LADE  
Reading Accountability



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IV Review Session  
Stress: Coping and Management Skills  
Effective Communication Skills

Review Session  
Stress: Coping and Management Skills  
Effective Communication Skills  
Conflict Management

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RPM LADE  
Writing a Summary Parts: III & IV  
Leaping to Other Content Areas: Writing a Summary

Writing the Introduction and Statement of Purpose:  
Parts I, II, and III  
Leaping to Other Content Areas: Writing an Introduction  
and Statement of Purpose  
RPM LADE  
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V Review Session  
Potentials for Health and Performance:  
Physical Fitness, Nutrition, Weight  
Control  
Paper Introduction, Review of the  
Literature  
References are due

Review Session  
Potential for Health and Performance:  
Physical Fitness, Nutrition, Weight  
Control

-----  
RPM LADE  
Word Dissection

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RPM LADE  
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VI Midterm

Use and Abuse of Drugs: Alcohol,  
Tobacco, and Caffeine: Other Psychotic  
Drugs  
Review Session

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Debriefing  
Writing the Strategies and Motivators Section

-----  
Writing the Review of the Literature: Part II (revisited)  
Summary Writing I, II, III, and IV (revisited)  
RPM LADE  
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VII Afflictions and Diseases: Cardiovascular  
Diseases, Cancer and other Noninfectious  
Conditions. Infectious diseases: AIDS  
and Sexually Transmitted Diseases  
Review Session

Afflictions and Diseases: Cardiovascular  
Diseases, Cancer and other Noninfectious  
Conditions. Infectious Diseases: AIDS  
and Sexually Transmitted Diseases  
Review Session

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RPM LADE

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RPM LADE  
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VIII Review Session  
Social Support and Well-being:  
Relationships and Commitment,  
Intimacy, and Sexuality, Pregnancy,  
Childbirth, and Birth Control  
Students keep a log

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Review Session  
Social Support and Well-being;  
Relationships and Commitment,  
Intimacy, and Sexuality, Pregnancy,  
Childbirth, and Birth Control  
Students continue with log

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XI Review Session  
Health Protection: Consumer Health,  
Environmental Health, Safety and  
Accident Prevention

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Health Protection: Consumer Health,  
Environmental Health, Safety and  
Accident Prevention.  
Review Session

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X Lifetime Transitions: Aging, Dying  
and Death  
Review Session

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Concluding Remarks

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Getting Ready to Write the Results, Discussion, and Personal  
Reflections Section  
Reducing the data in the logs

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RPM LADE

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Reducing the data in the logs (continued)  
Guidelines for Writing the Results, Discussion, and Personal  
Reflections Section.

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Steps in Writing the Results, Discussion, and Personal  
Reflections Section: Checklist  
Leaping to Other Content Areas: Results, and Discussion  
Writing the Conclusion: Parts I & II  
Leaping to Other Content Areas: Conclusion  
Self-Evaluating Your Behavior Modification Project:  
Checklist

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RPM LADE

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RPM LADE

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## Health Science 150: Selected Exercises and Activities

- Lecture Notetaking  
Handout: Notetaking Strategies  
Handout: Model Lecture Notes
- Assessing Your Notetaking Strategies  
Handout: Assessing Your Notetaking Strategies
- Assessing Your Reading Strategies  
Handout: Assessing Your Reading Strategies
- Improving Reading Skills: Part I  
Handout: Steps in Reading a Textbook Chapter
- Improving Reading Skills: Part II
- Preparing Reading Guides  
Handout: Sample Reading Guide
- Word Wiz
- A Scaffolding Approach to Library Research  
Handout: A Scaffolding Approach to Library Research  
Handout: Using the Education Index  
Handout: Using CD-ROM Computers  
Handout: Using CARL  
Handout: Using LEXIS/NEXIS
- Writing a Summary: Part I  
Handout: Model Summary  
Handout: Evaluation Checklist for Summary Writing
- Reading Accountability
- Writing a Summary: Part II  
Handout: Strategies for Summary Writing
- Writing a Summary: Part III  
Handout: Summary Evaluation Activity  
Handout: Eight Easy Steps to Evaluating a Summary

- Writing a Summary: Part IV  
Handout: Writing a Cohesive Summary  
Handout: Connecting Words
- Word Dissection
- LEAPING to Other Content Areas: Summary Writing  
Handout: Writing A Summary
- Writing the Review of the Literature: Part I  
Handout: Model Review of the Literature
- Writing the Review of the Literature: Part II  
Handout: Organizing the Review of the Literature Section
- LEAPING to Other Content Areas: Review of the Literature  
Handout: Writing a Literature Review
- Writing the Introduction and Statement of Purpose: Part I  
Handout: Model Introduction and Checklist
- Writing the Introduction and Statement of Purpose: Part II
- Writing the Introduction and Statement of Purpose: Part III  
Handout: Assessing the Introduction and Statement of Purpose
- LEAPING to Other Content Areas: Introduction and Statement of Purpose  
Handout: Writing a Introduction and Statement of Purpose
- Writing the Strategies and Motivators Section  
Handout: Model Strategies and Motivators Section
- Getting Ready to Write the Results, Discussion, and Personal Reflections Section:  
Reducing the Data in the Logs  
Handout: Sample Data Reduction Sheet
- Guidelines for Writing the Results, Discussion, and Personal Reflections Section  
Handout: Steps in Writing the Results, Discussion, and Personal Reflections Section  
Handout: Checklist for the Results, Discussion, and Personal Reflections Section
- LEAPING to Other Content Areas: Results and Discussion  
Handout: Writing up a Results and Discussion Section
- Writing the Conclusion Section: Part I  
Handout: Model Conclusion

- **Writing the Conclusion Section: Part II**  
Handout: Steps in Writing the Conclusion Section
- **LEAPING to Other Content Areas: Conclusion**  
Handout: Writing a Conclusion
- **Self-Evaluating Your Behavior Modification Project**  
Handout: Health Science Behavior Modification Project - Checklist

## LECTURE NOTETAKING

**OBJECTIVE:** To make students aware of their notetaking strategies the first week of class. To help students improve their notetaking strategies through modeling, practicing, evaluating, and reinforcing.

**RATIONALE:** Notetaking is a useful study aid that allows students to record information to be remembered for a test or ideas to be applied to a writing assignment.

### PROCEDURES:

1. Have students work in pairs and answer the questions below:
  - A. How long are your notes?
  - B. Do you use any abbreviations or symbols when you take notes in class? If so, list them.
  - C. Do you organize your notes in a particular way? If so, describe how you organize them (in outline form, using headings and subheadings etc.) using complete sentences or isolated words.
  - D. Before going to class, do you look at the syllabus to remind yourself of the topic of today's lecture?
  - E. After class, do you read your notes to review what the professor presented in class?
  - F. Can you summarize your notes in one or two sentences?
2. Distribute the handout: **Notetaking Strategies**. Working in groups, students will read the handout and ask any questions.
3. Give students the handout: **Model Lecture Notes**. Have them analyze the notes using the questions below:
  - A. Do you see two margins? If so, how are they used?
  - B. What are some of the abbreviations and symbols used by the student?
  - C. Do you think you can summarize the lecture by looking at the student's notes? If so, summarize the lecture content in one or two sentences.
  - D. Do you have any questions to add?:
4. Students should share their lecture notes, compare them to the model lecture notes, and decide what changes they should make in the way they take notes in class.
5. Follow-up activity: The second week of class students will share and evaluate their notes using the Handout: **Assessing Your Notetaking Strategies**.

**HANDOUT: NOTETAKING STRATEGIES**

Taking notes will help you pay attention in class.

**In Health Science 150, pay special attention to:**

- A. The lecture **THESIS/MAIN IDEA** which is introduced by such expressions as **PLEASE NOTE, REMEMBER, or PLEASE UNDERLINE...**
- B. What is written on the board.
- C. The **CONCLUSION** of the lecture, when the lecture thesis/main idea is restated.
- D. The **BEGINNING** of the class period, when:
  1. the main idea of the previous class is restated, and
  2. the professor has a 10-15 minute review session.

**Before the professor starts lecturing:**

1. Read the syllabus and identify what **today's topic is**.  
This will help you focus on the topic of the day.
2. Date and label your notes at the top of the page.
3. Draw an imaginary margin and keep all lecture notes to one side. Use the other side for elaboration (writing more information about the topic) and clarification (writing questions or comments).

Add your suggestion: \_\_\_\_\_

**While the professor is lecturing:**

1. Outline, but do not worry about following perfect form. Indent supporting details and examples under main ideas.
2. If you fall behind, skip spaces and write a "lost signal" (e.g., ??, COMPLETE!!) to remind you to ask someone what you missed.

3. Summarize ideas, except when definitions and formulas are given.
4. Abbreviate, use symbols, and skip articles (the, an, a) and verbs (have, is, are).
5. Star (\*) important points in the lecture.
6. Pay attention to how the professor structures his/her lecture. Specifically, pay attention to:
  - A. The words the professor uses to emphasize main ideas/important points (e.g., **Please Note, Remember...**).
  - B. How many times, if any, the professor repeats the concepts in the lecture.
  - C. Whether or not the professor repeats the main idea of the lecture at the end of the session. (Do not close your books before the class is over; very often professors will present the main idea of the lecture at the end of the lecture!)
  - D. Whether or not the professor has an outline on the board. If you see an outline, copy it!

Add your suggestion: \_\_\_\_\_

**After the lecture is over:**

1. Read your notes and fill in any gaps.
2. Review your notes. Remember that in Health Science 150 the professor will start the session with a 10-15 minute review session that counts toward the final grade.
3. Think of a summary sentence that contains the main ideas of the lecture.
4. Write the summary sentence at the top or at the bottom of your notes.

Add your suggestion: \_\_\_\_\_



LKS 1-11-94 H.S.

①

\* Review Session imp for Test! 1.

1. def health (h) dynamic not static
2. holistic h.
3. > source of h. problems = life style factors contributing to status of h.
5. Top 2 causes of death
  - a. heart disease (c.v.d)
  - b. cancer
6. (A) develop' stages & how they relate to h.
7. > responsibility (R) of adulthood
 

R in school / home / work
8. Empowerment = ↑ control of what U do/are
9. Focus of work = imp.

## \* Today's Lecture

Study: what makes people healthy?

· cf to us ~ pop.

Findings: healthy = simple life style (A)

· sleep 7-8 hrs / night· eat breakfast every day

· don't eat hot meals

· ✓ smoke

· ✓ /moderately drink

· physical activity regularly

Conclusion = 70% pop 5+ (A) add 6 yrs. to life

## High Risk Behavior

1. smoking
  2. alcohol abuse
  3. poor safety skills accidents & sex practice
  4. high stress.
  5. hypertension = HBP (high blood pressure)
  6. dietary habits
  7. exercise <
- poor <

## Factors Contributing to HBP

HBP ③

Factors

1. predisposing
2. enabling
3. reinforcing

1. Pre  
come w/ us  
influence  
upbringing

Info - beliefs - values - attitudes  
eg. African-Americans & anemia  
Asian ↑ cancer  
hereditary factors / + prone to disease

2. Enabling

make h decisions + convenient / default  
eg I want to exercise →  
Swimming pool in house etc

3. Reinforcing

relate to presence / absence  
of support / encouragement

## ASSESSING YOUR NOTETAKING STRATEGIES

**OBJECTIVE:** To help students evaluate their notetaking strategies.

**RATIONALE:** By working with the peer assessment form, students can improve their notetaking strategies.

**PROCEDURES:**

1. Explain to the students that the purpose of this activity is to help them improve their notetaking strategies. Emphasize the importance of giving constructive feedback.
2. Students will work in dyads and will exchange their lecture notes.
3. Students will read their classmates' notes and will give them feedback using the handout: **Assessing Your Notetaking Strategies**.
4. After students have completed the activity, have two or three dyads share what their classmates learned from them or what they learned from their classmates.

**Note to Study Group Leader:** Assessing their classmates' notetaking strategies should be completed in 10-15 minutes. The activity can be repeated once a week until the students feel comfortable with their notetaking strategies. Also, depending on your students' notetaking strategies, you should decide whether you want to use the handout below as it is or select the questions that pertain to your students' needs.

**HANDOUT: ASSESSING YOUR NOTETAKING STRATEGIES**

**Instructions:** Use the checklist below to help your classmate with his/her notetaking strategies.

Reader's Name: \_\_\_\_\_

Writer's Name: \_\_\_\_\_

Do your classmate's notes include:

1. the main idea/s corresponding to today's lecture
 

YES	NO
-----	----

If your answer is NO, offer a suggestion to your classmate.
2. a summary of today's review session (based on the ideas discussed in the previous class).
 

YES	NO
-----	----

If your answer is NO, offer a suggestion to your classmate.
3. abbreviations and symbols that helped your classmate writer faster
 

YES	NO
-----	----

If your answer is NO, offer a suggestion to your classmate.
4. annotations that helped students clarify questions, or emphasize important ideas
 

YES	NO
-----	----

If your answer is NO, offer a suggestion to your classmate.

**ASSESSING YOUR READING STRATEGIES**

**OBJECTIVE:** Having students complete the handout **Assessing Your Reading Strategies** will make students aware of some of the strategies they use when reading for academic purposes. If completed at the beginning of the quarter, this activity can serve as a diagnostic tool for the study group leader. This activity can be repeated at the end of the quarter to help students self-assess their reading strategies.

**RATIONALE:** If conducted at the beginning of the quarter, this activity will provide study group leaders with information regarding the students' perceptions about their reading strategies. If used at the beginning and at the end of the quarter, this activity will help students evaluate whether or not there have been any changes in their reading strategies.

**PROCEDURES:**

1. Give students a copy of the handout: **Assessing Your Reading Strategies**.
2. Students should put a check in the corresponding box.
3. Working in dyads, students will discuss their choices
4. Have students turn in the handout - if you want them to complete the same activity at the end of quarter.
5. At the end of the quarter, have students complete the same activity and discuss whether or not they notice any differences in the way they read for academic purposes.

**Note to Study Group Leader:** Strategic readers would answer YES to all the statements in the handout.

# HANDOUT: ASSESSING YOUR READING STRATEGIES

Instructions: Think about the strategies you use when you read your textbooks and mark the appropriate box with an "x".

## WHEN I READ A CHAPTER IN A TEXTBOOK I:

(1) Count the number of pages .....  Yes  No

### Predict

(2) from the chapter title .....  Yes  No

(3) from headings .....  Yes  No

(4) from subheadings .....  Yes  No

### Pay attention to

(5) headings .....  Yes  No

(6) subheadings .....  Yes  No

(7) diagrams, pictures, tables .....  Yes  No

(8) first and last sentences in paragraphs .....  Yes  No

(9) summaries .....  Yes  No

(10) italicized words and phrases .....  Yes  No

(11) overall meaning .....  Yes  No

### Reread

(12) Difficult parts .....  Yes  No

(13) Summary sections .....  Yes  No

(14) Conclusion paragraphs .....  Yes  No

(15) Italicized or underlined sentences/ideas if they are not clear .....  Yes  No

## WHEN I READ A CHAPTER IN A TEXTBOOK I:

(16) Summarize what I read in my head .....  Yes  No

(17) Summarize what I read in writing .....  Yes  No

(18) Make marks to emphasize or understand important ideas .....  Yes  No

(19) Prepare an outline/reading guide based on what I have read .....  Yes  No

(20) Paraphrase (use my words) to understand what I read .....  Yes  No

Adapted from Maria, K. and Hathaway, K. (1993). Using think-alouds with teachers to develop awareness of reading strategies. *Journal of Reading* (37)1, 12-18.

## IMPROVING READING SKILLS: PART I

**OBJECTIVE:** To model effective strategies when reading for academic purposes.

**RATIONALE:** Students will become aware of effective textbook reading strategies.

### **PROCEDURES:**

1. Give students a copy of the handout: **Steps in Reading a Textbook Chapter**.
2. As your students read the steps, promote a discussion regarding whether or not following the steps can be helpful when reading for academic purposes.
3. Tell your students that you will read a section in a chapter (or part of a chapter) in the Health Science textbook and you will show students how you employ effective reading strategies.
4. Read the selected section and **VERBALIZE** (say out loud) the **STRATEGIES** you use when you read. Verbalizing how you read will prove to be useful to those students who have never used some of the strategies before.
5. After step 4, give an explanation of each of the strategies used. Be as specific as possible; tell your students what strategy you used, how, and why you used the strategy.
6. Give students the opportunity to practice the strategies in class and independently at home. Make sure that every week you have students report what strategies they have used, and whether or not using the strategies resulted in more effective reading.

**HANDOUT: STEPS IN READING A TEXTBOOK CHAPTER**

**Instructions:** Read the steps below and decide whether employing the steps can be helpful when reading for academic purposes.

**Suggested steps for reading a chapter:**

1. Read the title of the chapter.
2. Read the introduction to understand what the purpose/goal of the chapter is.
3. Read the summary section at the end of the chapter. How does the summary section relate to the introduction?
4. Identify the different sections (subheadings) of the chapter.
5. Start reading. Focus on the first and last sentence of each paragraph. The first sentence of a paragraph may contain the main idea of the paragraph. If the main idea is not clearly stated, try to figure it out.
6. Pay attention to whether or not the ideas presented in each subsection are summarized or restated. Also pay attention to words in bold face or italics.
7. Reread the summary section at the end of the chapter.
8. Summarize the chapter in your head. Then, write a summary or a study guide.



**IMPROVING READING SKILLS: PART II**

**OBJECTIVE:** After *Improving Reading Skills: Part I, Part II* will provide students with actual practice with effective textbook reading strategies.

**RATIONALE:** This activity will emphasize the importance of reading the textbook strategically.

**PROCEDURES:**

1. Divide your class into three or four small groups.
2. Tell your students that, using their textbook, students will participate in a competition. The first group to come up with a question based on a chapter in the book will get two points. The rest of the groups will decide whether or not the group that answered the question was right or wrong.
3. It is important that, upon the completion of the activity, students discuss whether or not using the strategies has resulted in effective reading.

**Note to the Study Group Leader:** Although the questions below are based on Focus on Health, this activity can be easily adapted to other textbooks. The content of the questions will change, but the nature of the questions and the strategies used will remain the same.

**Instructor's Questions:**

1. Read the title of Chapter 2. What is the title telling you about the chapter?
2. Read the introduction (TOP of page 19 in red). What is chapter 2 about?
3. Look at the summary section on page 28. What does the summary tell you about (a) the chapter and (b) the chapter introduction?
4. When would you read the summary section and why would you read it then?

5. How many sections (headings) does Chapter 2 have? (How did you identify them?)
  
6. Look at the section on page 19: **CHARACTERISTICS OF A MENTALLY HEALTHY PERSON**. Summarize the section in one sentence only. What did you read to answer the question?
  
7. Look at the heading on page 23: **DEVELOPING COMMUNICATION SKILLS**.
  - a. How do the subheadings Verbal Communication and Nonverbal Communication relate to the heading?
  
  - b. Summarize Verbal Communication in one sentence. In answering this question, what did you pay attention to? Why?
  
8. Look at page 26 and read the heading **A PLAN FOR ENHANCING YOUR MENTAL AND EMOTIONAL GROWTH**. Then, read the subheadings and:
  - a. Identify the 4 components of the plan for enhancing your mental health.
  
  - b. Summarize them in one sentence. What did you pay attention to in answering this question?
  
9. Discuss the importance of words in (a) *italics* and (b) **boldface**.
  
10. Reread the summary on page 28. Did you miss any important information? If you did, what should you do?

## PREPARING READING GUIDES

**OBJECTIVE:** To organize and condense ideas for tests or class presentations.

**RATIONALE:** Reading guides are study aids that should help students summarize information that will be used when preparing for exams. Because reading guides condense important information, students will be motivated to learn how to prepare them if the study group leader emphasizes the idea that, once students have developed a reading guide for a chapter, they will not need to reread the assigned chapter.

**PROCEDURES:** This activity should be completed early in the quarter after students have read one of the chapters in the textbook and identified important information in it.

1. Give students a copy of the handout: **Sample Reading Guide**.
2. Using the questions below, students should analyze the reading guide.
  - A. How long is the reading guide?
  - B. How is the reading guide organized?
  - C. What information is included in the reading guide?
  - D. What are some notetaking strategies that the reader employed in the reading guide?

**Note to Study Group Leader:** This activity can be adapted to the students' needs and the study group time constraints. The study group leader should decide whether or not she/he wants to skip part of the activity.

Reading Guide Chapter 2.  
Achieving Emotional Maturity.

I. Characteristics of a Mentally Healthy Person (MHP)

MHP feel . comfortable of themselves

. OK ab/others

MHP . can meet life demands

II. Emotional & Psychological Health (EPH)

. feel OK ab/responses to change

EPH rational + full personality + positive resolution

III. Normal Range of Emotions

A. Depression — 1 Primary (bio . internal) No apparent reason  
vs  
2 Secondary (ext. reactive) : Due to diff. periods

B. Loneliness — 1. Being alone (occasional)  
vs  
2. Feeling lonely (chronic)

C. Self-Esteem (SE)

1. + SE = + opinion of yourself

2. gives sense of self-worth

3. + SE = back to childhood

IV. Developing Communication Skills.

A. Verbal is enhanced by

1. thinking be/talking

2. focusing on central ideas

3. speak clearly & concisely

4. talk ~ w/ not to

5. Open up + note

B. Non-Verbal Comm

1. look pleasant & happy

2. Make Eye Contact

3. Touch (but be careful)

4. Learn to use distance

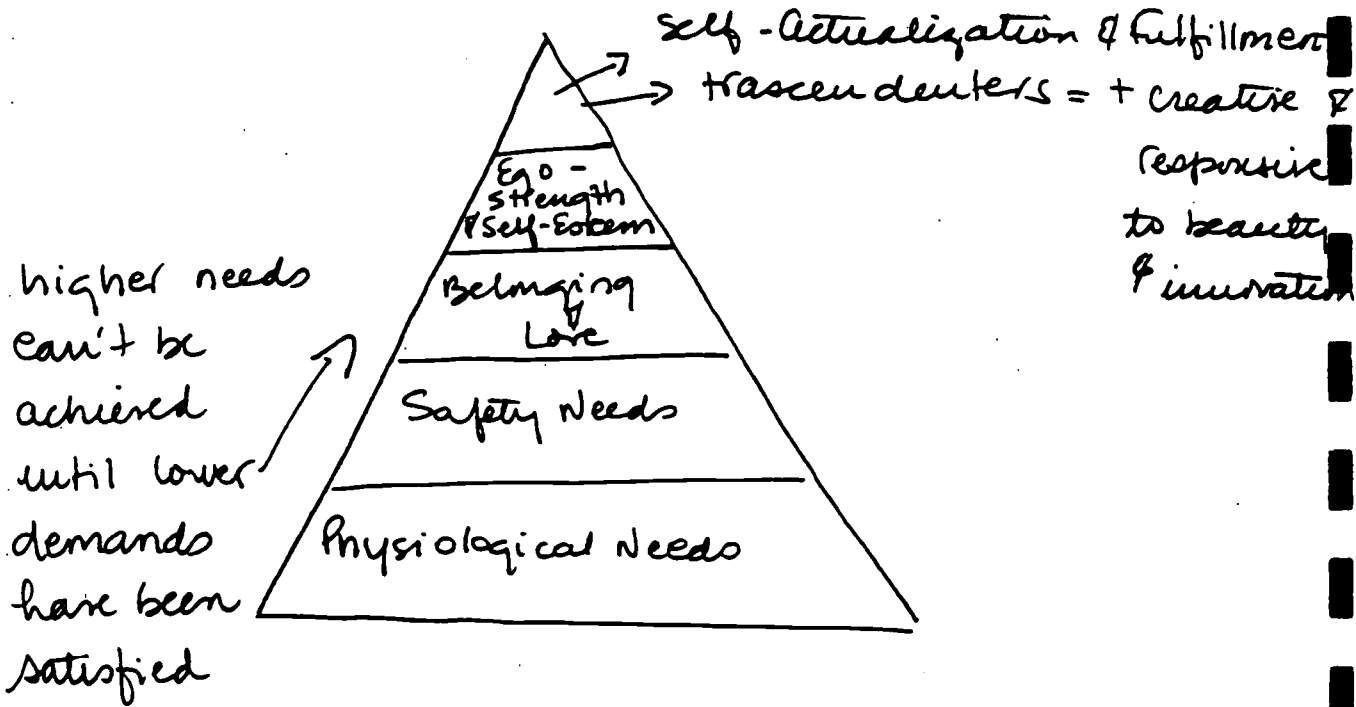
5. Dress for success

6. Posture

- 6. seek feedback
- 7. use other forms of com.
- 8. listen w/ attention
- 9. stop a conversation
- 10. prepare to listen

V. Humor is Important

VI Maslow's Hierarchy of Needs



VII Creative Expression

**WORD WIZ**

**OBJECTIVE:** To help students have a comprehensive understanding of new, unfamiliar, or technical terms.

**RATIONALE:** A thorough understanding of terms will allow students to concentrate on higher levels of thinking and reasoning.

**PROCEDURES:**

1. Select a term that is not known to the student - the term may have come up in lecture or course reading.
2. Define the term.
3. Find an appropriate synonym (a word with similar meaning), and give its definition.
4. Find an appropriate antonym (a word with opposite meaning), and give its definition.
5. Use the word in a sentence.
6. Give an example of the meaning of the word.

**EXAMPLE:**

**TERM:**

**Oxidation:** the physiology by which the liver processes alcohol through the system.

**SYNONYM:**

**Absorption:** the assimilation of substances into the blood stream.

**ANTONYM:**

**Dissipate:** the elimination of substances from the blood stream.

**USE OF WORD IN A SENTENCE:**

The oxidation of alcohol occurs in the liver at a rate of 1/4 ounce per hour.

**EXAMPLE OF OXIDATION:**

The paint on an automobile oxidizes as the moisture from the paint is absorbed into the atmosphere.

## A SCAFFOLDING APPROACH TO LIBRARY RESEARCH

**OBJECTIVE:** To teach students successful library research strategies using computer databases and indexes that will be applicable to the Behavior Modification Project.

**RATIONALE:** Students will have to apply library research strategies to their Behavior Modification Project.

### **PROCEDURES:**

1. Give students a copy of the library activity handouts.
2. In the library, have a reference librarian or yourself guide the students as they complete the activities. It is important that, working in pairs, students have the opportunity to engage in hands-on activities.
3. Using the library handouts, students should be able to go back to the library and use the library independently.

**Note to Study Group Leader:** This activity can be adapted to the students' needs and the study group time constraints. The study group leader should decide whether or not she/he wants to skip some of the activities.

## HANDOUT: A SCAFFOLDING APPROACH TO LIBRARY RESEARCH

### Purpose of the library activity:

To help you locate articles using

- A. The Education Index, the General Science Index, the Social Sciences Index, and the Applied Science and Technology Index.
- B. CD-ROM Computers,
- C. CARL, and
- D. LEXIS/NEXIS terminals.

- STEP 1.** For the purposes of this activity, your descriptor (TOPIC/SUBJECT/SUBJECT HEADING) is **AIDS EDUCATION-Colleges and universities (or any aspect of AIDS).**

### USING THE EDUCATION INDEX

- STEP 2.** Look up your descriptor (TOPIC/SUBJECT/SUBJECT HEADING) in the Education Index.
- STEP 3.** Look at page 3 in this packet for instructions on how to locate references on AIDS EDUCATION.
- STEP 4.** Select an article of interest from the following list of acceptable journals (PROFESSIONAL MAGAZINES): Journal of Health Education, Journal of School Health, American Health, Prevention, Psychology Today, Time, Newsweek, US News and World Report.

Fill in the information about the article:

Title of the article \_\_\_\_\_

Author/s of the article: \_\_\_\_\_

Journal (PROFESSIONAL MAGAZINE) title: \_\_\_\_\_

Volume: \_\_\_\_\_

Pages: \_\_\_\_\_

Month: \_\_\_\_\_ Day: \_\_\_\_\_ Year: \_\_\_\_\_

- STEP 5.** Go to the second floor, Library North and use the Periodicals Card Catalog to make sure that the Library owns the journal you identified in **STEP 4.** (In your case, the library owns all of the journals listed in 4.)



**STEP 6.** Go to the stacks, find the journal, and locate the article listed in the Index. Make sure that you record: the title of the article, author/s, title of journal where you located the article, journal volume, article pages, month, day, and year of publication.

### USING CD-ROM COMPUTERS

**STEP 7.** Use CD-ROM for journals/magazines and locate references for your descriptor (AIDS EDUCATION). Look at page 4 in this library packet for instructions on how to find references using CD-ROM computers.

Fill in the information below:

Number of articles on AIDS EDUCATION: \_\_\_\_\_

Number of articles identified from  
the list of acceptable journals: \_\_\_\_\_

### USING CARL

**STEP 8.** Use CARL to locate additional references to journals. Look at page 5 in this library packet for instructions on how to find references using CARL.

Fill in the information below:

Key word you used for your search: \_\_\_\_\_

Number of articles on AIDS EDUCATION  
\_\_\_\_\_

Title of two articles from acceptable journals: \_\_\_\_\_

1. \_\_\_\_\_

2. \_\_\_\_\_

### USING LEXIS/NEXIS

**STEP 9.** Use LEXIS/NEXIS to locate additional references to journals. Look at pages 6 and 7 in this library packet for instructions on how to find references using LEXIS/NEXIS.

Fill in the information below:

Key word you used for your search: \_\_\_\_\_

Number of articles on AIDS EDUCATION:  
\_\_\_\_\_

Title of two articles from acceptable journals: \_\_\_\_\_

1. \_\_\_\_\_

2. \_\_\_\_\_

HANDOUT: USING THE EDUCATION INDEX

The Education Index includes references to journals (professional magazines) and magazines covering all aspects of education including Health Science.

Below is an example of how to find a journal article using the Education Index. The steps below will also apply to the General Science Index, the Social Sciences Index, and the Applied Science and Technology Index, as well as to other indexes.

YOUR DESCRIPTOR: AIDS EDUCATION.

1. Locate the subject heading "AIDS EDUCATION" in the Education Index.
2. Below the subject heading "AIDS EDUCATION" you are instructed to look at the additional subject heading "Colleges and Universities."
3. Below is a photocopy of what you will find under the subject heading "AIDS EDUCATION- Colleges and Universities."

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EDUCATION INDEX

AIDS (Disease) education—Colleges and universities—*cont.*

Campuses confront AIDS: tapping the vitality of caring and community. R. P. Keeling. *Brooklyn Coll Rev* 24:30-6 Wint '93

Impact of an AIDS education course on university student attitudes. E. L. Taylor. *bibl J Health Educ* 23:418-22 N/D '92

Race, gender, and sexual orientation in the HIV/AIDS epidemic: evaluating an intervention for leaders of diverse communities. J. M. Croteau and others. *bibl J Multicult Couns Dev* 20:168-80 O '92

Student-health experts try broad approach in combating AIDS. L. Biemiller. *Chron Higher Educ* 39:A41+ S 2 '92

Teaching a college-level "AIDS and society" course. H. Klein. *bibl Teach Sociol* 21:1-12 Ja '93

What the athletic dept. has to know about HIV & AIDS. L. Dewald. *il Sch Coach* 62:42-5 S '92

Computer aids  
A research-based HIV/AIDS education program via the university computer system: bridge to prevention. M.

Teaching aids and devices  
AIDS/HIV teaching ideas. B. J. Beier and others. *J Health Educ* 24:47-9 Ja/F '93

Teaching methods  
AIDS "To tell the truth" gaming activity: a teaching method. J. W. Hisgen. *J Health Educ* 24:44-6 Ja/F '93

Great Britain  
Aids has rightful place in RE. N. Pyke. *Times Educ Suppl* 3968:6 Jl 17 '92

Wrath of Aids [profile of J. Daly, an AIDS worker] E. Williams. *por Times Educ Suppl* 3987:supp3 N 27 '92

Indiana  
HIV/AIDS education in Indiana public schools, grades 7-12. N. T. Ellis and M. R. Torabi. *bibl J Sch Health* 62:93-6 Mr '92

AIDS (Disease) knowledge tests. *See Health knowledge tests*

AIDS-associated viruses. *See HIV viruses*

Aids in teaching. *See Audiovisual aids; Teaching aids and devices*

\* AIDS methods

Impact of an AIDS education course on university student attitudes

E. L. Taylor

J. Health Educ

23:418-22

N/D

'92

TITLE OF ARTICLE

AUTHOR

JOURNAL

VOL:PAGES

MONTH

YEAR

## HANDOUT: USING CD-ROM COMPUTERS

**CD-ROM computers display abstracts (summaries of articles) to academic periodicals (professional magazines, journals) from 1991 to present. Make sure that you are in the database called PAO (periodicals) rather than NAO (newspapers).**

### To begin:

1. Type AIDS-colleges and universities.
2. Press the ENTER KEY to transmit your search request to the computer.
3. The computer will retrieve records on AIDS-colleges and universities (title of article, author, title of journal, volume, page numbers, month, and year of publication).
4. To view the title of the records retrieved by the search, press the ENTER KEY again.
5. To view the bibliographic citation and abstract (article summary), press the ENTER KEY one more time.

### Important function keys to remember:

- F2 Provides the computer user with an explanation of the different key commands.
- F3 Starts a new search or modifies your existing search.
- F4 Prints your search.
- F9 Marks only specific bibliographic records for printing.
- F10 Restarts the computer at the very beginning.

## HANDOUT: USING CARL

**CARL is an index, with abstracts (summaries of articles) to academic journals (professional magazines such as Science, Nature) showing CSLA holdings.**

### TO SIGN ON:

1. Type 1 to connect to the CARL databases.
2. Transmit a file number (see Important CARL Files below, e.g., 99 for Expanded Academic Index).
3. Transmit the subject of your search request (See CARL Commands Commonly Used). In this case the subject of your search is **SMOKING AND YOUTH**.

### IMPORTANT CARL FILES

- File 9 Database to CSLA owned periodicals.
- File 21 Database to the CSU union list (listing of all journals and magazines owned by all the CSU campuses).
- File 40 Database to U.S. government documents (e.g., the Constitution of California).
- File 98 Database to business periodicals.
- File 99 Database to Expanded Academic Index (periodicals in all academic disciplines).
- File 103 Database to ERIC (abstracts to articles in the field of EDUCATION).

### CARL COMMANDS COMMONLY USED

- To search by word (subject)                      W  
(e.g., Smoking and Youth)
- To search by author                                      N  
(e.g., Beverly Krilowicz)
- To Sign off    CONTROL KEY and Q  
(at the same time)

### HANDOUT: USING LEXIS/NEXIS

**LEXIS is a database with full-text of legal journals.**

**NEXIS is a database with full-text of magazines, journals, newspapers, and transcripts of TV news programs (e.g., Nightline, the McNeil Lehrer Hour).**

#### TO SIGN ON:

1. Type 2 to connect to the LEXIS/NEXIS databases.
2. Type NEXIS (because in your case, you are NOT interested in legal journals).
3. Transmit a file name (e.g., MAJPAS --for major papers--or MAGS--for magazines).
4. Transmit your search request (by subject). You may use AND, OR, or NOT to limit to request (e.g., AIDS AND COLLEGES AND UNIVERSITIES).

#### GUIDE TO FUNCTION KEYS:

##### TO VIEW YOUR RESULTS:

Press	OR	EXPLANATION OR FUNCTION
F7	.ci	*displays a list of citations.
F6	.fu	*displays every line of a document.
F5		*displays 15 words on either side of your search words.

##### TO MODIFY YOUR RESULTS:

Press	OR	EXPLANATION OR FUNCTION
	m	*Type "m" and press return.
		*Begin with a connector such as AND, OR, or W/N.
		*Use dates e.g., (Aft 1/88 or Be 1/93) to modify your search.

**TO BEGIN A NEW SEARCH:**

Press	OR	EXPLANATION OR FUNCTION
F8	.ns	*to run a new search in the same file (e.g., MAJPAPS).
F9	.cf	*to change to a different file (e.g., when you want to change from MAJPAPS to MAGS).
F10	.cl	*to change to a different library (e.g., from LEXIS to NEXIS).

**OTHER USEFUL COMMANDS:**

Press	OR	EXPLANATION OR FUNCTION
F1	.np	*to see the page in a search.
F2	.pp	*to see the previous page in a search.
F3	.nd	*to see the next document in a search.
F4	.pd	*to see the previous document in a search.

**TO SIGN OFF:**

.so	*to exit the system, type .so
n	then type n.

## WRITING A SUMMARY: PART I

**OBJECTIVE:** To provide summary writing instruction in preparation for completing the Behavior Modification Project.

**RATIONALE:** Summarizing is an activity that involves three cognitive operations: comprehension, condensation, and transformation of important information at the expense of non-important information. When summarizing articles to be included in the Review of the Literature, students will need to employ these three operations.

**PROCEDURES:** Summarizing instruction includes the steps below.

1. Give students a copy of the handouts: **Model Summary, Evaluation Checklist for Summary Writing**, and the article Ethnic Breakdown of AIDS Related Knowledge and Attitudes from the National Adolescent Student Health Survey.
2. Have students work in dyads and evaluate the model summary by looking at the **Evaluation Checklist for Summary Writing** and the original article.
3. Encourage a class discussion based on the students' evaluation.

**HANDOUT: MODEL SUMMARY**

Anderson and Christenson (1991) analyzed the National Adolescent Student Health Survey in order to understand students' knowledge about AIDS prevention and risks, and students' attitudes about their own and their peers' sexuality. Analysis of the data revealed that eighth and tenth-grade students were highly aware of the risk of contracting AIDS through sexual intercourse. Moreover, the data showed that most students understood that condoms and abstinence help prevent HIV. In contrast, students of all ethnic groups showed confusion about the risk associated with donating blood. Furthermore, while the students perceived themselves as being sexually responsible, they did not "feel the same way" (p. 30) about their friends. Finally, the study showed that less than half of the students surveyed had received AIDS education. Therefore, Anderson and Christenson concluded that, to increase knowledge about AIDS, more instructional programs are necessary.

Source: Anderson, D. M., & Christenson, G. M. (1991). Ethnic breakdown of AIDS related knowledge and attitudes from the National Adolescent Student Health Survey. Journal of Health Education, 22(1), 30-34.



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# Ethnic Breakdown of AIDS Related Knowledge and Attitudes from the National Adolescent Student Health Survey

D. Michael Anderson and Gregory M. Christenson

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The National Adolescent Student Health Survey (NASHS) (1989) was the first comprehensive study of the health related knowledge, attitudes, and behaviors of Americas' children and youth since the landmark School Health Education Study of 1964 (Sliepcovich, 1964). Like its predecessor, the NASHS study sought to answer questions fundamental to the practice of school health education, such as what students know about health, what is being practiced, and what is being taught. The NASHS effort resulted in nationally representative data on eighth and tenth grade students in the following health areas: injury prevention; suicide; violence; tobacco, drug, and alcohol use; nutrition; consumer skills; sexually transmitted diseases; and AIDS.

Several organizations and individuals were involved. Together, the American School Health Association, the Association for the Advancement of Health Education, and the Society for Public Health Education initiated the survey and worked under an agreement with the American Alliance for Health, Physical Education, Recreation, and Dance. Funding was provided by the Office of Disease Prevention and Health Promotion, the Center for Health Promotion and Education of the Centers for Disease Control, and the National Institute on Drug Abuse of the Alcohol, Drug Abuse, and Mental Health Association. Individuals from these organizations, as

well as IOX Assessment Associates and MacroSystems, Inc., shared responsibility for survey planning and development, as well as moving the project through all its phases.

Overall, results reaffirm what we already know: that knowledge alone is not sufficient for adolescents to make healthy choices; that there are inconsistencies between what adolescents know about health and what they practice; that there are differences between what boys and girls know, what their attitudes are, and what they practice; and that in planning health education programs, we must take religion, ethnicity, and socioeconomic level into consideration. These and many more detailed findings are given in *The National Adolescent Student Health Survey, A Report on the Health of America's Youth (1989)*. In this article, we will report on a subset of NASHS data that was not included in that publication and for which there is little data reported elsewhere: students' AIDS related knowledge and attitudes viewed from the perspective of ethnicity.

## Survey Design

A detailed description of the methods and procedures used in the NASHS study is available in the report mentioned above. Basically, the sampling frame consisted of all 50 states and the District of Columbia from which a total of 217 schools were selected, representing approximately equal numbers of urban and rural schools. Classes and class periods were randomly selected, and questionnaires

were administered by trained data collectors. Data collection took place in the fall of 1987. The survey was divided into three separate forms, each of which contained eight core health items and an item for age, gender, and self-described ethnicity, and about a third of the health areas mentioned above. Each student completed only one of the three survey forms, which were distributed sequentially in each classroom to ensure random assignment. After deletion of some cases for reasons of incompleteness or validity, a total of 11,419 cases remained in the sample. These cases then were weighted to reflect national estimates of the characteristics of eighth and tenth grade students by adjusting for the possibility of their selection. The subsample used in this article represents only those students who completed the form that contained the section on AIDS, or a total of 3,617 cases. Items reported here represent only those that were selected because of their statistical significance ( $p > .05$ ) using the Mantel-Haenszel Chi-Square test of association between row and column variables. Caution, however, should be taken in examining these data because, although each of these ethnicities are represented proportionally in the sample, subjects are not necessarily representative of their respective ethnic groups nationally.

### Sample Characteristics

Demographic characteristics of the subsample that answered questions about AIDS are shown in Table 1. Gender is about evenly divided except for Asian Americans where males predominate and Native Americans where females outnumber males. The split between eighth and tenth grades is even also except for the "others" category where eighth graders predominate.

Subjects were asked if they had received previous education in several areas of health. Results of the question about AIDS education are reported in Table 2. The majority of respondents did not remember having any AIDS courses since seventh grade,

except for Native Americans (50.1 percent responding affirmatively). Moreover, Native Americans, along with the rest of the sample, have a high percentage of "Don't Remember" responses (mean score = 23.8 percent) that arguably may be considered tantamount to a "No" response since the effect must not have been too great. Results of the following analysis, therefore, should be considered in light of where students got their knowledge and attitudes about AIDS, since less than half of it came from school.

### Survey Findings

Respondents' knowledge of factors that increase the risk of HIV infection is generally high, as shown in items selected for Table 3. This is true overall in spite of significant variation between ethnicities. Knowledge about the risk associated with having sexual intercourse with an HIV infected partner is high, with Whites scoring highest and Asian Americans scoring lowest. The mean correct response in this item was 90.6 percent. The incorrect belief in the risk associated with

being in the same classroom as an HIV infected individual is low, with Blacks scoring with six percent and all others following with less than that. The same question, however, shows a high level of ambiguity, as measured by the "Don't Know" response, which has a mean of 14.4 percent. Three-quarters or more of the students correctly know that having multiple partners, gay sex, and needle sharing are risk factors. The greatest exception to this generally favorable picture is found in students' knowledge about the risk involved with donating blood. Less than half answered correctly overall (mean score = 32.4 percent), with American Natives scoring lowest with just 19 percent correct. There was also a high level of ambiguity on this item (mean "Don't Know" score = 15.8 percent), and an even higher level of incorrect responses (mean "Yes" score = 51.9 percent). This probably indicates some confusion between donating blood, virtually a no-risk procedure in the United States, and receiving a transfusion, which is at worst a low risk procedure.

### Students' knowledge about AIDS

Ethnicity:	White	Black	Hispanic	Asian/ Pacific Islander	American Indian/ Alaskan	Other
<b>Gender:</b>						
Female	49.6	50.4	51.3	40.8	65.0	48.8
Male	50.4	49.6	48.7	59.2	35.0	51.2
<b>Grade:</b>						
Eighth	50.9	47.6	50.3	53.4	50.0	68.6
Tenth	49.1	52.4	49.7	46.6	50.0	31.4
<b>Total:</b>						
Percent	73.2	12.7	8.3	2.8	0.6	2.4
Frequency	2648	460	300	103	20	86

Ethnicity:	White	Black	Hispanic	Asian/ Pacific Islander	American Indian/ Alaskan	Other
Yes	33.3	40.2	39.4	30.2	50.1	38.4
No	48.7	41.9	32.1	39.5	24.8	38.8
Don't Remember	18.0	18.0	28.6	30.3	25.1	22.8

prevention is less strong. For example, as shown in Table 4, the percent of those responding correctly to the use of condoms is high across all ethnicities (mean score = 79 percent). But considering that condom use is perhaps the number one AIDS prevention message, the frequency of incorrect responses (mean score = 10.9 percent) is high, especially among Hispanics and Asian Americans. "Don't

Know" responses for that item are also high among Native Americans. Not having sex, another basic AIDS prevention message, has a low level of correct responses (mean score = 69.3 percent), and a remarkably high level of incorrect responses (mean score = 21.7 percent), particularly among Hispanics, Blacks, and Asian Americans. In the other two items shown in Table 4, the usefulness of going to the bath-

room and washing after sex in AIDS prevention, correct response rates are low, and incorrect responses sometimes outnumber correct ones. "Don't Know" answers are high also, about a third of all responses across ethnicities, for both of these items. This may indicate some confusion between AIDS education messages and other, STD prevention, messages.

Responses to questions about AIDS transmission are shown in Table 5. Knowledge about the lack of a cure for AIDS is high for all ethnic groups (mean score = 81.2 percent), although almost 20 percent of Native American respondents got this question wrong. Most students correctly know that there is an HIV detection test (mean score = 80 percent) although there is an overall high "Don't Know" response rate (mean score = 13.4 percent). A majority of students also know that there is no AIDS vaccine (mean score = 56 percent), but there is a high level of ambiguity on this item (mean "Don't Know" score = 32.3 percent). Moreover, almost 18 percent of Black students incorrectly indicated that there is an AIDS vaccine. About 80 percent or more of the sample students know that HIV can be transmitted from mother to fetus, except for those in the "Other" category, and Native Americans (62.1 percent). Most of those who did not chose the correct response for this question did not know one way or the other, however; the mean "Don't Know" score for this item is 20.7 percent with Native Americans scoring the highest with almost 38 percent. Personal and perceived beliefs by friends about sexuality are represented in two matching questions in Table 6. The majority of students believe that it is definitely "OK" for people their age to say no to sex (mean score = 61.6 percent), but their notions about what their friends believe are much more equivocal. Only an average of 37.9 percent of students across ethnicities think their friends feel the same way, and perceptions about others' beliefs were distributed widely among response choices. Similarly, personally held beliefs that students definitely should use condoms

Ethnicity:	White	Black	Hispanic	Asian/ Pacific Islander	American Indian/ Alaskan	Other
<b>Does this behavior make infection MORE likely?</b>						
<b>Having sexual intercourse with someone who has AIDS:</b>						
*Yes	96.8	90.3	87.8	86.9	92.2	89.4
No	2.9	7.2	10.4	11.3	3.5	8.6
Don't Know	0.3	2.5	1.8	1.8	4.3	2.0
<b>Being in same classroom with someone who has AIDS:</b>						
Yes	4.3	5.9	5.0	3.8	0.0	5.1
*No	88.2	79.6	75.9	84.1	84.2	77.9
Don't Know	7.6	14.5	19.1	12.1	15.8	17.0
<b>Having more than one sex partner:</b>						
*Yes	85.0	74.1	75.8	75.0	85.3	82.9
No	7.2	15.4	11.4	17.3	10.4	8.1
Don't Know	7.7	10.6	12.9	7.7	4.3	9.1
<b>Having sex with someone who has had several sex partners:</b>						
*Yes	86.7	74.4	75.8	73.7	82.0	81.7
No	5.0	12.8	10.4	14.9	10.8	7.2
Don't Know	8.3	12.9	13.8	11.5	7.2	11.1
<b>A male having sex with another male:</b>						
*Yes	82.4	79.7	73.7	74.6	85.9	75.1
No	7.6	11.4	12.2	15.5	8.0	10.3
Don't Know	10.0	8.8	14.1	9.9	6.1	14.6
<b>Sharing drug needles:</b>						
*Yes	93.8	86.8	85.9	83.3	79.3	80.2
No	3.3	8.4	10.7	14.0	6.4	11.5
Don't Know	2.9	4.8	3.4	2.7	14.2	8.3
<b>Donating blood:</b>						
Yes	43.0	55.0	54.7	45.1	49.7	63.9
*No	43.3	27.4	31.3	44.8	19.0	28.4
Don't Know	13.7	17.6	14.0	10.1	31.3	7.8

\*indicates correct response

Ethnicity:	White	Black	Hispanic	Asian/ Pacific Islander	American Indian/ Alaskan	Other
<b>Does this behavior make infection LESS likely?</b>						
<b>Using condoms (rubbers) during sex:</b>						
*Yes	88.3	84.3	75.0	76.4	75.4	74.8
No	5.6	11.6	14.8	14.7	6.4	12.0
Don't Know	6.1	4.0	10.2	8.9	18.2	13.3
<b>Not having sex:</b>						
*Yes	79.7	66.5	62.4	66.8	65.2	75.4
No	15.0	26.1	28.2	24.3	17.6	19.0
Don't Know	5.4	7.4	9.4	8.9	17.3	5.6
<b>Going to the bathroom after having sex:</b>						
Yes	6.4	16.7	9.7	11.7	18.9	18.4
*No	61.8	55.1	57.3	52.3	42.9	54.5
Don't Know	31.8	28.3	33.1	36.1	38.4	27.0
<b>Washing after having sex:</b>						
Yes	20.0	41.0	33.5	23.1	40.0	20.5
*No	52.5	41.0	36.4	49.5	33.1	46.1
Don't Know	27.5	18.1	30.1	27.4	26.9	33.4

\*indicates correct response

if they have intercourse are generally strong across ethnic groups (mean score = 70.6 percent), but the perception that peers feel the same way is much weaker (mean score = 48.7 percent).

### Conclusion

In general, students know about the most important risks, and non-risks, involved in becoming infected with HIV. Among the best examples of high correct knowledge scores are questions about having intercourse with an infected individual, having multiple partners, having sex with a promiscuous partner, sharing needles, use of condoms, and that there is a test for the virus but no known cure for the disease. Differences between ethnic groups were significant for all the data presented here, and general patterns emerge. White students usually received the highest scores, followed by Blacks and Asian/Pacific Islanders. American Natives, while receiving the highest overall scores on two items, scored the lowest more frequently than any other ethnicity.

Several misconceptions are revealed by these data. Perhaps the most obvious is confusion about the risk associated with donating blood, followed by uncertainty about an anti-AIDS vaccine and fair amount of confusion about the AIDS-prevention utility of washing after sex. There is also a noticeable difference between what students, despite ethnicity, believe they should do regarding sexual behavior, and what their friends believe. Most importantly, there is room for increased knowledge for adolescents in all areas of AIDS prevention.

While the NASHS study did not measure students' sexual behavior, it is clear that knowledge in risk reduction must increase whether that knowledge is gained in school or elsewhere. There may be more AIDS prevention education occurring in the nation's schools now than there was at the time of this survey, but with less than half of this representative sample recalling having had instruction in AIDS, there is still room for improvement. As usual, this need is particularly great for ethnic minorities.

Ethnicity:	White	Black	Hispanic	Asian/ Pacific Islander	American Indian/ Alaskan	Other
<b>There is no known cure for AIDS:</b>						
*True	88.9	84.0	82.5	82.3	73.7	75.8
False	4.1	6.7	9.0	8.4	19.8	7.8
Don't Know	7.0	9.3	8.6	9.3	6.6	16.5
<b>A test to determine whether a person has the AIDS virus is now available:</b>						
*True	85.0	73.3	76.2	84.4	82.5	78.3
False	5.1	10.7	7.0	2.2	9.6	5.6
Don't Know	9.9	16.1	16.8	13.4	8.0	16.1
<b>A vaccine that protects people from getting the AIDS virus is available:</b>						
True	8.5	17.6	14.2	8.6	8.8	13.0
*False	66.9	47.0	51.3	58.1	56.2	56.2
Don't Know	24.7	35.5	34.5	33.4	35.0	30.8
<b>A pregnant woman who has the AIDS virus can give AIDS to her baby:</b>						
*True	80.8	84.3	85.0	79.9	62.1	71.7
False	1.4	2.4	2.5	4.4	0.0	1.4
Don't Know	17.8	13.3	12.5	15.8	37.9	26.9

\*indicates correct response

Ethnicity:	White	Black	Hispanic	Asian/ Pacific Islander	American Indian/ Alaskan	Other
<b>I believe that . . .</b>						
It is OK for people my age to say "no" to having sex:						
Definitely Yes	70.5	64.1	54.1	66.4	49.2	65.5
Probably Yes	16.8	16.8	23.4	17.1	33.3	11.2
Not Sure	5.3	8.2	10.1	7.6	10.3	10.1
Probably No	3.6	4.1	7.8	4.3	7.3	7.8
Definitely No	3.9	6.9	4.5	4.5	0.0	5.4
People my age should use condoms (rubbers) if they have sex:						
Definitely Yes	76.9	78.3	70.9	61.4	60.9	75.2
Probably Yes	15.0	13.6	14.4	18.3	19.1	14.2
Not sure	5.2	4.1	9.1	10.3	13.2	8.2
Probably No	1.7	1.1	2.8	3.1	6.9	0.9
Definitely No	1.3	3.0	2.9	6.9	0.0	1.6
<b>My friends believe that . . .</b>						
It is OK for people my age to say "no" to having sex:						
Definitely Yes	37.5	30.7	35.1	42.8	41.6	39.6
Probably Yes	26.5	22.0	27.2	22.7	40.6	20.0
Not Sure	17.4	14.7	15.7	10.6	2.9	16.0
Probably No	10.3	14.2	12.2	13.0	15.0	10.5
Definitely No	8.8	18.3	9.8	11.0	0.0	13.9
People my age should use condoms (rubbers) if they have sex:						
Definitely Yes	56.8	62.9	53.9	32.7	26.8	59.0
Probably Yes	23.9	16.2	24.0	28.7	52.6	20.1
Not Sure	14.1	9.1	16.0	24.2	13.2	10.7
Probably No	3.3	6.3	3.0	6.7	7.4	2.9
Definitely No	2.0	5.6	3.1	7.7	0.0	7.3

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**Golaszewski**  
Continued from page 56

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Miller, A., Snow, D. & Golaszewski, T. (1990). An evaluation of the Travelers Companies' employee assistance program. Internal report. The Travelers Companies, Hartford, CT.

U.S. Department of Health and Human Services. (1985). National medical care utilization and expenditure survey: Health care coverage and insurance premiums of families: United States, 1980. Public Health Service, Preliminary Data Report No. 3. Washington, U.S. Government Printing Office.

## Call for Applications for Contributing Editor

### Research Abstracts Column

The Board of Associate Editors of the *Journal of Health Education* is seeking applications for the voluntary position of Research Abstracts Column Editor. The editor will be responsible for selecting research abstracts submitted by authors to be published in the *Journal of Health Education*. Qualified applicants are experienced researchers with broad interests in both quantitative and qualitative health education and related research. Interested applicants should send vita, a sample of a research abstract written by the applicant, with a cover letter expressing interest to:

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Reston, Virginia 22091

Applications will be reviewed and selections made in April, 1991 at the Board of Associate Editors meeting during the AAHPERD conference in San Francisco. The application deadline is March 22, 1991.

Vickery, D., Golaszewski, T., Wright, E. & Kalmer, H. (1988). The effect of self-care interventions on the use of medical service within a Medicare population. *Medical Care*, 26(6), 580-588.

Vickery, D. (1986). Taking part: The consumer's guide to the hospital. Reston, VA: The Center for Corporate Health Promotion.

Vickery, D., Kalmer, H., Lowry, D., Constantine, M., Wright, E., & Loren, W. (1983). Effect of a self-care education program on medical visits. *JAMA*, 250(21), 2952-2956.



**HANDOUT: EVALUATION CHECKLIST FOR SUMMARY WRITING**

**INSTRUCTIONS:** Read the article Ethnic Breakdown of AIDS Related Knowledge and Attitudes from the National Adolescent Student Health Survey. Using the Evaluation Checklist for Summary Writing below, analyze the model summary.

The author:

- |   |     |    |
|---|-----|----|
| 1. has deleted minor details<br>Examples:   | YES | NO |
| 2. has combined ideas<br>Examples:  | YES | NO |
| 3. has paraphrased accurately<br>Examples:  | YES | NO |
| 4. has reflected his/her emphasis<br>Examples:                                    | YES | NO |
| 5. has identified the topic:<br>Examples:   | YES | NO |
| 6. has identified the main idea<br>Examples:                                      | YES | NO |
| 7. has stayed within appropriate length<br>Examples:                              | YES | NO |
| 8. has excluded personal opinion<br>Examples:                                     | YES | NO |
| 9. has shown that the summary is<br>based on other people's material<br>Examples: | YES | NO |

## READING ACCOUNTABILITY

**OBJECTIVE:** To motivate students to keep up with the assigned reading.

**RATIONALE:** Students who keep up with the reading will be less likely to feel overwhelmed at exam time. Students will also have an opportunity to build upon their knowledge of a particular subject if they are up on current material.

### **PROCEDURES:**

#### **OPTION I:**

1. Have students construct three questions from the assigned reading. Make sure they are aware of the reference point of the question for verification.
2. Use these questions to begin the recall section of the study group.

Note: The questions should be constructed by the students before the study group.

#### **OPTION II:**

1. Have a student give a short oral presentation on the assigned reading.
2. Allow student to express any particular areas of confusion, agreement, disagreement, likes, or dislikes of the chapter.

Note: Step 2 is an excellent way to induce critical and higher levels of thinking.

#### **OPTION III:**

1. The study group leader may give a quick quiz based on assigned reading (5 or 6 questions).
2. After taking the quiz the students should go over the question/concepts thoroughly, and discuss how they came to their answers. This is also a useful way to conduct the recall of the study group.

**WRITING A SUMMARY: PART II**

**OBJECTIVE:** To make students aware of the operations involved in summary writing.

**RATIONALE:** Summary writing is one of the most common tasks that students have to fulfill in university-level general education courses. Teaching summarizing strategies will help students comprehend, condense, and transform the propositions of original text.

**PROCEDURES:**

1. Give students a copy of the handout: **Strategies for Summary Writing**.
2. Have students read the handout in dyads.
3. Encourage a discussion regarding the handout.
4. Have students work on Writing a Summary: Part III.

**YOUR SUMMARY SHOULD:**

1. **Show** that it is based on other people's material. Mention the author of the article periodically.
2. **Avoid plagiarism.** To avoid plagiarism you should:
  - A. **Paraphrase (USE YOUR OWN WORDS)** what the author has stated OR
  - B. **Use quotation marks** if you use the author's words. Then, write the author's last name and year of publication in parenthesis [e.g., (Smith, 1991)].
3. **Present "the big picture."** Do **NOT** worry about details.

**Summary activities adapted from the following sources:**

Brown, A. L., & Day, J. D. (1981). Learning to learn: On training students to learn from text. Educational Researcher, 10, 14-21.

Casazza, M. E. (1993). Using a model of direct instruction to teach summary writing in a college reading class. Journal of Reading, 37(3), 202-208.

Hare, V. C., & Borchardt, K. M. (1984). Direct instruction of summarization skills. Reading Research Quarterly, 20, 62-78.

Kirkland, M. R., & Saunders, M. A. (1991). Maximizing student performance in summary writing: Managing cognitive load. TESOL Quarterly, 25(1), 105-121.



**HANDOUT: STRATEGIES FOR SUMMARY WRITING**

**Instructions:** Read the strategies below.

**SUMMARIZING PROCESS**

After reading the article to be summarized:

**1. Put the article down and think:**

**What is/are the main idea/s presented in the article?**

- A. Make a mental picture of the article's main idea/s.
- B. Write down the main idea/s **IN YOUR OWN WORDS**.

**2. Delete redundant and minor details.**

- A. Do **NOT** include the same information more than once.
- B. Do **NOT** include unimportant details.

**3. Combine ideas in different paragraphs or sections of the article.**

- A. Do **NOT** write one sentence for every paragraph.
- B. Combine **IMPORTANT** information from different sections of the article.

**4. Combine lists.**

A list of activities like "ice skating and skiing" can be summarized by writing/saying "winter sports."

**5. Review your summary when you have finished it.**

- A. Read your summary, read the article.
- B. Is your summary complete? Does it emphasize the points that the author emphasized in his/her article?

**6. Polish your summary.**

- A. Is your summary easy to follow? The sentences/paragraphs in your summary should be connected with words like "furthermore," "moreover," "in addition."

### WRITING A SUMMARY: PART III

**OBJECTIVE:** To make students aware of commonly made mistakes when summarizing written text.

**RATIONALE:** This activity will help students further understand the operations involved in summarizing tasks.

#### **PROCEDURES:**

1. Give students a copy of the handout: **Summary Evaluation Activity** and a copy of the article The Overweight Status of Low-Income Mexican American Children 10 through 14 Years of Age.
2. Give students a copy of the handout: **Eight Easy Steps to Evaluating a Summary**.
3. Working in dyads, students will evaluate the summary.
4. Encourage a class discussion based on the students' evaluation.

**HOMEWORK ASSIGNMENT:** Since students need opportunities for guided practice in summary writing, follow steps 1-2 below.

1. Have students summarize one of the articles that they are planning to use in the Review of the Literature section of the writing assignment.
2. The following class, working in dyads, students will exchange drafts and will evaluate their summaries using the checklist: **Eight Easy Steps to Evaluating a Summary**.

**HANDOUT: SUMMARY EVALUATION ACTIVITY**

**Instructions:** Using the **Evaluation Checklist for Summary Writing**, evaluate the summary below.

Earlier studies comparing Mexican American children with commonly used reference data have indicated that Mexican Americans are shorter and lighter than non-Hispanics. This study evaluated the overweight status of Mexican American school age children in South Texas. The researchers say that they looked at boys and girls. The study showed that low-income children are both shorter and heavier than U.S. reference data. Shorter stature may be related to ethnic variation in body size (p.33). Suggested appropriate strategies regarding eating practices include recommended caloric intakes within the context of the Mexican American diet.

Source: Guinn, B. (1993). The overweight status of low-income Mexican American children 10 through 14 years of age. *Journal of Health Education*, 24(3), 32-33.

# The Overweight Status of Low-Income Mexican American Children 10 Through 14 Years of Age

Bobby Guinn

## Abstract

*Height, weight, and body mass index were measured in 1,851 low-income Mexican American (MA) children, 10 through 14 years of age, to assess for the overweight status of an ethnic population susceptible to diabetes risk. Study sample mean measurements were compared with National Center for Health Statistics (NCHS) reference data means for American children and z scores were used to determine the significance of differences between the two groups. Results indicated that MA children were shorter, significantly heavier, and of significantly greater body mass index than NCHS reference data. Mean body mass index for all subjects approximate the 75th to 80th NCHS percentiles, reflecting a positive energy balance and resultant high adiposity composition among the group studied.*

Earlier studies comparing Mexican American children with commonly used reference data have indicated them to be shorter and lighter than their non-Hispanic cohorts (Lantz & Wood, 1958; Malina & Zavaleta, 1970; Manuel, 1934; Meredith & Goldstein, 1952). More recent investigations have reported height-for-age values among MA children approaching those of non-Spanish surnamed children (Dewey, Chavez, Gauthier, et al., 1983; Dunn & Martorell, 1984). The most notable finding, however, in the current literature dealing with anthropometry of this ethnicity is

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the dramatic increase in weights-for-height and age among preschool populations (Kumanyika, Huffman, Bradshaw, et al., 1990).

The relationship between obesity and risk of non-insulin dependent diabetes mellitus (NIDDM) is well established (National Institutes of Health, 1985; Rimm, Werner, Van Yserloo, et al., 1973; Westlund & Nicolaysen, 1972). Recent community-based studies have shown that Mexican Americans in South Texas have a three- to five-fold increase in the prevalence of diagnosed and undiagnosed NIDDM and higher mortality due to diabetes than their Anglo counterparts (Hanis, Ferrell, Barton, et al., 1983; Raymond, 1988; Stern, Gaskill, Hazuda, et al., 1983). There exists a high likelihood that an obese school-age child will become an obese adult (Surgeon General's Report, 1988). Given the association between obesity and diabetes coupled with the extreme incidence of NIDDM among Mexican American adults, childhood onset obesity portends a significant health problem for the most rapidly growing ethnic group in the United States. The present study evaluates the overweight status of non-migrant, low-income Mexican American school age children in South Texas as a means of helping to assess diabetes risk for a population already judged susceptible.

## Methods

The subjects were 1,851 Mexican American boys and girls, 10 through 14 years of age, drawn from 2,085 participants in a youth program for economically disadvantaged children in the Lower Rio Grande Valley region of South Texas. The

program was held on the UT-Pan American campus and the study was conducted over a four-year period, 1988, '89, '90, and '91. Ethnicity was determined by surname and the 1,851 subjects were comprised of four distinct groups, thus no subject was represented more than once. Program guidelines stipulated that at least 90 percent of the participants met poverty criteria established by the United States Department of Health and Human Services. Eligibility of the children was determined by their participation in free or reduced school lunch programs and low income target designation by the local Community Action Agency. The target area was identified as a Supply Class F Area, or one with critical surplus of labor (U. S. Department of Labor, 1991). During the period of the study, 1988-91, this area had the highest unemployment level in the state of Texas. In view of the geographic area's continuing depressed economy and widespread elevated unemployment levels, it was felt that the study sample was fairly representative of the Mexican American population of the region as well as each component program group demographically equivalent. Subjects were grouped by age, according to their nearest birthday, into whole-year categories so that the mean age for each group approached the midpoint of the category.

Data collection was performed by program professionals holding degrees in physical education and possessing a minimum of three years' teaching experience. Staff protocol procedures were conducted by a qualified professional with a terminal degree in physical education. An examiner and recorder was utilized for all measurements. Height was measured with

the subject in the standard erect position with-shoes removed. Body weight was measured with the subject wearing gym clothing, shoes removed, on a balance beam scale (Detecto Scales, Inc. Brooklyn, NY). At the beginning of each weighing period, the scale was calibrated at zero and at intervals of 25 pounds up to 250 pounds. If the scale was out of calibration by a constant amount at all weights, a correction was made via an adjustment mechanism. Additionally, at any time that the examiner felt the scale was not accurate, a complete recalibration was done. Body mass index (weight in kilograms divided by height in meters squared) was used as an indication of body composition. Study sample mean measurements were compared with National Center for Health Statistics (NCHS) reference data means for American children (1987) and z scores were computed to determine the significance of differences between the two groups. The SAS (1990) statistical package was used for computer analysis.

## Results

Table 1 presents sample size and sex per age group and contrasts mean height, weight, and body mass index (BMI) of MA subjects with those of the NCHS. An absolute z score value was used to reject the null hypothesis of equality of proportions at the .05 probability level. Study sample boys, while slightly shorter, closely approximate national height norms. Similarly, sample girls are shorter than reference means, but the height differences are significant among the 10, 12, and 13 year olds. Mexican American boys and girls are heavier than NCHS means and, with the exception of the 11 year old girls, this weight difference is significantly greater. Sample boys' and girls' weight means fall between the 60th and 70th NCHS percentiles. Body mass index values for all subjects were greater than those of the NCHS and, with the exception of only the 11 year old girls, these differences were significant. Mean BMI for all subjects approximate the 75th to 80th percentiles.

## Discussion

The low-income Mexican American children studies are both shorter and heavier than U. S. reference data. Shorter stature may be related to ethnic variation in body size (Malina, Little, Stern, et al., 1983). However, body mass indexes indicating greater weight-for-height reflect a positive energy balance, that is, greater caloric intake in comparison to energy expenditure. The BMI is reported by Rolland-Cachera and others (1982) to be suitable for the evaluation of obesity in children; therefore, by NCHS standards, a relatively high amount of over-nutrition persists among the study sample. Of particular importance in all subjects' BMI mean values exceeding NCHS reference means and thus resultant higher percentiles is that Mexican Americans have more upper and central body adiposity or android fat than non-Hispanic whites (Haffner, Stern, Hazuda, et al., 1986; Stern, Haffner, Hazuda, et al., 1986). The android form of obesity is not only associated with increased risk of diabetes, but also that of heart disease and hypertension (Wardlaw & Insel, 1990).

Because of the numerical importance of Mexican Americans in the United States, and the fact that diabetes is such a major contributor to morbidity and mortality in adults, accurate information on the potential risk in pediatric populations is essential to educators, public health authorities, clinicians, and community leaders. The school site is an excellent locus for both identification of those at risk and provision of information leading to attitudinal and behavioral changes designed to help all children make correct choices regarding fitness attainment and dietary intakes. Exercise habits established in childhood enhance maintenance of a physically active lifestyle throughout adolescence and adulthood. Appropriate strategies regarding eating practices would include cognizance of recommended caloric intakes within the context of the Mexican American diet. The vanguard of fitness promo-

tion, weight control, and obesity prevention lies in age appropriate education, and healthful instruction is especially critical when considering that juvenile obesity often begins during this period of accelerated growth. Concurrently, there is virtual unanimity of opinion that risk reduction and proper management of diabetes includes decreased adiposity; thus further research needs to be conducted to help explain the relative importance of socioeconomic, cultural, and genetic factors leading to increased weight-for-height among Mexican Americans.

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**HANDOUT: EIGHT EASY STEPS TO EVALUATING A SUMMARY**

The author:

- |   |     |    |
|---|-----|----|
| 1. Identified the main idea/s.<br>(Pay attention to the title and think:<br>What was the author's message?)<br>Suggestions for improvement?                               | YES | NO |
| 2. Deleted minor details.<br>Suggestions for improvement?   | YES | NO |
| 3. Reflected his/her emphasis.<br>Focused on the most important ideas.<br>(Pay attention to the title of the article).<br>Suggestions for improvement?                    | YES | NO |
| 4. Combined similar ideas.<br>Suggestions for improvement?  | YES | NO |
| 5. Paraphrased accurately.<br>Remember that quotations had to be used<br>or the author's ideas had to be paraphrased.<br>Suggestions for improvement?                     | YES | NO |
| 6. Excluded personal opinion.<br>The writer should have avoided using<br>"I" "We".<br>Suggestions for improvement?  | YES | NO |
| 7. Showed that the summary is based on other<br>people's material. (The author used phrases<br>such as "According to," "As stated by...")<br>Suggestions for improvement? | YES | NO |
| 8. Connected the sentences with words like<br>moreover, similarly, in contrast, first, second.<br>Suggestions for improvement?  | YES | NO |

### WRITING A SUMMARY: PART IV

**OBJECTIVE:** To teach students how to use connecting words when writing a summary.

**RATIONALE:** Students need to use appropriate connecting words within their summaries and between summaries within the Review of the Literature.

**PROCEDURES:**

1. Distribute copies of the handout: **Writing a Cohesive Summary**.
2. Have students work in dyads and answer the questions regarding the summary.
3. Then, give students a copy of the handout: **Connecting Words** and use it to connect the sentences in the summary. Tell students to refer to the handout when they write their Review of the Literature.

**HANDOUT: WRITING A COHESIVE SUMMARY**

**Instructions:** Working in pairs, read the summary below and decide:

1. What is missing between sentences? Would including the "missing words" make the summary easier to follow?
2. Use the handout **Connecting Words** to help you connect the sentences in the summary.

Anderson and Christenson (1991) analyzed the National Adolescent Student Health Survey in order to understand students' knowledge about AIDS prevention and risks, and students' attitudes about their own and their peers' sexuality. Analysis of the data revealed that eighth and tenth-grade students were highly aware of the risk of contracting AIDS through sexual intercourse. The data showed that most students understood that condoms and abstinence help prevent HIV. Students of all ethnic groups showed confusion about the risk associated with donating blood. While the students perceived themselves as being sexually responsible, they did not "feel the same way" (p. 30) about their friends. The study showed that less than half of the students surveyed had received AIDS education. Anderson and Christenson concluded that, to increase knowledge about AIDS, more instructional programs are necessary.

Anderson, D. M., & Christenson, G. M. (1991). Ethnic breakdown of AIDS related knowledge and attitudes from the National Adolescent Student Health Survey. *Journal of Health Education*, 22(1), 30-34.



**HANDOUT: CONNECTING WORDS**

**A. To introduce additional ideas:**

**Also, Furthermore, Moreover, In addition,...**  
Add your own:

**B. To introduce a comparison (similarity):**

**Similarly, Also, Both...and, Not only....but also, Likewise,...**  
Add your own:

**C. To introduce contrast (differences):**

**On the other hand, However, In contrast, Yet, While, Instead, On the contrary,...**  
Add your own:

**D. To introduce a summary or conclusion:**

**In conclusion, In summary, To conclude, To summarize,...**  
Add your own:

**E. To show sequence of events or chronological order:**

**First, Second, Third, etc.; Next, Last, Finally...**  
Add your own:

Adapted from: Oshima, A., & Hogue, A. (1991). Writing academic English. Menlo Park, CA: Addison Wesley.

## WORD DISSECTION

**OBJECTIVE:** To give students a broader base for understanding unfamiliar terms by recognizing the root, prefix, and suffix.

**RATIONALE:** Unknown words can be more easily dissected if a student has knowledge of various parts of a term.

### **PROCEDURE:**

1. Select unknown term.
2. Dissect root, prefix, and suffix.

### **EXAMPLE:**

1. Hematology: hemo = blood  
ology = the study of.

Hematology = the study of blood.

2. Asymptomatic: a = without  
symptom = sign or characteristic a particular condition.

Asymptomatic: without signs or characteristics of a particular condition.

### LEAPING TO OTHER CONTENT AREAS: SUMMARY WRITING

**OBJECTIVE:** To make students aware that the summarizing strategies they have learned in this class are applicable to their other classes.

**RATIONALE:** Very often students do not realize that the reading and writing strategies they learn in one content area are applicable to other content areas.

**PROCEDURES:**

1. Give students a copy of the handout: **Writing A Summary.**
2. Have students read the handout and discuss the applicability of the strategies listed to their other classes.

**HANDOUT: WRITING A SUMMARY**

**WHAT YOU LEARNED ABOUT SUMMARY WRITING IN HEALTH SCIENCE IS APPLICABLE TO OTHER CONTENT AREAS:**

**Good summary writers:**

- a. Identify the main idea of the original text,
- b. Delete minor details,
- c. Paraphrase accurately,
- d. Exclude personal opinion,
- e. Connect sentences,
- f. Reflect the author's emphasis, and
- g. Show that the summary is based on someone else's ideas.

## WRITING THE REVIEW OF THE LITERATURE: PART I

**OBJECTIVE:** To provide students with a model Review of the Literature and to help students evaluate the section.

**RATIONALE:** For most of the students in the Health Science 150 class, this is the first time that they have been asked to complete a data collection project. Therefore, modeling and evaluating a model Review of the Literature section will provide students with much needed guidance regarding how to complete the writing assignment.

### **PROCEDURES:**

1. Have students work in small groups and read the handout: **Model Review of the Literature** below.
2. Using the questions, have students analyze the section.
3. When the groups have completed step 2, they should compare their answers.

**HANDOUT: MODEL REVIEW OF THE LITERATURE**

**Instructions:** According to your project guidelines, your Review of the Literature should form a cohesive piece. Read the Review of the Literature below and answer the questions.

1. How many summaries of articles can you identify in the Review of the Literature?
2. What are the authors doing in the first two sentences of the Review of the Literature?
3. How are the different summaries combined to form one piece? Circle the words that help make the Review of the Literature a cohesive piece.

1        Several studies have assessed the relationship of environmental tobacco  
2 smoke (ETS) to cancer. Although the findings of these studies are considered to  
be inconclusive, the associations are indicative of potentially serious risks to  
3 nonsmokers exposed to ETS. For example, in a study conducted by Hirayama  
(1984), a greater than expected incidence of brain cancer was noted among  
4 adults whose work mates smoked more than ten cigarettes daily. Similarly, in a  
study aimed at investigating the effect of passive smoking on children, Brinton  
5 and Blot (1984) found an increase of sinus cancer. Furthermore, Sander and  
Everson (1985) found an increased incidence of lymphoma in nonsmokers  
6 exposed chronically to passive smoking. Finally, Slaterry and Robinson (1989)  
conducted a longitudinal study that investigated the effect of passive smoking on

7 women exposed to ETS. This study concluded that women with increased exposure to ETS showed a tendency to develop cervical cancer. (Continues...)

Source: Wood, S., & White, G. (1991). Health hazards of passive smoking: A review. *Journal of Health Education*, 22(5), 20-24.

**WRITING THE REVIEW OF THE LITERATURE: PART II**

**OBJECTIVE:** To make students aware of how they can proceed to write the Review of the Literature section.

**RATIONALE:** This activity will give students some organizational strategies for writing the Review of the Literature section.

**PROCEDURES:** To model the organizational strategy, you may use the topic of "the relationship of environmental tobacco smoke to cancer" used in the **Model Review of the Literature**.

1. Show students separate summaries of articles (you can use the summaries in the Literature Review).
2. Ask students to group the articles in terms of subtopics- e.g., all articles referring to lung cancer.
3. Proceed to leave a space at the top of the board. Tell the students that this space is reserved for the general statement about the topic you are investigating.
4. Ask students to help you connect the summaries.
5. When you have completed connecting the summaries, ask students to decide what the general statement should be: What are all the articles telling the students about cancer and smoking?
6. Students proceed to complete the space at the top of the board with the general statement.
7. Give students copies of the handout: **Organizing the Review of the Literature Section**.
8. Have students discuss the steps-that they have just used in writing the Review of the Literature.



## HANDOUT: ORGANIZING THE REVIEW OF THE LITERATURE SECTION

**Instructions:** Read the steps below. They will help you when you write your Review of the Literature.

1. Read your articles and write separate summaries.
2. Group the summaries in terms of subtopics.
3. Before you start connecting the summaries, leave a space at the top of the page. Proceed to write a draft of the Review of the Literature.
4. Remember to connect the summaries using transition words.
5. When you have completed writing the Review of the Literature, read what you have written and decide: What is the general statement that you can make regarding the topic investigated?
6. Complete the space at the top of the page with your general statement (e.g., the general statement in the **Model Review of the Literature** is: Several studies have assessed the relationship of environmental tobacco smoke (ETS) to cancer. Although the findings of these studies are considered to be inconclusive, the associations are indicative of potentially serious risks to nonsmokers exposed to ETS.)

## LEAPING TO OTHER CONTENT AREAS: REVIEW OF THE LITERATURE

**OBJECTIVE:** To make students aware that the strategies for writing a Review of the Literature that they have learned in this class are applicable to other classes as well.

**RATIONALE:** Very often students do not realize that the reading and writing strategies that they learn in one content area are applicable to other content areas.

### **PROCEDURES:**

1. Give students a copy of the handout: **Writing a Literature Review.**
2. Have students read the handout and discuss the applicability of the strategies to other content areas.

**HANDOUT: WRITING A LITERATURE REVIEW**

**WHAT YOU LEARNED ABOUT THE REVIEW OF THE LITERATURE IN HEALTH SCIENCE IS APPLICABLE TO OTHER CONTENT AREAS:**

**A Good Review of the Literature:**

- a. Includes a general statement about the topic,
- b. Includes summaries of articles connected by words like  
Moreover, Similarly, In addition, In contrast,  
However...,
- c. Is cohesive.

**IMPORTANT: In the SCIENCES (e.g., Biology), the Review of the Literature is part of the Introduction and Statement of Purpose.**

## WRITING THE INTRODUCTION AND STATEMENT OF PURPOSE: PART I

**OBJECTIVE:** To provide students with a model Introduction and Statement of Purpose and to help students evaluate the section.

**RATIONALE:** For most of the students in the Health Science 150 class, this is the first time that they have been asked to complete a data collection project. Therefore, modeling and evaluating a model Introduction and Statement of Purpose section will provide students with much needed guidance on how to complete the report.

### **PROCEDURES:**

1. Have students work in dyads and read the handout: **Model Introduction and Checklist.**
2. Using the Checklist, have students analyze the section.
3. When the dyads have completed step 2, they should compare their answers.

**HANDOUT: MODEL INTRODUCTION AND CHECKLIST**

**Instructions:** Read the Model Introduction and analyze it using the Checklist below.

Examinations are an important aspect of the American educational system. They play a critical role in the lives of college students, whose academic success or failure is often measured by multiple-choice exams. Therefore, it is not uncommon for college students to develop an intense fear of exams that inhibits them from performing satisfactorily.

While test anxiety may affect college students in general, it primarily influences the performance of those students who have high expectations regarding their school success. In fact, students with high expectations often believe that if they do not do well on an exam, their academic career is in danger.

If students want to succeed in the American university environment, they need to learn how to cope with test anxiety. Students need to develop appropriate test-taking mechanisms that will help them cope with test anxiety.

Although test anxiety may affect many university students, it is a major source of stress for me in particular. Test anxiety has affected my school performance to the extent that when I read a multiple-choice exam, I cannot recall any of the information presented during the lectures or in the textbook. Modifying my behavior regarding test anxiety is critical because lowering my stress will help me perform better on school exams.

Therefore, the purpose of this project is to find appropriate coping mechanisms that will reduce my anxiety when taking midterm and final examinations. Specifically, my goal is to develop some test-taking techniques that will help me manage my stress when taking school exams.

(Adapted from a student's paper.)

### CHECKLIST

#### The Introduction should:

- |   |     |    |
|---|-----|----|
| 1. Open with a general statement about the behavior investigated. Has the author included a general statement?<br>If your answer is YES, underline the statement.   | YES | NO |
| 2. Include a discussion about the population that is affected by the behavior investigated. Has the author described the population that is affected by the behavior investigated?<br>In one sentence, describe the population. | YES | NO |
| 3. Discuss why it is important to modify the behavior investigated. Has the author discussed why it is important to modify the behavior investigated?<br>In one sentence, summarize why it is important to modify the behavior. | YES | NO |
| 4. Discuss how the behavior affects the student writing the Introduction. Has the author discussed how the behavior affects him/her?<br>In one sentence, summarize how the behavior affects the student.                        | YES | NO |
| 5. Conclude with the purpose/goal of the project. Has the author concluded with a purpose statement?<br>Identify the purpose of the project.  | YES | NO |

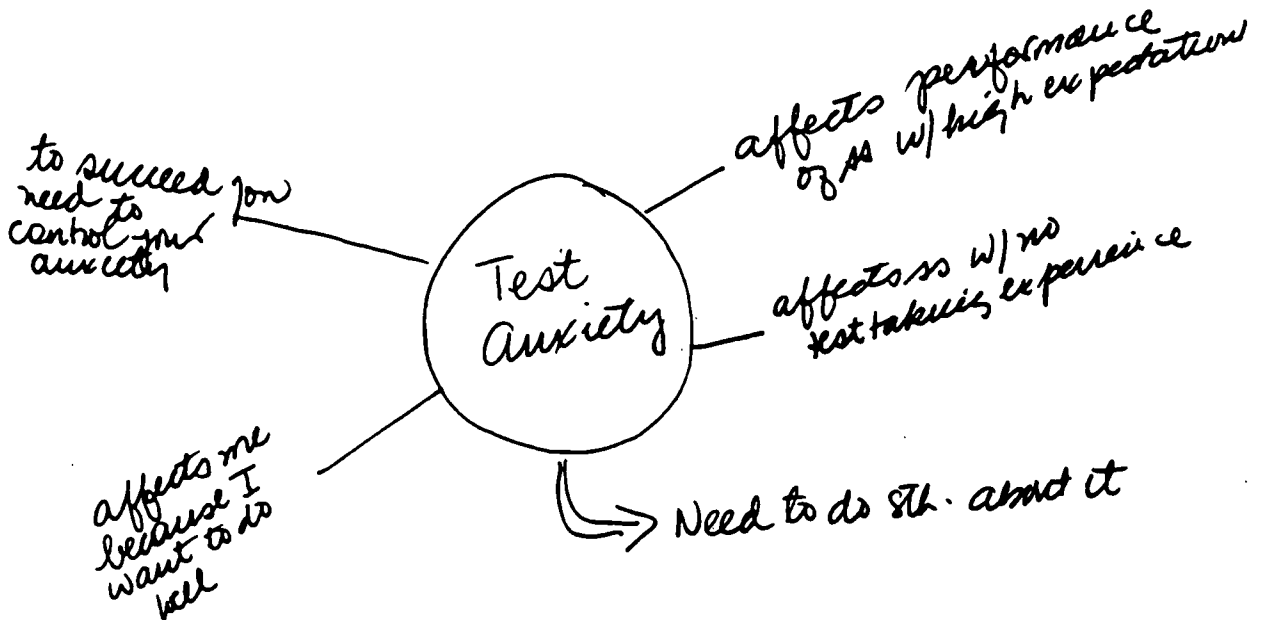
**WRITING THE INTRODUCTION AND STATEMENT OF PURPOSE: PART II**

**OBJECTIVE:** To teach students semantic webbing or mapping for the purpose of organizing ideas before students start writing the introduction to their papers.

**RATIONALE:** Semantic webbing is a prewriting activity that helps students organize ideas.

**PROCEDURES:** To model semantic webbing, use the topic of test anxiety.

1. Place the topic in the center of the board and circle it.
2. Ask your students to read the Introduction and Statement of Purpose in the Behavior Modification Project Guidelines, and generate ideas regarding test anxiety and its effect on college students, in general, and on them in particular.
3. As students generate ideas, place them in circles that stem from the circled topic (see example below).
4. When students have completed the web, have them decide the order in which they will present their ideas in the Introduction and Statement of Purpose.
5. Students can proceed to write their first draft.



### WRITING THE INTRODUCTION AND STATEMENT OF PURPOSE: PART III

**OBJECTIVE:** To help students evaluate their classmates' Introductions.

**RATIONALE:** By working with the peer feedback form, students will enhance their drafts and will understand the importance of revising them.

**PROCEDURES:**

1. Explain to the students that the purpose of this activity is to help them revise their classmates' drafts. Emphasize the importance of giving constructive feedback.
2. Working in dyads, students will exchange what they have written.
3. Students will read what their classmates have written and will give them feedback using the handout: **Assessing the Introduction and Statement of Purpose.**
4. After students have completed the activity, have a group of students share one or two corrections that they have made.
5. Follow-up: Have students revise their drafts using their classmates' comments.

**Note to Study Group Leader:** This activity can be adapted to the students' needs and the study group time constraints. The study group leader should decide whether or not she/he wants to skip part of the activity.



**HANDOUT: ASSESSING THE INTRODUCTION AND STATEMENT OF PURPOSE****The Introduction:**

- |   |     |    |
|---|-----|----|
| 1. Opened with a general statement about the behavior investigated.<br>If your answer is NO, make a suggestion to improve the Introduction. | YES | NO |
| 2. Included a discussion about the population that is affected by the behavior investigated.<br>If your answer is NO, make a suggestion.    | YES | NO |
| 3. Discussed why it is important to modify the behavior investigated.<br>If your answer is NO, make a suggestion.                           | YES | NO |
| 4. Discussed how the behavior affected the writer.<br>If your answer is NO, make a suggestion.  | YES | NO |
| 5. Concluded with the statement of purpose.<br>If your answer is NO, make a suggestion.   | YES | NO |

**LEAPING TO OTHER CONTENT AREAS:  
INTRODUCTION AND STATEMENT OF PURPOSE**

**OBJECTIVE:** To make students aware that the strategies they have learned in this class are applicable to their other classes.

**RATIONALE:** Very often students do not realize that the reading and writing strategies they learn in one content area are applicable to other content areas.

**PROCEDURES:**

1. Give students a copy of the handout: **Writing an Introduction and Statement of Purpose.**
2. Have students read the handout and discuss the applicability of the strategies listed to other content areas.

**HANDOUT: WRITING AN INTRODUCTION AND STATEMENT OF PURPOSE**

**WHAT YOU LEARNED ABOUT THE INTRODUCTION AND STATEMENT OF PURPOSE IN HEALTH SCIENCE IS APPLICABLE TO OTHER CONTENT AREAS:**

**A Good Introduction and Statement of Purpose:**

- a. Opens with a general statement about the topic of the paper,
- b. Proceeds- or **Narrows-** from general to specific ideas:  
(e.g., how smoking affects society (general idea).  
how smoking affects Hispanic children  
(specific idea), and
- c. **Narrows** from specific ideas to the
  1. **Purpose statement** (The purpose of this paper was to investigate...) **OR**
  2. **Thesis statement of opinion** (People who smoke heavily develop physical and psychological dependency. In turn, dependency contributes to sickness and premature death.)

**IMPORTANT:** In the **SCIENCES** (e.g., Biology), the Introduction includes the Review of the Literature.

## WRITING THE STRATEGIES AND MOTIVATORS SECTION

**OBJECTIVE:** To provide students with a model for the Strategies and Motivators section of the paper and guidelines on how to write it.

**RATIONALE:** This activity will help students organize for the purposes of writing the section.

### **PROCEDURES:**

1. Give students a copy of the handout: **Model Strategies and Motivators Section.**
2. Students will analyze the section by answering the questions below:
  - A. How long is the section?
  - B. What is the general statement?
  - C. Did the writer explain how the motivators helped her/him modify her/his behavior?
3. Then have students brainstorm ideas and decide:
  - A. How many motivators they used
  - B. How the motivators helped them achieve their goal
  - C. What the general statement is.
4. Then, students can proceed to write their first draft.

**HANDOUT: MODEL STRATEGIES AND MOTIVATORS SECTION**

**Instructions:** Read the section below and analyze it by answering the questions.

1. How long is the section?
2. What did the writer do in the first sentence?
3. Did the writer explain how the motivators helped her/him modify her/his behavior?

In order to reduce the amount of caffeine intake, I employed three motivators. First, my partner and I met weekly to discuss how much coffee I was drinking. My partner made me think about when and why I would have coffee. The second motivator I used consisted of "talking to myself" when I felt the need for coffee. For example, I told myself that drinking more coffee would make me feel nervous and would change my sleeping habits.

The last motivator I used to drink less coffee consisted of drinking mineral water right at the time that I felt the need for a cup of coffee. Drinking water was particularly helpful because it prevented me from thinking about drinking coffee.

(Adapted from a student paper.)

## GETTING READY TO WRITE THE RESULTS, DISCUSSION, AND PERSONAL REFLECTIONS SECTION: REDUCING THE DATA IN THE LOGS

**OBJECTIVE:** To show students how to reduce their data and identify patterns of behavior in their 3rd- and 8th-week logs for the purposes of writing the Results, Discussion, and Personal Reflection section.

**RATIONALE:** Prior to writing the Results section, students will need to reduce the data in their logs.

### PROCEDURES:

1. Distribute copies of the handout: **Sample Data Reduction Sheet**. Emphasize that in order to write the Results section, students will need to reduce their data. If they do, writing the results will be an easy task to complete.
2. Tell students that to reduce the data in their logs, they will:
  - A. Draw two columns: one for week 3 and the other for week 8.
  - B. Insert as many sections as they had in their original logs (i.e., when, where).
  - C. Look at each of the sections (e.g., when) and identify patterns:  
For example, if the students had coffee five days in the morning, then **in the morning** is a pattern. In contrast, if the students had coffee only two evenings, **in the evening** is **NOT** a pattern.
  - D. Complete the new log.
  - E. Use only one page to record patterns regarding the 3rd and the 8th week logs.
3. Tell students that working in dyads, they will look at one of the students' 3rd week logs and will identify one pattern regarding the behavior they want to modify.
4. Tell students that they will work in dyads once more and, looking at the 8th week log, they will identify another pattern regarding the behavior they want to modify.

## HANDOUT: SAMPLE DATA REDUCTION SHEET

Behavior I want to Modify:  
How Much Coffee I Drink

I had coffee

Week 3

When

- in the morning
- between classes
- in the evening

Where

- on campus
- at home (w/ friends)
- at home (w/ mum)

EXCUSES  
FOR HAVING  
COFFEE

- free time
- company
- boredom

HOW MANY  
CUPS/DAY

• 10

Week 8

- in the morning

- at home

- company

• 3

## GUIDELINES FOR WRITING THE RESULTS, DISCUSSION, AND PERSONAL REFLECTIONS SECTION

**OBJECTIVE:** To provide students with guidelines regarding how to write the Results, Discussion, and Personal Reflections section.

**RATIONALE:** For most of the students in the Health Science 150 class, this is the first time that they have been asked to complete a data collection project. This activity will provide students with structure regarding how to write the Results, Discussion, and Personal Reflections section.

### **PROCEDURES:**

1. Have students work in dyads and read the handout: **Steps in Writing the Results, Discussion, and Personal Reflections Section.**
2. Encourage students to engage in discussion and ask questions, if necessary.



**HANDOUT: STEPS IN WRITING THE RESULTS, DISCUSSION, AND PERSONAL REFLECTIONS SECTION**

**Steps in Writing the Section:**

1. Look at your Reduced Logs - Weeks 3 and 8.
2. Make a general statement about what you see in the logs. (e.g., The results of the behavior modification show that there was a reduction in the amount of caffeine intake.)
3. Support your statement with specific examples (e.g., While in week 3 I had 10 cups of coffee, in week 8 I had 3 cups of coffee daily.). Be objective. Do not include your personal opinion. Describe what you see in your log.
4. Look at your "Reduced Logs - Weeks 3 and 8" again. Look for similarities and differences between what you did in weeks 3 and 8 in terms of the categories (when, where,...) in your reduced logs. Be objective. Describe what you see in your log. To show similarities between weeks 3 and 8, you can say something like this: In week 3, I..... Similarly, in week 8, I.... To show contrast between weeks 3 and 8, you can say something like this: In week 3, I..... In contrast, in week 8, I...
5. Immediately after describing similarities and differences between weeks 3 and 8, interpret the results: What do your results mean? Tell the reader what YOU think the results MEAN.
6. Then, look at your Review of the Literature section and identify articles that support or do not support your results. To support your interpretations or findings with the literature use phrases like: This idea is supported by .... The idea/concept of ..... is emphasized by .....who argued/concluded/showed that...
7. The last (2) paragraph(s) should be devoted to your personal reflections. How did this study affect your behavior? How important were your motivators in helping you achieve your goal?

### HANDOUT: CHECKLIST FOR THE RESULTS, DISCUSSION, AND PERSONAL REFLECTIONS SECTION

**Instructions:** Use the checklist below to help you analyze your classmate's Results, Discussion, and Personal Reflections section.

- |   |     |    |
|---|-----|----|
| 1. Did the writer make a general statement about the logs?<br>If your answer is NO, make a suggestion to improve the section.                           | YES | NO |
| 2. Did the writer support the statement with specific examples?<br>If your answer is NO, make a suggestion.   | YES | NO |
| 3. Did the writer discuss similarities and/or differences between the 3rd and the 8th week logs?<br>If your answer is NO, make a suggestion.            | YES | NO |
| 4. Did the writer interpret the results?<br>If your answer is NO, make a suggestion.  | YES | NO |
| 5. Did the writer support the interpretation with the articles cited in the Review of the Literature?<br>If your answer is NO, make a suggestion.       | YES | NO |
| 6. Did the writer include his/her personal reflections regarding how the project affected his/her behavior?<br>If your answer is NO, make a suggestion. | YES | NO |

**LEAPING TO OTHER CONTENT AREAS: RESULTS AND DISCUSSION**

**OBJECTIVE:** To make students aware that the strategies they learned in this class are applicable to other content areas.

**RATIONALE:** Very often, students do not realize that the reading and writing strategies they learn in one content area are applicable to other content areas.

**PROCEDURES:**

1. Give students a copy of the handout: **Writing Up a Results and Discussion Section.**
2. Have students read the handout and discuss how the strategies are applicable to other content areas.

**HANDOUT: WRITING UP A RESULTS AND DISCUSSION SECTION**

**WHAT YOU LEARNED ABOUT THE RESULTS AND DISCUSSION IN HEALTH SCIENCE IS APPLICABLE TO OTHER CONTENT AREAS:**

**A Good Results section:**

- a. Makes a general statement about the results of the study,
- b. Supports the general statement with specific examples, and
- c. Is objective.

**A Good Discussion section:**

- a. Interprets the results (discusses what the results mean from the point of view of the writer - the writer's opinion is what counts), and
- b. Supports or rejects the interpretation/results with articles cited in the Review of the Literature.

**IMPORTANT: Sometimes, the results appear in a section titled Results and the discussion appears in another section titled Discussion.**

## WRITING THE CONCLUSION SECTION: PART I

**OBJECTIVE:** To provide students with a model Conclusion section and to help students evaluate the section.

**RATIONALE:** For most of the students in the Health Science 150 class, this is the first time that they have been asked to complete a data collection project. Therefore, modeling and evaluating a model Conclusion section will provide students with guidance on how to complete the writing assignment.

### **PROCEDURES:**

1. Have students work in dyads and read the handout: **Model Conclusion**.
2. Using the questions, have students analyze the section.
3. When the dyads have completed step 2, they should compare their answers.

**HANDOUT: MODEL CONCLUSION**

**Instructions:** Read the Model Conclusion and analyze it using the questions below.

1. How long is the conclusion?
2. What is the writer doing in the conclusion?
3. Is the conclusion based upon the results of the project?

The results of this project have been positive in the sense that I have reduced my daily consumption of coffee. Having a friend who helped me monitor my behavior was critical in helping me modify my behavior regarding coffee consumption.

In order to drink as little coffee as possible, I will use positive self-talk and I will monitor myself when I feel the urge for coffee. Most importantly, I will enlist my friend's assistance in my effort to consume less coffee and sustain my new behavior.

(Adapted from a student paper.)

## WRITING THE CONCLUSION SECTION: PART II

**OBJECTIVE:** To help students organize the Conclusion section.

**RATIONALE:** Students sometimes have difficulty organizing sections of their papers. Outlining will help students order their ideas.

**PROCEDURES:** Working in dyads or small groups, students will write a conclusion following the steps below.

1. Have students look at the purpose statement (in the Introduction) and the results section and decide whether or not they have achieved their goals. (This step is critical because the conclusion has to be based upon the results of the behavior modification project).
2. Tell students to think of what/who helped them modify their behavior.
3. Tell students that in writing the conclusion, they have to use ideas from the body of their paper.
4. Tell students to make a prediction based on their results. What will they need to do to sustain their behavior?
5. Give students copies of the handout: **Steps in Writing the Conclusion Section**. Students will read the handout and ask clarifying questions, if necessary.

## HANDOUT: STEPS IN WRITING THE CONCLUSION SECTION

**Instructions:** The steps below will help you write your Conclusion section.

1. Look at your purpose statement and the results section and decide whether or not you have achieved your goal. (This step is critical because the conclusion has to be based upon your results).
2. Think of what/who helped you modify your behavior.
3. Use ideas from the body of your paper.
4. Make a prediction based on your results. What will you need to do to sustain your behavior?



## LEAPING TO OTHER CONTENT AREAS: WRITING A CONCLUSION

**OBJECTIVE:** To make students aware that the strategies they learned in this class are applicable to their other classes.

**RATIONALE:** Very often students do not realize that the reading and writing strategies they learn in one content area are applicable to other content areas.

### **PROCEDURES:**

1. Give students a copy of the handout: **Writing a Conclusion.**
2. Have students read the handout and discuss the applicability of the strategies listed to other content areas.

**HANDOUT: WRITING A CONCLUSION**

**WHAT YOU LEARNED ABOUT WRITING A CONCLUSION IN HEALTH SCIENCE IS APPLICABLE TO OTHER CONTENT AREAS:**

**A Good Conclusion:**

- a. Begins with a narrow statement based upon the results,
- b. Uses ideas from the body of paper, and
- c. Includes a prediction or a recommendation.

## SELF-EVALUATING YOUR BEHAVIOR MODIFICATION PROJECT

**OBJECTIVE:** To help students evaluate whether they have successfully completed the behavior modification project.

**RATIONALE:** This activity will help students decide whether or not their behavior modification project is complete or whether they need additional revision.

### **PROCEDURES:**

1. Give students copies of the handout: **Health Science Behavior Modification Project-Checklist.**
2. Have students self-evaluate their project and decide whether they have to make any changes.

**Note to Study Group Leader:** This activity can be adapted to the students' needs and the study group time constraints. The study group leader should decide whether or not she/he wants to skip part of the activity.

# HANDOUT: HEALTH SCIENCE BEHAVIOR MODIFICATION PROJECT - CHECKLIST

*Your project should be organized in this order: Introduction and Statement of Purpose, Review of the Literature, Strategies and Motivators Used to Achieve My Goal, Results, Discussion, and Personal Reflections, Conclusion, References, Logs.*

## ***Your INTRODUCTION AND STATEMENT OF PURPOSE section should***

- (1) Open with a general statement about the behavior being investigated.  
 Yes  No
- (2) Include a discussion about the population that is being affected by the behavior.  
 Yes  No
- (3) Discuss how the behavior affects you.  
 Yes  No
- (4) Conclude with a purpose statement "The purpose of this project was to...  
 Yes  No

## ***Your REVIEW OF THE LITERATURE section should***

- (5) Start with a general statement (What do all the articles say about the behavior investigated?).  
 Yes  No
- (6) Include summaries of two articles from the Journal of Health Education or Journal of School Health.  
 Yes  No
- (7) Include summaries of two articles from two magazines (eg. Time, Newsweek,.....).  
 Yes  No
- (8) Include a summary based on a section in your textbook.  
 Yes  No

## ***Your STRATEGIES AND MOTIVATORS section should***

- (9) Briefly describe the motivators or/and strategies that you used to achieve your goal. (Who and/or what helped you?)  
 Yes  No

## ***Your RESULTS, DISCUSSION, AND PERSONAL REFLECTIONS section should***

- (10) Include a general statement about the logs (What do the logs show?).  
 Yes  No

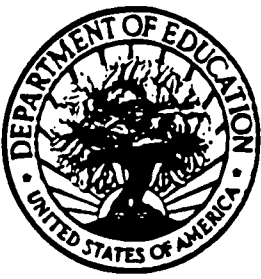
- (11) Support the general statement with specific examples.  
 Yes  No
- (12) Include an interpretation of the results (What do the results mean?).  
 Yes  No
- (13) Support your interpretation/results with the literature.  
 Yes  No
- (14) Discuss how the behavior modification project affected your behavior...  
 Yes  No

***Your CONCLUSION section should***

- (15) Draw a logical conclusion based on the logs.  
 Yes  No
- (16) Explain what you need to do to sustain your "new" behavior.  
 Yes  No

***Your REFERENCES section should***

- (17) Present five references in alphabetical order.  
 Yes  No



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