

**EDUCATIONAL FUTURES, CULTURE CHANGE, AND THE COMMUNITY  
COLLEGE: INTEGRATING LANGUAGE, TECHNOLOGY, AND DIVERSITY  
INTO THE ANTHROPOLOGICAL CURRICULUM**

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An Internship Analysis

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## ABSTRACT

This internship thesis is a discussion of the processes involved in creating a curriculum for introductory anthropology students. Centered around presenting language and culture in an applied (relevant) manner, the curriculum seeks to accommodate multiple learning styles, ethnic and cultural diversity, and age-related differences between students. Also, teaching the relationship between language and culture is a precarious area which is often a trouble spot for instructors to present to students. The creation and use of a technology-driven interface allows presentation of material through a multimedia format which would not be available through traditional lecture-mode instruction. Self-paced and encouraging individual or group collaboration, the language and culture simulation allows instructors to tailor the educational experience to suit the needs of their students and classroom environment.

This internship thesis not only discusses the theory and foundations behind the development of educational curriculum from an applied perspective, but delves into the realm of organizational culture, detailing the intersystemic relationship that exists between micro level (instructor, department, college/university) and macro level (district, state, national) processes, and how this affects the development of curriculum. Furthermore, the dynamic nature of curriculum development leads to theoretical speculation on cultural and educational futures, and how these forces play fundamental roles in the planning, implementation, and evaluation processes of curriculum research and design.

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## **CHAPTER 1**

### **The Birth of Athena: The American Community College**

The history of the American community college system is derived from the debate over the purpose of education in American culture. As the industrial revolution requiring a specialized workforce took hold in the 1800s, there was a realization that an apprenticeship might not provide the necessary skills to produce competent workers. Through state land grants and other federal legislation, monies were set aside to establish the first public universities (Cohen and Brawer 1989:21). About the same time it was realized that an education somewhere between that of a high school and a university would be needed to provide the knowledge and training necessary to fill emerging industry positions.

The first “skilled trade” programs were established at universities as “vo-tech” programs in the mid-1800s (Cohen and Brawer 1989:21). While still maintaining emphasis on a holistic liberal arts education, the new skilled-trade training would produce workers who had both the technical know-how and critical thinking skills necessary for new technologies. This new generation of specially trained individuals were flexible, having the skills necessary for both traditional occupations, as well as, training for mechanical trades.

The changes in the university systems were not alone. Because more people would be in need of higher education, the first private junior college, the Lewis Institute, was formed in 1896 in Chicago (Berg 1994: personal communication). This was closely followed by the first public junior college, Joliet Junior College, in 1901 in Joliet, Illinois (Berg 1994: personal communication). An extension of the K-12 district, Joliet Junior

College employed secondary high school teachers. In fact, all junior colleges developed immediately thereafter were extensions of secondary schools (Cohen and Brawer 1989:7). These junior colleges, while additions to public school systems, served as transfer institutions to four year colleges and universities; the now-common Associate of Arts or Science degrees had not yet been created.

The start of the 20th century saw a surge in the number of junior colleges. By 1930 there were 440 public junior colleges in the U.S. (Berg 1994: personal communication). This number continued to blossom throughout the 40s and 50s as GIs returned from WWII and had to be incorporated back into the educational system.

The passage of the GI Bill of Rights was a milestone in federal support for education. Passed by Congress in 1944 as the “Serviceman’s Readjustment Act, the GI Bill allocated monies to the Department of Veteran’s Affairs specifically for re-educating GIs for new service and industry oriented jobs. Since the legislation was passed, over 20 million veterans have received GI Bill training under what has become known as the single most important piece of legislation passed relating to support for higher education and technical training in this country (The World Book Encyclopedia 1990:359). In 1938, only 1.25 million students attended all American universities, colleges, and two-year institutions (White 1982:4). Following the passage of the first GI Bill legislation, almost half (7.8 million) of sixteen million veterans who had served in the armed forces during WWII decided to attend institutions of higher education in the United States (White 1982:4). Subsequently, other GI Bills have been added to the 1944 legislation, including the Veteran’s Readjustment Act (1966) and the Montgomery GI Bill (1985) (The World Book Encyclopedia (1990:359).

The post-WWII period (1940s to 1950s) brought about a need for more highly-skilled laborers. As a result, junior colleges began to take on some of the role of training people to acquire these new skills. Many more specialized schools were founded of a vocational nature, instructing students in applied trades like auto mechanics, electrical engineering, or secretarial science. No longer were the programs of the “intermediate” schools restricted to pre-college transfer courses. In fact, many junior colleges maintained a balance between offering transfer courses and special vo-tech programs. These vocational education programs culminated in Associate of Arts or Science degrees, or certificates declaring one’s competency in a particular field.

The 60s and 70s saw a profound increase in the number of trade schools. As these numbers increased, the number of newly created junior colleges reached a peak with little additional growth. Junior colleges began to become much more community-centered and controlled. They began offering specialized courses to meet the needs and desires of a certain geographic area. These types of courses have varied from square dancing to field irrigation techniques, depending on local interest. Many junior colleges began to offer such a number of these special courses and trade programs that they changed their names to community colleges<sup>1</sup>. Although the names may vary, *community college* has been accepted as a general term for all junior, vocational / technical, and trade colleges.

This background information leads us to the situation we have today. There are now community colleges in or near most towns, cities, or metropolitan areas. These

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<sup>1</sup> There is some confusion between the use of the terms *community college* and *junior college*. Community colleges are any institution accredited to award the AA or AS degrees as its highest degree (Cohen and Brawer 1989:4-5). *Junior colleges* is a term that is rarely used anymore, applying to two-year transfer schools, most specifically not offering trade certificates or complete programs of study. In recent years,



colleges offer a wide variety of courses that serve local community needs as well as those of higher education in general.

Because these institutions are grounded in communities, a number of pertinent issues apply to community colleges that were previously of little or no concern to colleges and universities: community demographics, age, basic skills, culture and ethnicity, and futures studies. Each of these concerns has a direct influence on how the community college is organized, what its goals are, and its function within any given community.

First, community demographics play an important role in determining where community colleges are placed and what types of courses they will offer (London 1987:38). It is no surprise that the economic recession of the 70s led many more people to either return for an education or to continue their education in order to delay entry into the workplace or to learn new job-related skills (Cohen and Brawer 1989:31-32). At the same time, inflation and stagnation forced many younger workers to reside close to or stay in the same residence as their parents, or to continue residing in the same local communities (London 1987:36). Meanwhile, college costs began increasing and as the 80s approached, many people found themselves unable to afford traditional forms of higher education (Cohen and Brawer 1989:22,136). The national economy was leveling off and the service industry sector began to grow. Aside from the layoff of many blue collar workers, new service jobs offered little pay or benefits. It was in these trying times of economic difficulties that community colleges became an answer to labor problems. Established in rural areas, community colleges began offering night and weekend courses

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*community college* has come to be applied to both of these types of schools. I have chosen this term for all subsequent references to both junior colleges and trade schools.

which working individuals could attend on a part-time basis. Many of these courses were specifically designed to enhance already existing occupations by allowing workers to obtain additional skills they could use in their present occupations for professional advancement. Costs were kept low, allowing many previously disadvantaged people an opportunity for higher education and specific skills training (Cohen and Brawer 1989:136).

Community colleges not only grew by offering low-cost, experiential education<sup>2</sup>, but they did not employ rigorous admissions policies used by other institutions of higher learning. Many students flowed into and out of the system on a regular basis, and most attended part time. By lowering admissions standards, higher learning was made available to the poor, the disadvantaged, and many minorities who were either denied admission to a four-year institution, or could not afford to attend. No longer was higher education available only to those with a fat pocketbook, but to just about anyone, anywhere.

The position taken here is that many (though not all) colleges and universities have chosen for the most part to ignore community needs and wants. The same courses continue to be offered year after year, and looking across the board, programs and their requirements are essentially the same at one institution as they are at another. “Change” at the university level is a very slow process, but there are reasons for this phenomenon. First, colleges were founded on complementary principles: to build a holistic liberal arts oriented education for youth; to enrich minds about worldly events and cultures; and to educate people to become our nation’s future leaders. Second, because colleges (and

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<sup>2</sup> *Experiential education* is a “learning by doing” philosophy that believes people learn best by combining knowledge with hands-on learning experiences.

junior colleges) were founded on commensurate principles, similar programs developed. Third, the administrative hierarchy in institutions of higher learning is generally quite complex, resulting in a considerable amount of “cultural lag.” New programs such as Top Quality Management and other attempts to reduce bureaucracy take a fair amount of time to implement, making new ideas stale or obsolete by the time they are instituted. Not only must an idea pass through many hands before it is operationalized, but the complexity of levels makes it easy for the process to be terminated by any disinterested faction. It is therefore inevitable that “culture lag” will better contribute toward our understanding of the slow rate of organizational change in higher education. Last, institutions of higher education were generally located in or adjacent to major metropolitan areas. This geographic orientation meant that many rural students had to relocate in order to attend classes. For this reason, parents sent their children off instead of themselves to attend universities. The democratic principle of helping the next generation succeed at a level above your own became the norm<sup>3</sup>, encouraged by parents and reflected in the traditional liberal arts curriculum<sup>4</sup>. After all, parents had to continue working in order to support the education of their children, and universities were organized around full-time academic study, which would be impossible for working parents.

Job relocation, starting new jobs, and the creation of new jobs led many workers to seek out enrichment courses which provided training for specific economic sectors

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<sup>3</sup> See Margaret Meade’s 1971 work *And Keep Your Powder Dry* for foundations of the American success ethic.

<sup>4</sup>The word *curriculum* has two different definitions, whereby it may be applied. It can refer specifically to an individual course and the teaching methods /strategies employed in that course, or it can refer to the particular scope and sequencing of learning objectives within a program [multiple courses] (Posner 1992:10). My internship was specifically with one aspect of a course curriculum, referred to as a

such as in managerial, technical, or labor fields. Because of day jobs, these courses had to be at night or on weekends. It was a hardship for working parents to travel off to college and start “anew” taking courses they felt they didn’t need. For these above stated reasons, community colleges sprouted up throughout the rural areas of America, seeking to provide education for a largely non-mobile adult population who needed to adapt to a changing economy.

Age-related concerns were a second issue which faced community colleges. Four-year institutions were created to meet the needs of a younger student population with little life or job-related experiences. Personal development was a central issue since students were only eighteen years old and freshly out of secondary schools. In addition, high school graduates continuing on to post-secondary education often lacked experience in interpersonal skills. Living a sheltered life, they had not yet been exposed to life’s challenges and hardships.

The 1980s and 1990s have seen a rise in the number of non-traditional students<sup>5</sup>. Economic recession, retraining, and an increased value on education create a need for many more community colleges because the universities cannot handle the demographic load on the educational system alone, nor can they provide for experiential learning or specific job-related courses. Many of these nontraditional students have outside family or job obligations. They cannot attend college full time and they are not interested in liberal arts courses per se. Nontraditional students also are less likely to tolerate coursework which they cannot relate directly to their own lives and needs at the time.

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curriculum module, or teaching tool. My theoretical generalizations throughout this paper, however, refer to the application of anthropology to all stages of curriculum development, be they macro or micro level.  
<sup>5</sup> For the purposes of this paper, *nontraditional* refers specifically to re-entering students, single parents, and those 25 years of age or older.

While some students may be taking courses to eventually transfer to a university, many are not following this path. Associate of Arts or Science degrees can be obtained by attending school part time. Certificate programs are much the same; Most are designed and can be completed within two to three years of study.

Another issue which confronts community colleges is compensatory education<sup>6</sup> (Cohen and Brawer 1989:236). Many students attending community colleges have less-than-necessary skills to attend the university. Either their public school education has inadequately prepared them for higher education, or they slipped through the system without learning the necessary reading, writing, verbal, and quantitative skills necessary for survival as an adult in the general population (Cohen and Brawer 1989:233,236). In fact, even in colleges, many entering students need remedial courses in math, science, or English (Berg 1994: personal communication). These basic skills are essential components to success in future endeavors. Community colleges realize the importance of these skills and provide remedial courses to educate the adult-learner. Originally provided exclusively by the community college, some colleges and universities now subcontract with community colleges to provide these types of courses to their entry-level students<sup>7</sup>, realizing the experience community colleges have in lower-level and remedial course instruction (Cohen and Brawer 1989:310).

Lastly, community colleges must directly confront issues of ethnicity, race, and culture. If one looks at the average community college classroom and compares it to that of a college or university, the degree of diversity within the classroom is readily apparent.

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<sup>6</sup> *Compensatory education* is the accepted term for remedial skills education.

<sup>7</sup> Northern Arizona University has such a contract with Coconino County Community College to provide instructors for remedial math (MAT101x or 102x) or English (102x) courses on the Flagstaff campus (See the Northern Arizona University Spring 1995 Course Schedule for CCCC-taught courses).

Depending on local community demographic composition, the traditional Caucasian student might be the minority, or even a non-existent member within the classroom, since a school's student body tends to reflect the ethnic composition of its location (Cohen and Brawer 1989:43). This composition leads community college administrators and teachers to pay particular attention to respecting and acknowledging cultural differences within the classroom. Communication becomes important, for what may be an obvious statement to one student may not be understood by another due to his/her cultural background<sup>8</sup>. One such example of this phenomena is the elusive use of praise or punishment in the classroom. While it may be considered normal for a teacher to openly praise commendable student work, it may not be appropriate for a teacher to do so in front of classmates. Among some ethnicities, such as Hispanic students, it is a source of ridicule to be openly praised in front of a class (Carrasco 1994:61). Instead, silent praise is a better method to encourage a Hispanic student's performance.

By the late 1970s, 40 percent of all first-time college enrollees, full-time freshmen and two-thirds of all ethnic minority students were in two-year community college institutions (Cohen and Brawer 1979:17). No longer were community colleges the realm of the poor and disadvantaged, but were obligated to serving different people from many different backgrounds. The issues of changing demographics, age, culture and ethnicity, the rising costs of higher education, and basic skills training are a vital part of everyday functioning in the community college. They stimulate the growth of new colleges that provide a context for program refinement and new course / program creation.

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<sup>8</sup> See *Ethnographic Issues and Insights in the Multicultural Classroom* (1994) by Roberto L. Carrasco for examples of cross-cultural miscommunication within the classroom.

As community colleges began to sprout up in many areas of the country and their popularity grew among the general population, widespread acceptance by traditional institutions of higher learning followed closely behind. Districts, or conglomerations of community colleges by geographic area, formed around urban centers. These districts were less centralized than State Boards of Regents, relying on Boards of Trustees or local governing boards which include community members (Cohen and Brawer 1989:110). While still promoting autonomy and self-regulation of schools, districts were nevertheless loosely organized around providing advice and policy recommendations for individual colleges. The Maricopa Community College District is one such example of a semi-unified collection of colleges serving a community.

Community college districts are not the only form of administrative control over individual community colleges. Existing primarily in large urban areas where there may be a number of campuses or colleges, districts serve to unify (encourage) community colleges within a geographic area into offering similar structures to their programs [AA or AS] (Cohen and Brawer 1989:97). By structuring compatible programs similarly, both student and faculty transfer from one institution to another within a district is facilitated, and allocation of funds are made to colleges within the district (Cohen and Brawer 1989:97).

Arizona has what is known as a “State Board for Community Colleges” as its system of governance. Consisting of a series of officials appointed by the Governor of Arizona, the board oversees funding allocations and other administrative practices mentioned above (Berg 1994: personal communication). Arizona also employs a series of community college districts of which nine of the ten are single county, while Yuma

and La Paz counties form one district (Arizona Business Gazette 1995:30). Four counties (Apache, Greenlee, Santa Cruz, and Gila) do not have community college districts (Arizona Business Gazette 1995:30). Maricopa County has the largest population in the state at 2,122,101 total residents (U.S. Department of Commerce 1991). This number is nearly two-thirds of the 3,665,228 total persons in the state. Because the county contains the most people, it has the most community colleges within it, and also contains the majority of state business and industry.

The Maricopa Community College District [MCCD] is located in the Phoenix metropolitan area. Comprised of eleven community colleges located throughout the Phoenix metropolitan area, it is the second largest enrollment district in the nation with 153,484 students in Fall 1994 (Arizona Business Gazette 1995:30). Of these community colleges comprising the Maricopa District, Mesa Community College [MCC] is the largest with slightly over 21,000 students<sup>9</sup> (Tempe Community 1995:1). Maintaining itself as both a transfer and a community-oriented institution, MCC is the principle source of student transfers to Arizona's three state universities, particularly Arizona State University in Tempe (Christiansen 1995:2). The reasons for the high number of transfer students from MCC to the university is due in part on its emphasis on liberal arts undergraduate courses. These courses are specifically designed as transfer courses to the university. In addition to the Liberal Arts and Sciences, MCC also offers a large number of vocational, technical, and certification programs not available at ASU or other four-year institutions. As a community college serving both university and local needs, MCC is at the forefront of innovation. Not only has MCC established training partnerships

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<sup>9</sup>*Students* refers to the total head-count of full-time, part-time, and occasional students enrolled at MCC for Fall 1995. It does not include any special business-run seminars which are not open to the general public.



with business and industry, but it also has kept in touch with society's changing needs through constant assessment of its educational programs and the implementation of enhancements when appropriate. Courses are continuously revised and updated to maintain articulation with universities' changing needs, and new classes are developed that are innovative and future-oriented in both learning and delivery methods, notwithstanding the use of technology. It was because of this futures orientation and multicultural perspective on curriculum development that I approached MCC for my internship.

## CHAPTER 2

### Exploring the Labyrinth: Issues in Selecting and Entering an Internship

I began my search for an internship knowing that I wanted to do something involving education and multiculturalism, possibly using technology. After soliciting several institutions nationwide, I stumbled across MCC quite by accident. While on a technology tour of the Maricopa Community College District in the Fall of 1994, I discovered how far behind NAU and other universities were in using classroom diversity and technology to enhance learning experiences of students. I was currently enrolled in a community college education certification course at NAU and the tour seemed like the perfect opportunity to see and explore firsthand some of the topics which had been brought up in class.

I saw more on the tour than I had expected. From the new high-tech “open entry / open exit”<sup>10</sup> computing facility at Glendale Community College to a multi-user domain (MUD) simulation<sup>11</sup> at Phoenix College<sup>12</sup> and the Information Commons at Mesa Community College (designed to provide a specific area for computer-aided learning and distance-based education<sup>13</sup>), I saw appropriate use of new technologies to confront issues facing higher education today in the United States today. These issues include illiteracy, remedial skills building, accommodation for part-time students, and assistance for students who live in remote locations and cannot easily attend on-campus classes.

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<sup>10</sup> *Open entry/open exit* refers to a specific course format whereby instruction is self-paced and individualized, usually involving computers for delivery of material and/or testing comprehension.

<sup>11</sup> A *multi-user domain* or *MUD* is a text-based simulation which makes use of computers and the Internet to allow users to talk to one another and interact within a simulated cultural environment. In the case of Phoenix College, the simulation is called *MariMUSE* created by Greg Swan in 1993. He has since created a discussion list for educational computing applications.

<sup>12</sup> Phoenix College’s MUD is designed to improve basic literacy skills.

<sup>13</sup> *Distance learning* is the use of technology to allow an audience to receive, interact, and learn via modem, satellite, or other 2-way communication systems.

At Mesa Community College I met my preceptor to-be, Dr. Richard Effland. An archaeologist interested in evolution and physical anthropology, he has been quietly developing computer programs and simulations to teach archaeological and various cultural concepts to students in courses at MCC. In just a brief period of time, I knew that MCC would be ideal for me to apply my knowledge of anthropology and computer skills in programming, systems administration, and applications development. Having held various positions in the computer field for a number of years, and currently being a Database Administrator for the Department of Athletics at NAU, I knew that my media and technological skills were adequate for software development. I also knew that my coursework in anthropology had prepared me well for understanding the “content” component in instructional design. Thus, my computer skills would not be a waste after all. There was a way to integrate technology with curriculum.

I began to see my “calling” as Dr. Effland showed me application after application he or Dr. Brian Fagan at UCSB had developed. Before I left MCC that day, I discussed my internship interest with Dr. Effland and he mentioned that working for the Cultural Science Department might be possible, pending funding and other considerations. Needless to say, I was pleased to hear Dr. Effland’s interest. Money aside, the potential of developing instructional aids for students was a priority for me to pursue.

I returned to work and classes at NAU both mystified and driven by what I saw on the tour. It was still early in the Fall semester and I knew that my internship would have to involve some kind of curriculum research and development or I would not be happy. I began concentrating heavily on analyzing technological innovations in education. My

work centered around several themes: writing a paper on technology in higher education; giving a presentation in an educational foundations course on the theoretical foundations of distance-education and educational simulations; and, completing a study on the findings of research on new technologies for the teaching-learning environment of students and instructors.

In Spring 1995, I became involved with NAU's Native Science Connections NSF grant-funded project under Principal Investigators Drs. Roberto Carrasco, W. Sakiestewa Gilbert, and Thom Alcoze. The project's goal is to integrate indigenous perspectives into modules for teaching science to Southwest Indian populations. I was hired as a curriculum developer and media specialist, particularly to find ways to network teachers in remote locations, disseminate information, and to enhance science modules through appropriate technology. It was with this project that I began experimenting with World Wide Web (WWW) technology. Using the WWW, I created a point-and-click database accessing system for information on indigenous peoples. The information would then be available around the world via the Internet. I also created a networking resource manual for instructors at the schools involved in the project. At the time, I was unaware that learning to program on Macintosh computers and using the "Web" would be useful in my future internship. It seemed instead to be "just another computing job" that paid the bills and got me nowhere professionally in what I really wanted to do with my life--applied anthropology. It was quite a surprise how valuable these computer skills would be when I began searching for internships.

Several months into the Spring semester, the internship search process seemed hopeless. I sent out letters of inquiry almost everywhere, receiving rejections declaring

“no funding available,” or in many instances, no reply at all. I was adamant about being an active participant in R&D, and not just being a slave of ordinary routine for an organization. In addition, I also was concerned about the availability of an internship with an educational institution. Public schools are not open during the summer months, which limited my search to State Boards of Education or institutions of higher learning. The end of the semester was approaching and I was yet to have a concrete internship lined up. In a panic, I remembered my discussion with faculty in the Maricopa District and decided to apply there since the work sounded like it would fit my criteria of freedom, R&D, and opportunity to gain invaluable experience.

At the start of May, I finally negotiated my internship with Mesa Community College’s Cultural Sciences Department. The experience was to be specifically in designing new methods to communicate trouble spots in cultural anthropology to students. As listed below, my role would be threefold.

1. to work with MCC faculty to make changes in introductory anthropology curriculum in order to make material more relevant to students’ lives and teach applied issues in cultural anthropology.
2. to engage in cooperative research with District developers at the Maricopa Center for Learning and Instruction (MCLI) in Tempe in order to develop a strategy to bring the content to the audience through technology<sup>14</sup>.
3. to use research facilities at Arizona State University to find information about culture, ethnicity, language, and kinship that could be used to design a methodology for applied curriculum development in anthropology.

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<sup>14</sup> The MCLI is a nationally recognized institution for educational futures research. It is involved in all aspects of education reform, from curriculum design, to providing training seminars to faculty and administrators about new teaching methods and technologies, and providing facilities and resources for faculty to conduct research. The MCLI’s primary role is as a facilitator of educational innovation and reform.

Before entering my internship, I knew that I was to either work with kinship or language and culture as my research project. In the research process, I was to specifically find ways to develop interactive scenarios and simulations to teach the interrelationship of language, culture, and kinship systems in an applied “relevant” manner. The research process would be closely documented for future use by faculty wishing to develop similar instructional tools for their classes.

I began my internship with a revised version of my mission, which was to specifically explore language and culture, a problematic issue for instruction in the past (i.e. How can you teach the relationship between language, culture, and world view?) Since there is limited time to cover this important, yet difficult-to-present material in the classroom, it was suggested by staff that some type of interactive computer simulation could be used to teach these concepts to students. This implementation was to be a first for myself and for MCC.

Cooperation between MCC and the MCLI has been considerable in the past. Most of this cooperation has been in translating and transforming faculty ideas into workable interactive learning tools. MCC Anthropology has collaborated with MCLI systems developers many times in the past. While the results have been a number of useful teaching aids, faculty themes have been primarily archaeological in nature<sup>15</sup>. Changes in student demographics, globalization, and value systems have made refinement of the cultural curriculum a necessity<sup>16</sup>. New technologies are also now available that can facilitate cooperative learning, individualized instruction and combine

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<sup>15</sup> Since Dr. Effland has been the primary developer of computer-aided instructional tools, his concentration has been on simulations of archaeological excavations and primate evolution. He has been able to use these tools directly in his courses.

audio/visual multimedia to allow multiple learning styles in coursework. In this way, they meet the needs of a diverse multicultural student body. Through multimedia, simulations can focus on practical “real life” scenarios of human interactions within sociocultural settings. These interactions then can be viewed phenomenologically<sup>17</sup> from a variety of viewpoints, allowing students to see cultural differences in human interaction. For example, one can show a scene in which two Americans are having a discussion, one male, one female. Only by using pictures or a video clip can the idea be shown to students. On close inspection, the male appears to be dominating the discussion from his hand gestures and simulated tone of voice. On the other hand, the female is leaning away from the male and appears “submissive” or simply not in control of the situation. From an American viewpoint, the encounter reveals not only gender issues in language, but “power” as well. If the situation is analyzed by a corporate person, however, it may appear a “normal” part of the working world and “to be expected.” Yet from another view, such as that of a Japanese businessman, the situation may appear highly anti-cooperative and possibly offensive. The fact is that these situations happen around us, and we often fail to break out of our shell and observe how people interact from the perspective of another culture or ethnicity. To others, such as the Japanese mentioned above, a situation may have an entirely different meaning (or interpretation) than what was intended.

The relevancy of cultural curriculum has become a “hot topic” in education the past few years. In response to needs awareness, Jim Dator at the University of Hawaii’s

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<sup>16</sup> MCC has seen a recent influx of oriental students along with the continued growth of the Hispanic population. In addition, MCC’s contracts with business and industry have expanded greatly in recent years.

<sup>17</sup> Please refer to Chapter 3 for a more in-depth discussion of the role of phenomenology in educational anthropology.

Policy Research Center has coined the phrase “surfing the tsunamis of change” (Dator 1994). This metaphor is used to illustrate the rapid change which is before society. One can no longer look only at local micro-levels, but must be globally-orientated to see the “big picture” of change. On the micro level, communities are changing-- demographically and culturally. At the macro level, we are no longer in our own little world. Every action, be it economic or political, affects some other locale or population. Communities are constantly having to negotiate with people they call “outsiders” and there is little possibility for community or cultural isolation. Dator continues, “All media are now multimedia, and there is no longer any such thing as a local problem, much less a local community in which to hide, or a local culture to preserve...what we need to do is to adopt the attitude of a surfer: to turn around; study the waves, individually and collectively; then wax up our boards, plunge in, paddle out, and try to surf those tsunamis of change” (1994:90-91). Throughout my research as an educational anthropologist, I continually tried to maintain this global perspective in my work.



### **CHAPTER 3**

#### **Encountering the Sirens: The MCC Experience & Research Process**

My internship with Mesa Community College's Cultural Science Department began on June 5, 1995. Scheduled to last for ten weeks, it was to conclude on August 10, 1995. The setting was quite informal from the beginning. I met with my preceptor at 9 am to hear, "Good morning! I didn't expect you here so early!" And so from that moment on, I would be branded throughout the remainder of my internship as a "go getter" who was "always there"<sup>18</sup>.

It was on an already scorching Monday morning that a final decision was made about my internship duties: it was to deal specifically with the language and culture issue, and not kinship systems. Having two archaeologists as the full-time anthropology faculty members in the department meant that cultural anthropology was "everything else," be it linguistics or ethnology. Although one of them was responsible for teaching the majority of the cultural anthropology classes at MCC, that person was not specially trained in all aspects of cultural anthropology. Since I happened to be a cultural anthropologist, it was assumed that anything beyond primatology, human evolution, and excavation were cultural matters. In other words, the distinctions between the four subdisciplines within anthropology (archaeology, physical anthropology, cultural anthropology, and linguistics) were blurred; the first two pertaining to archaeologists, the latter two to "culturalists." I was therefore in charge of cultural and linguistic studies.

My introduction to other faculty was fast and furious. As soon as Dr. Effland and I had a moment to get better acquainted, I was whisked off and introduced to the Cultural

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<sup>18</sup> I sometimes wonder if people thought I slept at MCC as I was usually the last person out at night and one of the first to arrive in the morning.

Science chairperson, Mr. Jack Peterson, and to the office staff. The welcome was warm and I could already tell that the Summer must be a more relaxed time than during the Fall or Spring semesters. Everyone seemed excited to have a new face around the department, and offered their willingness to input advice or provide assistance should any be needed<sup>19</sup>.

After introductions within the Social and Cultural Sciences building were completed, I discovered that Dr. Sherry Lerner, the other full-time faculty member who was to help guide me in my research, was gone on business to New Mexico and she was not going to be around for several weeks. Her absence did not seem a problem at the time, since I was just adapting to my new environment.

When introductions were over, I was shown my “office.” To no surprise, my office was a workroom adjacent to the department office<sup>20</sup>. Inside was just about everything I would need, from my own NeXT computer workstation<sup>21</sup> to a Macintosh computer and audio/video equipment. Everything I would need to complete my tasks was there.

I began my research by conducting an evaluation of current texts and syllabi used in the introductory anthropology course, *ASB102: Introduction to Social/Cultural Anthropology*. Since I was to look specifically at language, I found that chapters in current texts were for the most part organized to cover theoretical and historical linguistics with some mentioning of sociocultural issues. By and large, there was very little mention of the applied linguistics or sociocultural issues that could be directly

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<sup>19</sup> I found this an interesting phenomenon in my transitional status from Graduate Student to professional researcher. Age did not seem to be a barrier towards developing collegial relationships within the college.

<sup>20</sup> All part-time faculty share a room at MCC containing several desks. Due to the number of people regularly sharing the room, I was allowed to use a separate facility for my research.

related to everyday experiences of students. Instead, texts took traditional stances on teaching about language, differentiating it from other parts of the sociocultural system instead of introducing “language and world view” as complimentary parts of culture. This compartmentalized approach seemed confusing and illogical to me. As I scanned introductory text after introductory text, I saw the same pattern: every one trying to fit everything about the concept of “language & culture” into its own chapter, comprising at most 10-15 pages. While remembering that these were introductory textbooks, I was more than slightly concerned with this “isolationist” strategy. The text which I saw as presenting the most culturally relevant examples was by Gary Ferraro entitled *Cultural Anthropology: An Applied Perspective* (1995). This text contained window boxes which pointed out examples of “cross cultural miscues.” They were scattered throughout the text at regular intervals and provided a nice alternative to simply reading about themes, looking at diagrams, and trying to relate to examples of cultural differences shown among “exotic” peoples in “exotic” locales. The “cross cultural miscue” windows were integrative as well. While cultural themes were still divided by chapters, the windows provided examples of each theme within a sociocultural setting. They also included themes from previous chapters whenever possible, so that the ideas presented in each subsequent chapter would build upon previous knowledge.

Ferraro’s text also included several chapters relating specifically to applied anthropology and speculative futures. Placed at the conclusion of the book, these chapters did a good job of integrating the themes mentioned in previous chapters. The chapter on applied anthropology showed anthropologists at work in real world situations,

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<sup>21</sup> This is a networked “stand-alone” computer running a version of the UNIX operating system. It allows the user to perform several high-speed and graphics intensive tasks at once.

solving real world problems. Beyond this chapter, the chapter on the future allowed students to think critically about our own existence and where we may be headed as the world moves into the next millennium.

I spent the next week constructing a list of primary themes that are significant when discussing language and culture. Exploring any and every issue on language and culture I could find, I ended up at Arizona State University's Hayden library on a daily basis, reading and compiling a list of important themes. Moreover, I received input from a part-time instructor currently teaching the introductory course at MCC. A Ph.D. candidate at ASU as well, Steve Perkins had been teaching at MCC for several years; He was even generous enough to give me a copy of his lecture notes. By interviewing him and other faculty, staff, and students, I was able to gain an understanding of each person's particular slant on the language issue: Dr. Effland was interested in biological, genetic, and semantic issues of language; Dr. Lerner with gender and power; and still others were concerned with nonverbal communication or primate language studies. I consolidated these perspectives by creating an initial outline of topics which provided a contextual framework for the placement of my ideas. The following topics I considered central to understanding anthropological linguistics<sup>22</sup>:

- Nonverbal Communication and Language
  - Proxemics
  - Eye Contact
  - Senses
  
- Verbal Communication and Language Change
  - Slang Expressions
  - Signing and the Spoken Word
  - Language Differentiation

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<sup>22</sup> See *Appendix B* for a formal listing of initial content areas and elaboration of the themes detailed here.

- Language Development
  - Historical Issues
  - Language Production & Thought Processes
  - Language and Primates
  - Language Change and Language Preservation

While serving well as an initial outline, this list of topics and method of organization proved to be inadequate to convey the issues I wanted to cover in the curriculum module. After submitting the proposal to my preceptor, we held a short meeting to discuss the project's focus. At that time, I was given additional articles to read, as well as, videotaped specials from public television and cable. The feedback I received from Dr. Effland proved very useful for reworking the thematic content of the simulation. With his recommendations, I was able to re-think my original plan. The result of this re-thinking was the creation of a proposal outline, which I completed at the end of the second week of my internship<sup>23</sup>. The outline divided the curriculum module into four primary content areas. They were:

1. Theoretical linguistics
2. Historical linguistics
3. Sociolinguistics
4. Applied linguistics

Once I had defined the key areas which I could use for organizing the content of the simulation, I annotated each of the four content areas, plugging in each of the issues I wanted to cover from my initial outline under the proper heading. It was not only a useful method for organizing my notes, but it provided a way to see interrelationships between ideas that could be easily incorporated into the simulation itself. After

completing this reorganization, I met again with my preceptor. He liked the changes and indicated that they were much more holistic than the disjointed list I had provided previously.

As the internship progressed, I became increasingly involved in the everyday workings of the department. I learned who to go to for whatever I needed, be it supplies, advice, or technical help. In the following weeks, I began construction of a flowchart design for the overall layout of the simulation. This included screens of the simulation with their accompanying text layouts. Together, this material synthesized all of the data I had currently collected.

Constructing a curriculum, particularly any type of simulation or game, is much like making a movie or a play. Each section is analogous to an individual act in a script. The difference at this point of time is that while the “play” will eventually reach an end, it has a format which allows the “viewer” to jump from one part of the play to another.

At that point of my internship, I had only explored content, and as yet, no formal type of computer application was chosen for the simulation. It was clear that sound, video, text, pictures, and animation would greatly enhance the presentation of material, but it was best at that point not to restrict creative ingenuity by limiting the simulation to a specific type of software that might or might not allow certain types of interactive methods.

Several issues are important when choosing a platform for presenting content material to its intended audience. In order to maximize the effectiveness of any given computer-aided learning device or curriculum, the following must be considered:

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<sup>23</sup> See *Appendix B* for the proposal outline and detailed explanations of each of the four content areas.

- Portability
- Sustainability
- Flexibility
- Ease of use

*Portability*, suggests the learning device can be readily used in different locations. *Sustainability*, suggests that the device can be used for a relatively long period of time before becoming obsolete. *Flexibility*, suggests that the curriculum itself can be easily modified as changes become both apparent and necessary. The term *flexibility* includes both flexibility in content as well as flexibility in method of application. Lastly, *ease of use* suggests that the device should be just as easy to use for novices as for the experienced user (Biglow 1994b).

The beginning of July saw the completion of a series of micro-flowcharts drafted on paper and the completion of text/design layouts for several areas of the simulation. A meeting with both Drs. Effland and Lerner after the Fourth of July revealed their interest in the project to date. During the meeting it was decided that a *HyperText Markup Language [HTML]* format would be a reasonable solution to maximize ease of use by students, while still allowing sound, text, and pictures to be included in the simulation. By using what is known as HTML, the simulation could be placed on the college computer system and accessed via the World Wide Web [WWW] from MCC, other colleges in the district, and remotely from other institutions worldwide.

HTML is a part of a new generation of media tools commonly known as “hypermedia.” As a form of hypermedia, HTML allows a user to explore text in a non-sequential manner (Foulger 1994:59). Traditional texts are arranged very linearly,

meaning that the reader must progress from the beginning to the end of the text in order to understand what has been read. In contrast, hypermedia breaks this serialization by allowing the text to be organized non-sequentially. Using what are known as “links,” a user can jump from one screen of text to another. In other words, a screen that introduces two or more ideas will likely point to several other screens that explain ideas in additional detail. These screens (links) will point to additional screens of related or more detailed material. “Except for the paths which join the links together, the order in which the links are followed, if at all, is left entirely to the reader [learner]” (Foulger 1994:60).

Another advantage to using an HTML format, is that by using HTML and the Web, the language and culture simulation would be accessible on-campus as well as off. Including text windows and “critical thinking” questions interspersed throughout the simulation can add to its flexibility. Instructors are able to assign only particular areas to students based on instructor, course, or student interest. This format also is useful because it meets all the criteria for building an effective computer-aided tool and curriculum.

A high point was reached when I was able to do some participant observation of human-computer interaction. One day, my preceptor took his students to the Information Commons, a computerized learning lab in the MCC library, to have them run through a computer simulation of evolution for his course, *ASM101 Human Origins and the Evolution of Culture*. By watching, helping, and teaching students who had questions about the content, I was able to see how different learning styles made themselves



apparent in the class. I saw interaction patterns which influenced how I outlined and constructed the simulation for the computer system<sup>24</sup>.

The remainder of the internship was composed of department and district meetings and presentations. These meetings consisted of conferences with departmental faculty on project progress, and presenting my simulation to MCLI personnel. My progress was then evaluated and additional feedback received. One thing I learned, is that meetings and presentations are a regular part of the evaluation process in curriculum research and development, or administration in general. There were times that I had only a few hours notice to put together a presentation for MCC faculty and District personnel. Stressed beyond belief, I learned that these kinds of moments increase productivity and enable the researcher to concentrate fully on the work at-hand.

As I began to shift into the final weeks of my internship, I was able to take everybody's suggestions and use them to focus on creating a huge diagram of the simulation, constructing text pages, scanning pictures to illustrate my points, and programming an initial layout of the simulation onto a UNIX machine at MCC<sup>25</sup>. Many early mornings, hot days, and late evenings were spent completing as much of the simulation as possible before the conclusion of my internship<sup>26</sup>.

The process of the internship enabled me to instigate multiple methods of research and design techniques in curriculum development. They were: curriculum analysis, participant observation, needs assessment, ethnographic (futures) interviewing, and environmental scanning.

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<sup>24</sup> See *Appendix B* for a list of observational conclusions.

<sup>25</sup> See *Appendix A* for a mini-flowchart of the simulation.

<sup>26</sup> See *Appendix A* for the text pages of the language & culture simulation.

Curriculum analysis was the initial stage in which I examined current syllabi and introductory anthropology texts for their ability to convey information about the topics of language & culture. My review and analysis also involved interviewing faculty, staff, and some students to determine what they considered was important about language, and what they saw as potential examples to integrate into the curriculum. According to Ihde (1986), phenomenology enhances the researcher's analysis of any given topic. This perspective requires the ability to see a situation from multiple understandings, both emic (insider) and etic (outsider) points of view. As a curriculum developer, I was required to look at the curriculum from the view of students and faculty in order to develop an effective learning tool which could be used by many different people within the teaching / learning process. Participant observation methods allowed me to see, firsthand, how students confronted technology as a delivery system for learning, and for me to adapt my content and format to reflect students' interests and abilities.

In essence, the research and design process required needs assessment of the current state of the curriculum. As it was at the time, instructors were unable to spend the necessary classroom time to fully cover language and culture issues. There was also concern that not enough "real life" examples existed to portray important concepts in anthropological linguistics. Beyond assessment of current conditions, I needed to elicit prospective future needs and wants from students and faculty. For this purpose, I was able to make use of ethnographic futures research [EFR] techniques to elicit responses from my research audience about the simulation project and their perceptions of change within their department and institution.

Several definitions are needed to fully understand the research process. They are intertwined, yet separate components of the research process. Each term builds on the previous, culminating in EFR. I turn to the pioneer of EFR, Dr. Robert Textor, to explain these terms (1981:7-10):

- 1) *Futures Research* is the process of describing alternative futures that are possible or probable for a particular population [in this case the Culture Science Department at MCC], to determine the state of knowledge (or uncertainty) about this or that possible future, to identify implications and possible consequences of this or that possible future, to provide early warning signs of undesirable possible futures, and to understand underlying change processes.
- 2) *Cultural Futures Research (CFR)* sees a cultural system as being in interaction with a variety of non-cultural [change] phenomena, processes or systems. Examples of the latter include: natural change, political change, and economic change.
- 3) *Ethnographic Futures Research (EFR)* is the process by which a researcher conducting CFR elicits from members of a social group their images and preferences (cognitions and values) with respect to possible or probable future cultures for their social group. It does not study “the” future, but elicits, describes, analyzes, and interprets people’s “present” images of possible or probable future cultures, and their preferences among those hypothetical cultures.

The difficulty comes in conducting EFR, especially in an educational institution. While futures studies has existed in business and industry for decades, and has recently been defined as “strategic planning,” it has not been widely applied to understanding cultures outside of the business sector, most especially educational institutions. Returning once again to a key concept of ethnographic futures research, the researcher acts as a facilitator to bringing out a community’s own ideas about the future surrounding an issue or their own culture (Textor 1981a; Riner 1991). Through the use of

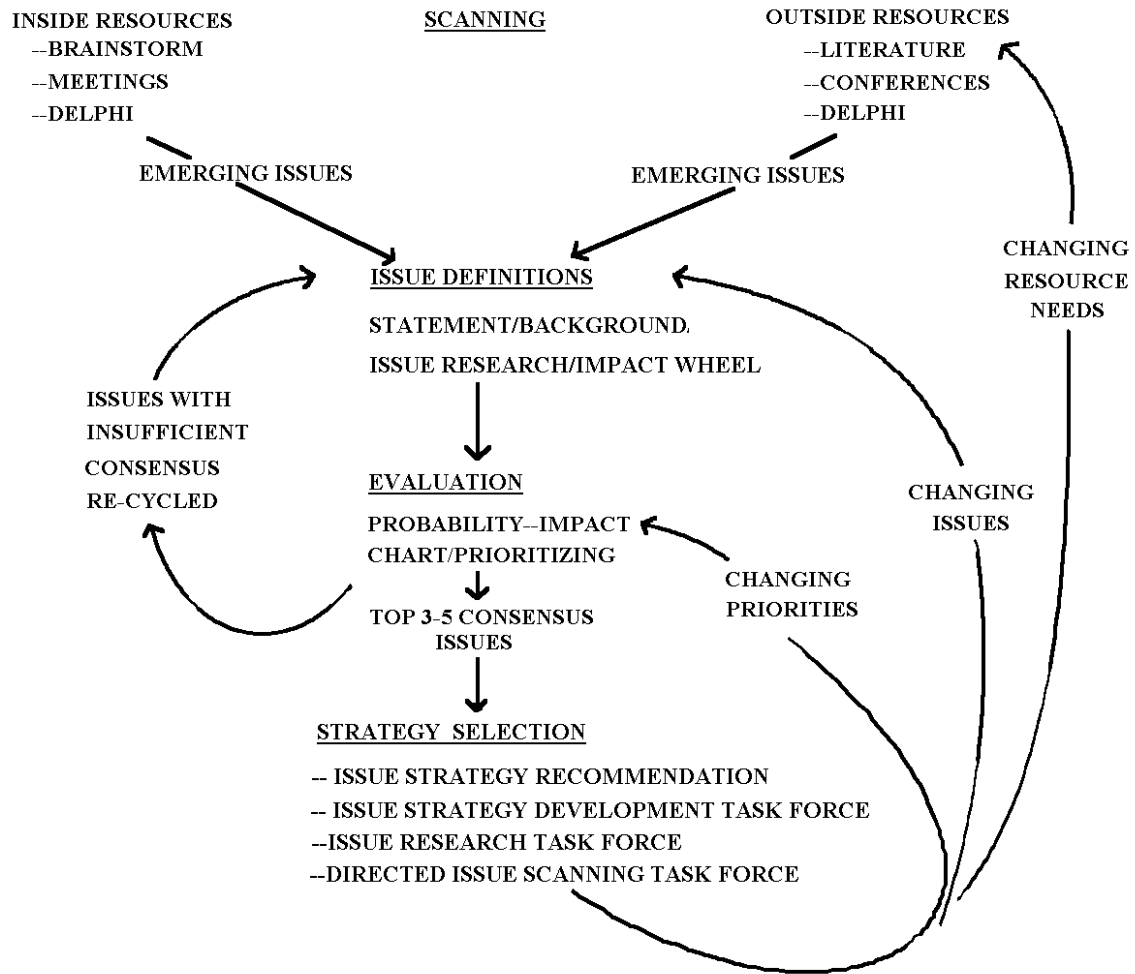
environmental scanning<sup>27</sup> methods, the researcher is able to find the broader picture surrounding development which may include economic issues, technological innovations, social change, and legislative [in this case administrative] developments (Renfro and Morrison 1983:6-8).

My questions of MCC personnel centered around discussions of several scenarios of curriculum and college change as they would affect MCC in the coming years. The responses to these questions then were used to create three possible outcomes of culture change at MCC: the most hoped, most feared, and the most likely. Attitudes of faculty, staff, and students varied considerably Overall, the consensus of opinion was that MCC would need to incorporate more cutting-edge, distance-learning strategies in classes, including computerization of courses and more remote-learning opportunities for students.

I was able to adapt the survey results to fit the context of my research situation by combining people's interests with current simulation development to determine the likelihood of the simulation's acceptance and viability within the Maricopa Community College District. The following illustration depicts the organization of the environmental scanning process:

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<sup>27</sup> *Environmental Scanning* is a survey technique used by a researcher to discover people's interests that surround an issue. It includes a search of relevant literature, people's own thoughts, and an understanding on the part of the researcher of the interaction of parts within a system.



Adapted from Renfro and Morrison (1983:18)

The above figure is a typical example of the environmental scanning process and is applicable to organizations, communities, and curriculum development because it takes into account the decision making process that determines strategy selection to confront a problematic issue. At MCC, this issue was introductory curriculum revision and enhancement. By the model, inside and outside resources help define the issues to be debated by the audience. These issues are then evaluated within the larger context of changing priorities, issues, and resource needs to produce a series of strategy recommendations.

MCC and the Maricopa District's mission supports the environmental scanning method because of a concentration on meeting the needs of the local community<sup>28</sup>. The Phoenix metro area is one of the fastest growing urban areas in the country and an influx of new high-tech industries such as those provided by Motorola and Intel mean that life long learning is becoming an important attribute in business and industry. Because community demographics are shifting and the local economy is growing quickly, continual needs assessment is required. The community college system must maintain an awareness of changes in business and industry, the economy, and local ethnic populations since any changes on a local level will influence *who* attend a community college, *where* they will attend, and *why* they will attend one particular school over another.

Returning once again to Renfro and Morrison's model of the organization of the environmental scanning function, it is evident that the scanning process takes into account the views of inside and outside resources. Inside resources can be considered to be the faculty, staff, and students of the district (or college). Inside is where the meetings and brainstorming sessions took place. The outside resources (literature and conferences) were the literary searches I did of the language field and my everyday observations of students as a researcher.

The next step in the scanning process takes those ideas and observations and produces a definition of the problem (curriculum relevancy). After the problem has been defined and a series of recommendations made, feedback loops in which changing priorities, issues, and resource allocations develop. It is the feedback loops which keep the system alive and allow it to evolve. By listening for internal and external calls for curriculum change, community college administrators, faculty, and staff are able to defeat

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<sup>28</sup> See *Appendix B* for a copy of the MCC mission statement.

obsolescence and move forward into the 21st century. The community college that ignores “community” needs will not be around long. Bond elections and industry supply much of the money needed to keep a school running. If a community college does not support community needs, it will die because businesses and people will go someplace else where they “can” receive the training they want and need.

## **CHAPTER 4**

### **Challenging Medusa: A History of Anthropology & Education**

Just what is this relationship between anthropology and education? Historically, anthropology has played an important role in the development of our present educational system (Carrasco 1994; Eddy 1987; Spindler 1987a; Wolcott 1987). Through its holistic approach towards studying human culture, anthropology has noted the interrelatedness of parts that compose the broader framework of societies, including formal institutions. Eddy (1987:6) breaks the development of our educational system into two historical periods: the formative [1925-1954] and the institutionalization / specialization [1955-present].

In the formative period, educational anthropology was established as the discipline developed theory and research methodologies for studying people in a rapidly changing world. Interdisciplinary relationships were formed and research took on an applied nature. While psychologists and behaviorists focused on generalizations about human development, anthropological research supported the existence of cross-cultural variations. As early as 1934, anthropologists became directly involved in educational issues. One such example was when Malinowski traveled to South Africa to address an international conference on progressive education attended by representatives of many different disciplines, all committed to the need of Western educators to involve indigenous systems of education in educational policy formation (Eddy 1987:12). Overlooked by the general population, Malinowski's work (1922), along with that of Margaret Mead (1961), documented and exposed indigenous educational systems to the outside world for the first time.



The age of institutionalization and specialization began after the Stanford conference of 1954, in which the applied nature of anthropological research in education was stressed and partnerships between educators, administrators, and anthropologists were forged. This period has seen the National Study of American Indian Education [NSAIE]<sup>29</sup>, the establishment of the Council on the Anthropology of Education in 1970<sup>30</sup>, and an increase in meeting the needs of a diverse student population through multiculturalism which began in the 1980s.

Educational anthropology has a number of important qualities in a pluralistic society such as our own. According to Eddy (1987:20):

- it is concerned with cross-cultural studies of human populations
- it exposes the multicultural nature of American society
- it studies learning in different cultural environments
- it reveals implications of teaching and learning for educational policy
- it recognizes that education is situated within a changing world

The first quality of educational anthropology, a concern for cross-cultural studies, illustrates the emphasis anthropology places on cultural relativity and ethnology. Why are cross-cultural studies so important? They provide a context for understanding the similarities and differences between peoples. Ethnology allows us to understand why people behave the way they do within their environment.

Second, American society, although based on a common set of core values, is largely multicultural. This view of American society as multicultural means that

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<sup>29</sup> For a summary of the results of this research assessment and recommendation by researchers, please see the 1972 book *To Live on This Earth: American Indian Education* by Estelle Fuchs and Robert J. Havighurst and the 1979 article *American Indian Education: A Rite that Fails* by Reed D. Riner in *Anthropology and Education Quarterly*. These analyses are both excellent accounts of NSAIE research and the role of the applied anthropologist in educational assessment.

American culture has many subcultures (groups) who may hold greater value for some values over others, or relate to the learning process differently. The classroom is a mirror of the outside world, and respecting cultural differences is not only part of the teacher's role, but a necessity for students in the classroom, because relating to people from different cultural and ethnic backgrounds is a fact of life for most people.

Third, because educational anthropology studies learning in different cultural environments, it brings out how different people learn in different societies and cultures. These findings can be used by educators to incorporate methods within their classes that recognize and respect cultural differences in learning. George and Louise Spindler are two pioneers in the anthropological study of education, especially involving research of minority education. Their work has spawned a generation of research in the anthropology of education, much of which began in the 1970s and 1980s<sup>31</sup>.

Fourth, in revealing the implications of teaching and learning for educational policy, educational anthropologists have a strength over non-anthropologist administrators. By analyzing curriculum from a multitude of perspectives (student, staff, faculty, or administrator), educational anthropologists may be able to see the implications of curriculum policy for all parties involved, instead of channeling their interests into one particular perspective.

Last, by recognizing that education is situated within a changing world, educational anthropologists may be more open to understanding curriculum policy and change as it occurs diachronically (across time). This ability alludes to the futurist nature

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<sup>30</sup> The CAE is a fully-recognized subsection within the American Anthropological Association. Its membership has been steadily growing ever year, and it publishes a quarterly journal on the applications of anthropology to education.

of anthropologists, the ability to see further “down the road” than the immediate future. The anthropologist is also able to see the many components, be they economic, political, pedagogical, or technological, which impact policy formation and decision making within organizations. Moreover, by realizing education is situated within a changing world, educational anthropologists are able to see learning as a lifelong process (Eddy 1987:20).

Much of public school education is centered around socialization and the learning of norms (McLaren and Giarelli 1995; McLaren and Giroux 1995) . In many ways, public education is organized toward an endpoint, graduation, at which time students become “adults” and are deemed ready by teachers and administrators to partake of the working world. These recent graduates are considered complete individuals who can use life’s experiences for further personal development.

Colleges and universities are much the same as secondary educational institutions when it comes to educating students. They create a fuller, richer, more complete individual who can appreciate the broader context of things (i.e. a more holistic Liberal Arts-oriented person) and who know “how to learn” using critical thinking skills. They are not, however, institutions which by-and-large adapt to changes in business and industry. Instead, specialization is the norm of traditional higher education in the United States. In specialization, I am not discounting the role of universities and colleges for select students. For certain managerial positions in society, a special expertise may be much more important than the ability to play a variety of different roles in an organization, which may be dictated by those at a higher level in the administrative hierarchy. While specialized education has its place in these types of work situations,

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<sup>31</sup> An excellent collection of works in educational anthropology by a multitude of authors is present in George and Louise Spindler’s 1987 work, *Interpretive Ethnography of Education at Home and Abroad*.

many people do not need this kind of specialized training. Instead, they may need skills in a variety of different areas. Because most people will change careers several times in his/her lifetime, the ability to be multiply-skilled (versatile) in both knowledge and trade become a necessity.

Educational anthropology appears to have enormous potential for application at the community college level. First, because community colleges see learning as a lifelong process which will require constant retraining of workers, their course offerings and programs have been adapted to reflect this attitude. One can attend full time, part time, or take an occasional class to increase job skills, or attend a course “just for fun.” At four-year institutions, in contradistinction to community colleges, occasional classes are either not an option or are rather difficult to obtain. Courses are designed to fit programs and are generally not open to the outside public unless a complex registration process is followed.

Second, an important consideration when comparing community colleges to universities and colleges is their primary emphasis as opposed to other institutions of higher education in the United States. Since community colleges are “community centered,” they offer many specialized courses that universities cannot offer. Community colleges also derive their course offerings from community, business, and industry interest. Although community colleges offer coursework to satisfy the needs of local businesses, it does not, however, mean that community colleges are “selling out” to businesses by offering courses that people outside a particular trade either cannot attend or would not be interested in taking. In serving community needs, it is as much the local

population as business leaders who are interested in educational institutions that can teach the job-skills necessary for gainful employment.

Along with the ability to offer corporate training, community colleges, and especially MCC, provide many courses in the Liberal Arts. These courses, although useful for transfer to four-year institutions, are also taken by students who have no intention of furthering their education beyond the community college level. It is for this group of people that relevance is of particular importance.

Third, community college courses are generally smaller than those at the university as well. A typical community college class will have 20-30 students, and in anthropology, the number in an introductory course was about twenty-two students. In contrast to MCC, the typical introductory course at NAU and other major universities generally has anywhere from 80-120 students. Smaller class sizes has both advantages and disadvantages to which the anthropological study of education can apply. First, because classes are smaller, the instructor is allowed more flexibility in classroom teaching. Teachers need not be limited to multiple-choice exams or primarily lecture-based instruction. Instead, the instructor can choose from a pool of other options that involve small group discussions or experiential learning via field trips or outside projects. The instructor also has more opportunity to interact directly with students in the classroom. Combining multiple senses (or intelligences) in learning increases comprehension, motivation, and student interest (Gardner 1989, 1990). By freeing an instructor to participate in a more interactive way with her/his student's, both student and professor are engaged in the learning process. If an instructor is unable to cover a particular topic as fully in the classroom as anticipated, there should be a way to cover

the material outside of the classroom. A traditional method for doing this has been through class readings. In some instances, it may be better to involve a multimedia perspective, one that combines visual and auditory senses with hands-on techniques. A teaching method that can do this, will help to satisfy a multiplicity of student learning styles.

Second, smaller class sizes mean that the proportion of ethnic diversity in the classroom can possibly be higher than in a university, particularly in community colleges located in certain urban areas where the majority of people may be of one ethnicity or another. Many ethnic minorities cannot afford the cost of higher education at universities, making community colleges the only affordable choice<sup>32</sup>. The diversity in the classroom means that the instructor will have to work a little harder at teaching than a university professor, especially if s/he is from a different ethnic background than the majority of students in the class. This challenge does not need to be looked at negatively, however. A high degree of classroom diversity can enhance the learning experience of both students and the instructor. S/he cannot assume that all, or most of the, students are from middle class families who have had similar upbringings. Instead, students will be of many different ages with different degrees of life experiences. Many will not have come directly from high school, and therefore they may or may not need help with remedial language, math, and writing skills. The application of anthropological analysis to education brings out these differences among students, making them more apparent to the teacher and/or administrator. A student may be misclassified as a “slow learner” or “disabled” when in fact the student does not understand the teaching method the instructor is using. Understanding how other people see and interpret their world is one

of the gifts of the anthropologist to education. It makes one more sensitive to others' views on issues and why they see things the way they do. The educational anthropologist has the ability to have their feet in two worlds at the same time: the internal administrative world of the community college (academia), and the outside world (community), where the essence of their work is an awareness and understanding of cultural diversity.

The movement of the educational anthropologist into the domain of technology studies is a logical progression toward understanding how diversity affects the use of technology in the classroom. Complementing this point of view, technology studies also look at the reverse, or how technologies impact the way students learn.

That technology is a key element in human affairs, and especially in sociocultural change, has long been central to anthropological thinking (Bernard and Pelto 1987b:359). Despite this concern over technology in culture, anthropologists continue to avoid technology in their own work. According to Bernard and Pelto there are essentially three reasons for the neglect of technology in social science research: the strong "mentalistic bias" of research, unfamiliarity of social scientists with complex equipment, and ambivalence concerning new technology and modernization in general (1987a:4-5). The educational anthropologist must adapt to an emerging "global community" where communication bridges the gap between geographic distances, and technology plays an important part in our everyday lives.

Where does the idea of "challenging Medusa" fit into the supportive argument for educational anthropology? Referring to Greek mythology, Medusa was a mythical snake-haired beast who could turn its victims into stone with the slightest glance.

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<sup>32</sup> The cost per credit hour at community colleges is generally much less than at a college or university.

Educational anthropologists and curriculum developers are confronted with a challenge, be it cultural relevancy of curriculum, or accommodation for community change. By putting forth and utilizing our best skills, we can gradually bring about educational reform. Just as those who attacked Medusa with little planning fell prey to its stare, by carefully planning our strategies, we can at least tame the beast, if not eliminate it entirely. To an anthropologist, the skills of eliciting people's thoughts, describing, analyzing, and interpreting our world are primary functions of the work performed. The application of these methods to curriculum development are what puts the anthropologist a cut above the average curriculum developer.



## CHAPTER 5

### Lost in the Labyrinth: What Am I Doing Here?

The research experience at MCC was not the easy process it appeared at first. I went into the internship believing that my computer skills and knowledge of language and culture would be put to the test. Nothing could have been further from the truth. As I progressed through my everyday interactions, I discovered that the experience could be divided into three distinct levels of interaction: individual, instructor / departmental, and district.

The individual level was quite different than I expected it to be. I knew entering the internship that I would probably have an unstructured environment with a considerable degree of freedom in my everyday work. I was told that a series of progress deadlines would pop up from week to week, but that I would have use of all the resources I needed to complete the task.

Confusion began as I struggled to find my place within a larger bureaucratic hierarchy of which I was one step above the bottom. My status as a curriculum developer and educational anthropologist was a liminal one: I was faculty and I was staff<sup>33</sup>. In this dual role, I regularly shuffled my responsibilities from a teaching perspective, to one of a computer support specialist. Each status played an important role in defining how I interacted with my colleagues, regular staff, and students. I was no longer a student by definitional terms in this internship, but I had the unique perspective of still being a graduate student at NAU, which I could use in helping me perceive learning situations

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<sup>33</sup> See Victor Turner's 1974 book *Dramas, fields, and metaphors: symbolic action in human society* for a definition of liminality and its relationship to the phenomenological study of cultural events and processes.

from the perspective of a student. In essence, I was in three roles at the same time, since I also was learning something new every day.

As I explored my freedom as a curriculum developer, a number of other concerns had to be considered. First, I was to create a product for use by other instructors. Second, this teaching module would have to be accepted and used by students as a learning tool. Third and last, I had to try and keep my own beliefs about and interests in linguistics from overshadowing other content areas. I knew that I was personally interested in language semantics (such as the Sapir-Whorf hypothesis<sup>34</sup>) and language evolution. But, if the module was to truly represent content areas equally, I would have to make sure I put as much time into other themes as I did into my favorites in order to allow as much creativity to seep into the final design as possible.

As my internship progressed, I found myself confronted with another difficulty. A person who was supposed to aid me in the development process was nowhere to be found and I was left with a dilemma: What direction should the research take? I began to struggle with the question, "What am I doing here?" Doubts began to enter my mind: Can I really do this? Does anybody take me seriously? What's going to happen when I leave? Will this really ever be used by anybody? In my state of confusion, I was being assimilated into the organization without actually realizing that this was taking place. As I battled these questions on a daily basis, I began to understand that this was a normal process when someone is new to any organization or job situation. I was truly "lost in the labyrinth," not understanding what was going on around me or why I was so lost. The

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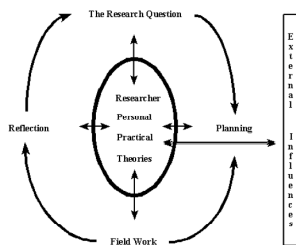
<sup>34</sup> The *Sapir-Whorf Hypothesis* is a long-standing debate in language semantics. The argument centers around whether language influences perception, or its reverse, whether language is the result of perception. Because of the controversial nature of this issue in cultural studies, I presented an argument for both sides of the debate, allowing students to formulate their own opinions on the issue.

following series of understandings, mentioned by the Educational Anthropologist Jeffrey Cornett, entered my mind as I tried to clarify what was happening around me (1995:123):

- Research is a continual struggle to clarify my understanding of myself as I struggle to clarify my understanding of others.
- Field research is practical [real/normal] work in that it takes in a fluid context.
- Deliberations about my choices for actions are heavily influenced by my personal biography and related personal theories.
- Ethical issues and problems and my thoughtfulness about them influences both my own work and the possibility of future work at the site.
- Systematic reflection on the research can improve my ability to conduct thoughtful, ethical research.

As I reflected on Cornett's statements, I began to realize what was taking place. Cornett has said, "Doubt and uncertainty are the fuel that drives the research" (1995:123). This statement was certainly true for me. While in research situations it helps to have a clear idea of your methodology, the reality is that initial paradigms and assumptions are often shattered when the actual research begins. My confusion caused me to explore all possible options in my research. I allowed myself to consider what each audience would like to see in the final simulation, thereby creating a "self justified" solution for any digression from my intended thematic plan. How was I to go wrong if I incorporated each person's interests into the final product? Doing so would certainly create the "egalitarian" content structure of the simulation I was attempting to achieve. The schematic on the following page illustrates the liminal status of myself in the research process.

At the center is myself and my preconceived ideas of how the organization worked, including how I would fit into its structure. As the center of the curriculum development process, I was influenced by a number of other factors: the research question itself (how to create an effective way to teach linguistics); field work (my curriculum development); planning (conducted through meetings, ideas, and environmental scanning); and, reflection (continual reassessment of where I was heading with my research and why I was doing so). At the same time that I was confronting these issues, a number of external influences were impacting my personal theories: the opinions of other faculty and staff; the MCLI personnel's recommendations; and, my own assimilation into the organization (the Department of Cultural Science at MCC).



The Influence of Researcher Personal Theorizing on the Phases of Research  
 (Adapted from Cornett 1995:126)

As I struggled to find my way on an individual basis, I was at the same time interacting at a departmental level. Not only must the curriculum contain content that interests the instructors and students, but it would have to satisfy certain departmental requirements. These requirements meant that there must be some way to measure knowledge gained in the learning experience. Learning about cultural variation is important, but what good would that be if there were no way to measure learning?

I turned to Dr. Effland's current course methods to answer this question. Some instructors were still using multiple-choice type exams, especially the part timers. I gained the impression that this testing strategy was because of time constraints. Most part-time faculty probably they had other jobs besides teaching to worry about. Dr. Effland's methods consisted of journals the students would create during a course. Each student would complete a series of exercises with Dr. Effland's simulations and then answer questions about what they had seen or done. Since my simulation was only a section of a course in introductory applied anthropology, I decided to opt for a similar format which made use of reflection questions interspersed throughout the scenarios of the simulation. While this method may not be the optimum way to test what students learn, it does allow students to think creatively and critically about the material instead of regurgitating facts back to the instructor.

The last level in the hierarchy affecting my internship was at the district level. The organization of the district allows individual community colleges to determine their own directions. In my situation, I was developing a curriculum module for MCC, and potentially for the entire district. I had freedom over curriculum content, but MCCD ultimately controlled the final technological device for me. I was to write the content and

develop a plan [format] for presenting it. The MCLI was to take my ideas and recommendations to the next level, doing the actual programming of the simulation. In other words, they held ultimate control over the synthesis of the product and its distribution. Throughout my internship, I attempted to develop as much of the outline as I could in order to avoid the possibility of the MCLI taking my curriculum in a different direction than I intended. Good documentation was the key to avoiding this possibility and I made sure to take advantage of it at every opportunity. Even though I was unable to complete the entire project during the course of the internship, I was able to leave with the satisfaction that I would be an active part of the development process, even in my absence from MCC.

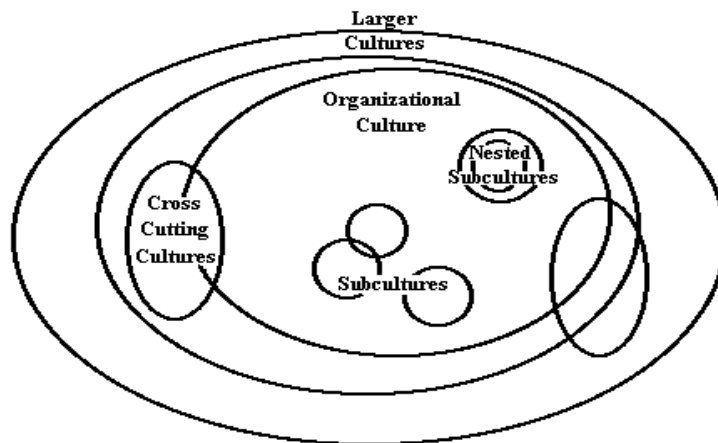
The anthropological judgment process centers around four themes as mentioned by Roberts and McGinty (1995:112-113):

- Thinking of my presence as a crossroads for choices
- Learning to anticipate outcomes of decisions or actions
- Understanding the influence of my decision making on objectivity<sup>35</sup>
- Developing the “research self.”

Each of these themes was an important part of my role as an applied anthropologist at MCC. The first theme illustrates my role as a “culture broker” or facilitator. I had idea input from several different groups which had to be molded into a viable product. The second theme shows my ability to see the “broader picture” of the curriculum development process. Any decisions I made about content would affect the final outcome of everything I did. The third motif once again stresses my need to be as

objective as possible in the development process, or the interests of other parties may not be fully represented in the final design.

The last thematic pattern, developing the researcher self, I believe was the purpose of the internship process and applied anthropology in general. It is the professionalization process, the “translation of knowledge into action” according to Spindler (1987a:310). The state of the applied anthropologist can be understood better than within the context of each particular research situation. Some applied anthropologists may call this “action anthropology,” while in another sense it is the empowerment of those we serve as anthropologists, be it organizations or cultural groups. The anthropological perspective takes into account all the various subcultures and how they impact one another within a larger, more dynamic context. The following diagram is an example of the context which the applied anthropologist must consider when doing work within an organizational culture (Jordan 1994:6):



**Anthropological Perspective**  
(Adapted from Jordan, 1994:6)

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<sup>35</sup> This idea implies that decisions on the part of the researcher will influence the final outcome of events. By understanding one’s own theoretical slant on an issue, a researcher can reduce his/her own biases from masking other important issues in the research process.

An organization (or culture) is never the easy-to-define whole that it may appear to be to an outsider. Any organization is actually composed of a number of different subcultures that impact the decisions of the organization. Sometimes these subcultures are separate divisions (as within a company); other times they are departments (as in the case of an educational institution). Within the organizational culture of MCC, an anthropological perspective reveals the subcultures to be individual departments (e.g. creative arts, natural science, or the humanities). Sometimes these cultures overlap, sharing ideas, affecting one another's decisions, or articulating courses for credit in either department. The Social and Cultural Science Departments at MCC can be considered overlapping subcultures because they share the same building and office staff, their department chairs have adjacent offices, and it is normal to see collegial interaction between faculty.

Referring again to the diagram, "nested subcultures" represent "groups within groups." These subcultures can be inter-departmental committees or other types of collegial relations within any department.

The last type of subcultures in the diagram, cross-cutting cultures, denote groups which have interaction with the world outside the organization. At MCC, these cross-cutting cultures are groups that have contact with business, industry, other colleges, or the district. "Motorola University" is one example of a cross-cutting culture because training faculty are associated with MCC, yet they offer courses specifically tailored for Motorola employees.

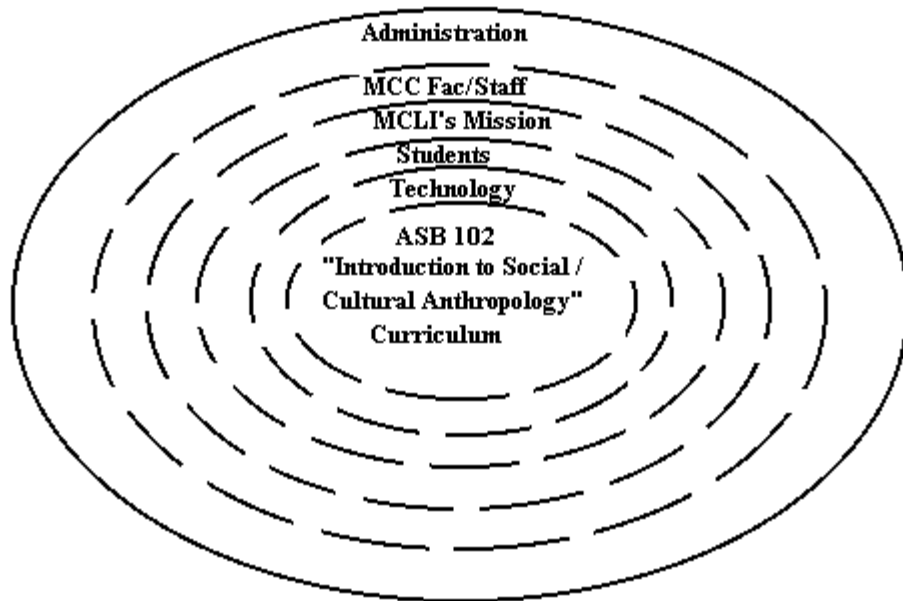
Finally, the larger cultures which surround the organizational culture are the district and the local community. In a "trickle down" effect, society's values influence



district decisions (e.g. in bond elections). The decisions or influence of the district will then impact how individual community colleges decide to structure themselves; what courses they decide to offer, where, and when they occur.

Breaking down Jordan's model and applying it more specifically to the everyday occurrences of my internship, a series of labels can replace the overlapping layers of the model on a micro-level basis:

**Microlevel  
Intersystemic Model of Organizational Culture**



This model depicts the inter- and intra-organizational influences on the curriculum development process and myself. The curriculum is at the heart of the model because it is the product which must be delivered. Each of the surrounding outer layers are levels which place constraints on and offer opportunities in the development process. They will determine what the deliverables will be. The reason for the dashed lines forming each of the concentric layers of the model is representative of the fact that the

system is open rather than closed. Knowledge can pass from any one layer to another in either direction as long as the curriculum continues to remain the core issue.

It is within these previous two models that I place the anthropological foundations of education and the development of the researcher self which can be shown by the following diagram. It is lineal for simplicity's sake since it denotes the changes which occurred throughout the duration of my internship. The researcher development diagram explains the role of the researcher as s/he is enculturated into an organization and begins to conduct the necessary research. In order to fully understand the research context, however, the educational anthropologist must not only look at the forces impacting one's personal development, but examine the relationship between the outside world and the curriculum development process.

[INSERT RESEARCHER DEVELOPMENT DIAGRAM HERE]

## **CHAPTER 6**

### **Finding the Missing Link: Theoretical Foundations in Education**

An exploration of theory as it relates to anthropological practice and educational pedagogy provided the “missing link” to understanding the researcher self within the broader context of the curriculum development process. The organization was there, influencing me as a researcher, but what was causing the organization to behave the way it was? Also, what underlying assumptions existed in educational foundations and curriculum theory? And why were technology and educational futures so important?

In order to find answers to these questions, the educational anthropologist must look to theory. In the previous chapter a background on the relationship between anthropology and education was constructed. The various organizational subcultures were identified and levels of curriculum development explained. A full understanding of the internship experience could not be possible, however, without considering the theoretical foundations of “why” things occur the way they do in curriculum development and organizational culture.

Beginning at the organizational level, a number of theoretical implications exist. It can be said that the organizational hierarchy of the community college system is just that, a “system.” According to the basic tenets of general systems theory [GST], there is an interrelationship between the parts which working together provide important functions for one another, maintaining the overall sustainability of the system (Von Bertalanffy 1968). An outgrowth of Leslie White’s concept of the energy in systems (1949), systems theory not only showed that an increase in energy input into one level of the system would impact that of another, but introduced the concept of “feedback” as an

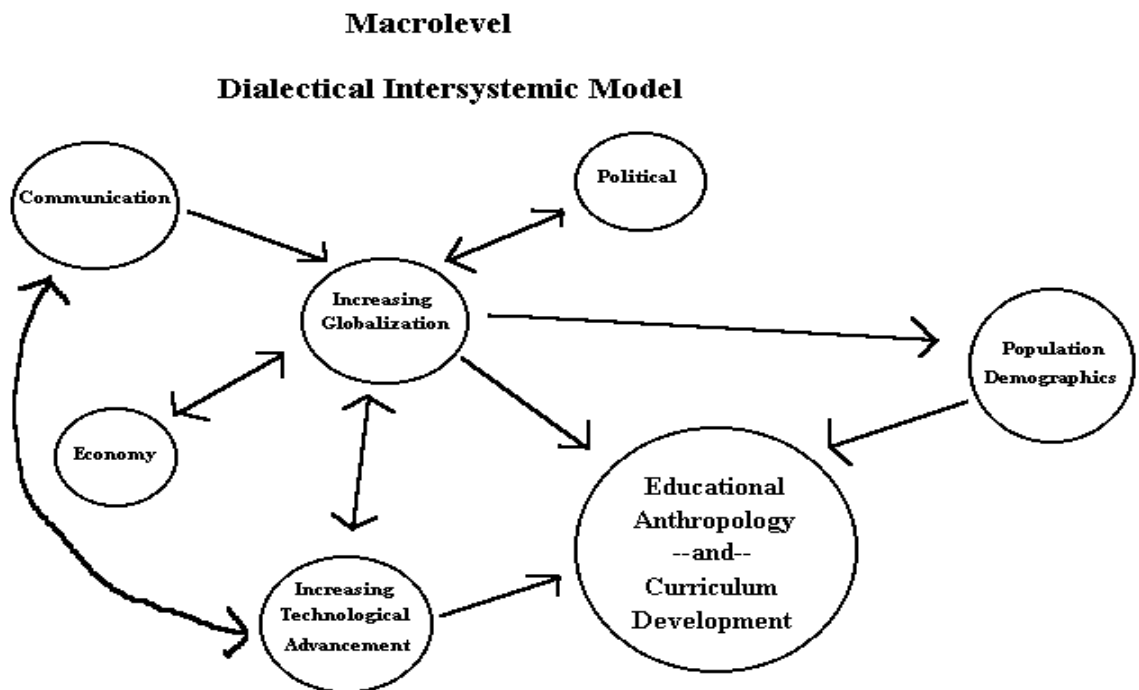
important contributing factor to system development, growth, and change. However, in this model of culture, systems theory neglected the notion of “conflict” and the role it plays as a driving force for the generation of new subsystems. In cybernetics and general systems research, Maruyama introduced what he called “the second cybernetics,” which considered the idea of deviation-amplifying mutual causal processes as driving forces for a system (1963). This method also included “conflict” by showing how positive and negative feedback forces drive the evolution of a system.

According to GST and cybernetics, there is interaction of the components within the hierarchy of the organizational culture as each entity struggles to maintain its solidarity and function within the overall structure (district). Each component, whether another college or district development committee (such as the MCLI) influences the decisions of other entities. Together through their knowledge sharing, they form a “community” [system]. GST and cybernetics lack one important characteristic however: change as a necessary component for the survival of the overall system. Change is the driving force behind each component’s fight for survival.

Julian Steward introduced the concept of “change as a necessary component of a system” in his *Theory of Culture Change* (1955). Based heavily in earlier biological approaches to cultural ecology, Steward added the concept of an open system and an environmental context to White’s 1949 evolutionary theory. While cultural ecology takes into account sociocultural-environmental adaptations and interdependence among parts, the cultural core is only mildly affected by historical factors and social relationships (Anderson 1973:187). The model also ignores conflict between systems within the environment, instead seeing stabilization of the core within a “dynamic equilibrium” as

the norm (Anderson 1973:187). Lastly, Steward’s position considers technology as a major core component when it is actually only a part of the total interaction process. Other forces, namely social, political, or religious institutions may be just as, or more, influential in determining how a system operates as technology. In order to confront these drawbacks another approach is needed towards culture change. This approach comes from James Anderson.

From Julian Steward’s position, Anderson (1973) took the theorizing one step further by generating an “intersystemic approach” towards culture change. This intersystemic model considers conflict, feedback, and change within a broader environmental context. In applying this approach to educational anthropology, the macro level processes become readily apparent, and provide the “missing link” in our theory:



The dialectical intersystemic model has several basic assumptions which can be related directly to education. First, all societies exist in a changing world or environment which includes other societies, the physical world, and its own members. This first proposition illustrates the natural occurrence of change and the importance of global interactions for individual communities. Second, Anderson says that all societies exist within environmental boundaries. Relating this to education, the environmental boundaries are fourfold: local, state, national, and international. Third, when a perimeter is exceeded, change in the organization must take place or the system will die out. This concept refers specifically to the contact between components, illustrated by the sphere of globalization in the figure.

Communication, economic and political affairs, and increased technology have far-reaching impacts beyond their points of origination. For example, a discovery in Japan can lead to diffusion of an idea or new technology to Europe or North America. If selective measures are taken, a culture may be surpassed by another and eventually become subsumed by it. Fourth, a society must change to survive. Increased globalization and shifting demographics mandate change. Populations change over time, and with them, so must curricula. Last, a society (in this case the organization) is in a state of dynamic equilibrium, not a restorative one. This concept once again reinforces the evolution of the system of knowledge. Outside influences are incorporated into the system, rather than being a series of outside forces which may impact the system briefly, but not have a lasting effect. The dialectical intersystemic approach allows for multiple

causation of culture change and diachronic instead of synchronic views of time<sup>36</sup> with conflict as a normal part of the system.

Analogous to macro levels, at the micro level of analysis, the dialectical intersystemic approach also can be applied to the organizational culture of the internship (refer once again to the micro level figure on page 51). At the center of the diagram is the actual curriculum which has to be developed. The surrounding concentric circles depict the forces acting on the development process. There is interaction and conflict between the various layers at all levels of the hierarchy as everyone's goals and interests are slightly different. Jordan (1994:6) breaks organizational culture down into a series of interacting subcultures which I call the administrators, faculty, MCLI personnel, and students in my diagram. According to Jordan (1994:6), the conflict centers around the issue of power and who controls it. The administration dictates to the faculty that some changes must be made in the curriculum. The faculty are able to see the difficulties in their classrooms, i.e. which specific areas are troublesome, and they hold their own personal ideas about how to change teaching methods. The MCLI then works with faculty to determine what is feasible and how they can contribute to the change process. Also, the students hold their own set of attitudes about the courses and react positively or negatively to whatever changes are instituted. Finally, technology and resource availability can place constraints on what types of curriculum can be developed. These availability factors may or may not conflict with what other participants in the curriculum development process desire for an end product.

The anthropologist as curriculum developer must act as a cultural broker between these various actors in the organizational culture, facilitating constructive dialogue so that

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<sup>36</sup> *Diachronic*, in this instance, means continuous across time. *Synchronic* denotes one moment in time.



some type of solution can be proposed. The role is one of “action anthropology.” According to Van Willigen (1993:29), action anthropology makes use of community self-determination and interactive planning. This concept means that the researcher works in close cooperation with interested parties to bring about their ideas and represent their positions in the curriculum development process. At the researcher level, change is largely non-directed, meaning the researcher is a communicator of the needs and wants of the organization or group, and not the instigator of change. Instead, the course of change is dictated by faculty members and the administration, since a stance is taken to change the curriculum to meet shifting needs in a dynamic world system.

Moving from micro to the macro level, interactions between all levels of society are shown as they influence global, societal, and institutional attitudes towards curriculum development. Interaction and/or conflict can arise between any constituent parts of the model and may be a driving force for curriculum change: politics influence what direction curriculum will take and what may be taught; economics determine where monies may be allocated; population diversity and shifting demographics dictate how the curriculum should be taught; and technology increases communication and globalization, enhancing teaching methods and subject matter for discussion in the classroom.

In educational foundations and curriculum theory, the earliest theorists saw education as a “process,” one which should reflect culture change and promote free-thinking, creative individuals (Dewey 1938). Dewey battled against the past-orientation of traditional education (transmission), instead trying to refocus education on the here-and-now. The past should not be completely forgotten however. The “way out of scholastic

systems that make the past an end in itself is to make acquaintance with the past a means of understanding the present” (Toffler 1970:401). This type of thinking has recently resurfaced in the field of education as “learning semantics” which strives to relate comprehension styles to learning. Students are considered separate individuals with their own talents and abilities rather than as a collective homogenous whole. Toffler declared in 1970, “One basic complaint of the student is that he is not treated as an individual, that he is served up as an undifferentiated gruel, rather than as a personalized product” (1970:272). It only has been in the last few decades that instructors have experimented with individualization of the curriculum. These types of experiments have led to the discovery of multiple intelligences, a new way of understanding how people learn by categorization of their surroundings (Bateson 1973; Gardner 1989, 1990). The impact of understanding the learner involves multiple disciplines, and with this area, the anthropologist carries an advantage over his/her colleagues.

The anthropologist has been studying culture and its taxonomies for generations. The movement of the anthropologist into studying learning and classroom culture is therefore a necessary and welcome step in research and design studies. Examples of outstanding individuals in the study of classroom culture are now numerous: George and Louise Spindler, Roberto Carrasco, Frederick Erickson, Courtney Cazdan, Henry Trueba, Jon Rehyner, and John Ogbu. Anthropologists can understand cultural similarities and differences in the classroom and apply their knowledge and understanding to the creation of multicultural curricula which is less stereotyped, more relevant to students’ lives, and more adaptable to learning style preferences. They may see many things in classroom

culture which pass unseen by persons from other disciplines. Therefore, anthropologists have the potential to play an important role in education.

A theoretical discussion of anthropological perspectives on curriculum development would not be complete without discussing the impact of technology and educational futures on the development process and the role of the community college in higher education. Returning briefly to the dialectical intersystemic approach in culture change theory, Anderson (1973) states that a system itself must change or it will die out. According to this viewpoint, all institutions of education should monitor outside influences and make changes as necessary in order to fulfill their missions. Some futurists and critical theorists take a pessimistic stance. In his article *Death of the University*, Herbert London speaks of the demise of the university and higher education unless teaching strategies are changed and a global perspective obtained (1990:35-40). The malaise of higher education can be related to economic and political pressures at the macro level, as well as, resistance to change at the micro level of analysis. If our educational system is to survive, it must change. A central issue, however, is “How much is enough?” I like to think that each institution, be it a four-year college or two-year center, should be able to define how much is enough change for their interests. Because of rapid changes in technology and the job market, community colleges are often the first educational institutions of higher learning to be affected by global forces. In the words of Samuel Dunn, “[all] higher education must change from the Camelot industry (ivory tower “prestige mentality”) it is now if it wants to survive with significance in the knowledge society just ahead” (1994:35). This concept applied to community colleges as well as universities and colleges. Although some universities are designated as “teaching

institutions” (such as NAU), many are not, choosing instead to focus much more on research to determine scholarly achievement. Because community colleges stress teaching alone (and only undergraduate education), faculty, staff, and administrators tend to be able to have more freedom to experiment in their classes. Class sizes, as previously mentioned, are by-and-large much smaller for introductory courses at a community college than at a university, and this fact allows easier access to experimentation. This is in sharp contrast to most four-year colleges and universities. From this position, community colleges have much to offer colleges and universities both by their successes and failures. Not only is the student population becoming more multicultural and ethnically diverse, but the younger the individual in our society, the more likely he/she is to accept and be comfortable with new technologies and have a learning style which complements their use (Dunn 1994:41).

Current research in technology and educational futures has stressed the importance of instructor adaptability to new forms of technology in instruction and delivery methods (Huff 1994; Halal and Liebowitz 1994; Truex 1993; Dubinskas 1993). It has also shown that educational technology can enhance the learning experience as long as new technologies are used to enhance already existing curricula and not used as a substitute for active learning or as another way to apply teaching methods that are traditional (lecture based and non-participatory). The teacher has considerable power in the use of the technology and unless it is used creatively, there will be no gain in the learning process. “Education will be transmissive rather than transformative, a closed system rather than an open one” (Biglow 1994a).

Research has produced a series of recommendations for a “wishful thinking” scenario for the classroom of the future (Riner and Neville 1991:63):

1. Learning should be tailored to the individual as much as possible, given the constraints of the particular material.
2. Learning should be interactive and participational. Thus lectures, when necessary, should be delivered to small groups, and participation, questioning, and general reaction by the audience should be encouraged.
3. Cooperative interdisciplinary work is vital: it develops understanding of other points of view, it stimulates professional work in one’s specialty, and it is the best preparation for real-world work later on.
4. Constructive contact--like working jointly on projects--between institutions is very useful for reasons similar to those of #3 above. If the contact is between countries, all the better. There is desperate need for people of different countries (I substitute “cultural/ethnic backgrounds” here) to understand and sympathize with each others’ problems.

While the above points illustrate a “wishful thinking” scenario for the classroom of the future, they are also achievable “if” one works at it. My work in curriculum development at MCC attempted to integrate the “wishful thinking” scenario into the classroom of the present. If successful, the possibilities of learning are limitless. The student is empowered; the instructor is empowered. According to Paulo Freire in *The Pedagogy of the Oppressed* (1973), empowerment is a central issue in overcoming oppression. This statement in a more reduced form can be applied to educational curriculum development. When you give students and instructors the necessary tools, as well as the authority to instigate change, change will occur. Both students and instructors will be empowered to think critically about the curriculum and traditional teaching methodologies and paradigms. Once the foundation is laid for critical thinking, the learning process is taken to a higher level. Students are no longer *marginalized*,

following a *border pedagogy* which places them at the fringes of the learning experience (Giroux 1988a:166). The multimedia approach of my module is one method that aims to actively involve students in the learning process. Although they do not have direct contact with the instructor to learn the material, the instructor has still designed the material for delivery, and in that process made a determination of what s/he feels is important for students to understand. Students can progress through the simulation at their own pace, pausing to reflect on themes as they see fit, or they can work together with other students in small groups to answer questions about the material presented to them.

The work of futurists in educational research is not new. They have been working for decades, often silenced or their research disregarded by administrators and policy makers. Why this occurs can only be attributed to cultural lag and issues of control and power. There is often a fifteen to twenty year gap from the time any new fundamental idea is presented and it is accepted by an audience. This is especially true for ideas that require change in norms and values by those in power. As early as 1974, calls were made for progressive futures-oriented thinking in curriculum, multicultural curricula, and participational learning:

The futurist movement in higher education must learn from the lessons of the educational reform movement. While cognitive learning should continue to have high priority, the problem of integrating learning and living for the future clearly demands new emphasis on other kinds and styles of learning, as well. Specifically, the curriculum must offer experiences in creative and speculative uses of the intellect as well as analytical uses. It must offer practice in dealing with people from diverse backgrounds of various styles of life with differing goals, as well as practice in understanding their problems from a distance...In short, the curriculum must introduce students to a variety of learning as well as a variety of bodies of knowledge (Werdell 1974:290).

This first statement by Werdell illustrates the desire of educators to incorporate critical thinking skills into the teaching / learning process. In my simulation, my critical thinking questions propose a series of “what if?” scenarios. For example, in the section on sociolinguistics, I present the notion of registers (situational dialects of conversation) by showing the difference between verbal communication in an informal home setting, and that used at work through audible speech samples. I then follow up the examples with several questions asking students to try and pinpoint what differences they observed in speech patterns, why they think the differences exist, and how they think the use of an incorrect register might cause miscommunication to occur.

In another example within the section on applied linguistics, I use pictures and to illustrate gender differences in speech. Focusing especially on accompanying nonverbal communication, the pictures are used to show the tendencies of men and women when speaking to one another. Questions then ask if students notice a power differential in speech patterns and why they think it occurs. The scenario is repeated in a reverse manner, with a female dominating the conversation, to show how cultural norms exist in “acceptable” speech patterns for women and men.

I conclude the section on applied linguistics by showing the importance of language in understanding other people. To depict this point, I use a photograph from the recent docking of the U.S. Space Shuttle with the Russian Space Station Mir. In the photograph, the Russians and Americans are shaking hands aboard the space station, in front of a backdrop of American and Russian flags. This image is then followed by a powerful image from Desert Storm, showing soldiers at war in the Iraqi desert. The

message is to show that understanding and respecting opinions different to your own can be useful and productive for everyone involved. Denying the existence of cultural distinctions and the reasons for them can lead to destruction.

The traditional curriculum is itself an institutional system. To introduce [the future] into higher education means to offer every student an action curriculum--learning experiences in which he can test the implications and practicality of ideas, in which he can see for himself which subjects and styles of learning are relevant, in which he can generate his own ideas, select the problems he will pursue, and examine the future consequences of present action (Werdell 1974:291).

As Werdell implied over twenty years ago, the use of critical thinking reflection questions make students think about issues which affect their everyday lives. This idea is a central notion to creating “relevant” curricula.

Besides making a series of recommendations for current policy change, futurists have also speculated on learning environments of the future. These predictions are based on technological change and environmental scanning. The following prediction was made twenty-five years ago and has only recently become a reality:

...more importantly, computer-assisted education, programmed instruction and other such techniques, despite popular misconceptions, radically enhance the possibility of diversity in the classroom. A good deal of education will take place in the students’ own room at home or in a dorm, at hours of his own choosing (Toffler 1970:275).

Toffler was alluding to the “computerization of instruction.” While right in his predictions of computer-assisted instruction, Toffler failed to realize the important role that the instructor would still play in the learning process. The solution to this problem is effective use and integration of technology with instructor supervision and guidance. My



simulation instructions outline the importance of combining classroom lecture or discussion with computer-assisted learning<sup>37</sup>.

The work of educational futurists is therefore having an impact on the reform movement in higher education. From the earliest works of John Dewey, to the critical pedagogies of Paulo Freire, Michael Apple, and other educational reformers, change has always been reflected as a fight against the institutionalization of learning. McLaren calls institutionalization a form of “cultural imperialism,” broadly defined by the “universalization of one group’s experience and culture and its establishment as the norm” (1995:20). Critical pedagogy examines schools both in their historical context and as part of the existing social and political fabric that characterizes the dominant society (McLaren 1995:167).

But why is institutionalization such a bad thing? First, it limits creativity and the evolution of culture because a culture must adapt to the influences of outside forces interacting on it. Second, institutions control human conduct by setting up redefined patterns of conduct, which channel it in one direction against many other directions which could theoretically be possible (Berger and Luckmann 1966:55). The reform movement is creative, empowering, current, and critical all at the same time. As an educational anthropologist, one has to be open to these types of forces because they are the ingenuity behind the curriculum development process.

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<sup>37</sup> See *Appendix A* for instructor recommendations.

## CHAPTER 7

### **The Oracle at Delphi: Predictions and Possibilities**

In ancient times, the Greeks consulted oracles for predictions of events and determination of potential outcomes. The idea was that the Muses would know more about the affects of outsiders on local cultures than Greek citizens themselves. To find answers to our own questions, we consult a modern day oracle: ourselves, our interests, and our abilities. We are the Muses who must determine our own fate.

As this internship thesis illustrates, curriculum development is not an easy process, but rather a complex entity which requires consistent nurturing by the researcher in order to create a product which can not only teach students the basics, but open up their minds to a wide spectrum of possibilities. When used correctly, it can transform learning from a passive into an active process; it can create critical thinkers out of ordinary learners; it can be adapted to a changing global environment; it can make one aware that there is more to the world than what is in our own little secluded worlds. Spindler has said that the model of education which will emerge in modernizing nations will be one that puts the school in perspective, emphasizing education as a part of life within a changing community (1987:332).

Culture change and multiculturalism are two important facets of our everyday lives. Immigration and shifting demographics are creating a more and more ethnically and culturally diverse population. No longer can American culture only be seen from the views of a Western European-centered paradigm nor can we be isolationist in our relationship to the outside world. Multiculturalism is not something only to be celebrated

on “ethnic heritage days” or only acknowledged in affirmative action legislation<sup>38</sup>. Both promote stereotypical assumptions about ethnicities and cultures rather than seeing diversity as a component that can enrich all of our lives and as something which varies from community to community. American culture is changing and as we compete for jobs in a global marketplace, understanding the ways of others will continue to form an integral part of how we relate to the working world. In my perspective on developing introductory anthropology curriculum, I took Spindler’s view of the purposes of an introductory course and combined them with my own futurist thinking. Spindler says:

Some of the purposes of the introductory course in [most] places where it is given are to communicate: a sense of the wide range and variability of human culture; an appreciation of cultures (and societies) as holistic systems; a respect for other ways of life and an understanding of ethnocentrism; a perspective on one’s own culture and insights into modern life through the application of anthropological concepts; an awareness of the continuity of human life in long-term evolutionary perspective; and finally, some conception of anthropology as a discipline (1987:497-498).

It is important to remember that most students who are enrolled in introductory anthropology are not going to become anthropology majors. For this reason, a general understanding of humanity and life processes should be at the forefront of teaching an introductory course. Spindler’s statement is an applied perspective on anthropological curriculum, but he assumes that the majority of schools follow his methodology in introductory courses. If this were true everywhere, there would not be a need for curriculum changes that update cultural relevancy in curricula, nor would there be the

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<sup>38</sup> At the time of the writing of this thesis, a nationwide movement at abolishing affirmative action legislation is on the rise. California is one recent state to abolish AA legislation.

prolific growth of applied anthropology programs and texts that we see happening today (Van Willigan 1993).

On a final note, “What does the oracle have to tell us about technology?”

Technology is playing an increasing role in our culture. It is making communication faster and easier; it is spreading news and ideas quickly and efficiently. Whether we see ourselves as luddites<sup>39</sup> or technocrats, the reality is that the use of technology is growing everyday in nearly every sector of our society, from banking and business to education.

Technology need not be our demise, for there are many advantages to technology as well. My internship experience aimed at the progressive application of technology to the teaching of cultural anthropology. By doing so, it has made the learning experience a little more dynamic; a little more creative. Distance education<sup>40</sup> has the potential to open up the doors of learning to many people who previously had no way to learn. It also has been able to illustrate ideas and concepts that previously may have been impossible or difficult to explain.

As technology plays an increasing role in education, it will become necessary for more research to be done in human-computer interaction and learning style research. It will also be necessary for researchers to look at the impacts of technology on educational administration and the structure of learning environments themselves (the institutions). In order for an institution to survive, it must be willing to change. Some call this the “change to remain the same” position; I call it the “change or die” scenario.

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<sup>39</sup> A term originally derived from the leader Ned Ludlum in an early 19th century rebellion against technology in England (Volti 1992:21). A *luddite* has come to refer to “anyone who fears technological advancement, often to the point of avoiding its use.”

<sup>40</sup> *Distance education* is any delivery method which makes access to learning opportunities possible for people in remote locales.

A major problem affecting higher education in this country is the conversion of campuses into “information campuses.” This will not be an easy process. In fact, most colleges and universities will not be able to make the change until there is further advancement in management philosophies, computer hardware, software, “learnware,” and in acceptance by the general society (Dunn 1994:40-41). Societal acceptance is already taking place. The next leap is administrative acceptance.

Applied educational anthropology can offer a solution to our problems in education. By understanding the relationship between micro institutional and community levels of interaction and connecting these with broader changes in American and global culture, anthropologists can predict where change is needed and propose recommendations to meet those changes. Only an anthropologist can so easily enter any sector of society, analyze a situation from multiple perspectives, and present solutions to a problem. The anthropologist by way of training is not trapped into one profession’s perspective on a situation but can facilitate discussion between parties (cultural broker) and can speak as best he/she can about how different people may see the situation. In some ways the anthropologist has “no profession,” in other ways the uniqueness of the anthropologist is a profession in and of itself. And so, what can the Oracle tell us? The future is in our own hands. No one can create it but ourselves. We must love it, live it, and nurture it.

I conclude with a statement from the late Kenneth Boulding, economist (1995:viii):

No matter how rich we are or how powerful we are, if we do not produce people who can at least begin to expand into the enormous potential of

man, the society must be adjudged a failure. The educational system...must never lose sight of the fact that it is producing people as ends, no means. It is producing men, not manpower, people, not biologically generated nonlinear computers.

The anthropologist has the skills and the understanding to realize the role of reform in curriculum. He also can see both limitations and potentialities of curriculum change. While the educator may be more experienced in the classroom itself, the anthropologist can serve as a Muse for many different voices, effectively melding the interests of different parties into a salient product, which is the curriculum.

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## APPENDIX A

## The Mission and Purposes of Mesa Community College

### MISSION

**Mesa Community College** is a multipurpose institution of higher education that:

**Provides** opportunities for lifelong learning to a diverse student population.

**Promotes** excellence in teaching, learning, and service.

**Encourages** collaboration among its students, faculty, staff, and community, within a multicultural world.

### PURPOSES

In order to accomplish its mission, Mesa Community College provides the following:

**General Education** - Liberal arts courses that meet the requirements for all two-year degrees.

**College Transfer** - Coursework which can be transferred to colleges and universities.

**Occupational/Technical and Retraining Programs** - Associate of Applied Science (AAS) degrees, certificate programs and courses to provide job training, retraining and upgrading of skills.

**Community Service** - Establish collaborative partnerships with schools, agencies, businesses and other entities in the surrounding area to meet the educational, cultural and volunteer service needs of the community.

**Continuing Education** - Classes, lectures, workshops and other opportunities offered for the enrichment of lifelong learners.

**Basic Skills Education** - An opportunity to acquire the learning skills necessary for success in a college environment.

**Student Support** - Comprehensive, college-wide services to meet the academic, civic, emotional, physical, practical and social needs of students to help them fulfill their personal and career goals.

**Business and Industry Support** - Partnerships with organizations and agencies to provide general and customized training to the workforce.

In order to accomplish its mission and purposes, Mesa Community College has developed a Strategic Plan that will:

Provide **access** to all teaching, learning, and support functions of the college.

Encourage **excellence** in all teaching, learning and support functions of the college.

Support effective internal and external **communication**, with an emphasis on increased participation.

(Copyright Mesa Community College, Mesa, AZ)



## THE LANGUAGE & CULTURE WWW SIMULATION

The "Introduction to Anthropological Linguistics" program is designed as a classroom aide for students in introductory anthropology and/or linguistics courses. While it can be used to replace certain instructor lectures, its goal is rather to enhance instruction through multimedia and spark student interest in subject matter. Designed to accommodate both instructors' and students' needs, the simulation provides the following advantages for both students and instructors:

1. An option to traditional classroom lectures. Designed for maximum flexibility, the simulation allows instructors to focus on the content areas they deem the most important or relevant for students in a course.
2. An allowance for self-paced student learning. Making use of hypertext links based on content, students can freely review concepts they do not understand and progress at their own speed.
3. The advantages of a multimedia format over that of a textbook. Anthropological linguistics is important to understanding relationships between language, culture, and world view. Textbooks often touch upon this subject briefly or in a confusing manner. The simulation makes use of pictures, charts, sound, video segments, animation, and text to illustrate key points which are easily accessible through a "point & click" interface.
4. The simulation is broad enough in scope to introduce students to all the variety of anthropological linguistics, yet simple enough for students to grasp the necessary concepts and avoid confusion. The simulation covers historical, theoretical, socio, and applied linguistics, focusing specifically on relating the areas of linguistics to everyday life in a changing world.
5. Each section either concludes or has a series of review questions that encourage critical thinking interspersed throughout the texts. These questions can be answered individually, in small groups, or used to facilitate classroom discussion.
6. Making use of the growing HyperText Markup Language (HTML) and the World Wide Web, the simulation is dynamic. It can easily be modified as instructor, student, or course needs change. Using a series of links, all themes are interconnected and easily accessible.
7. Students can work from either computers at school, or if they have access to a home computer and modem, from home. They need not be limited to lab usage.
8. The simulation is portable. While written to run on a UNIX-based computer system, the "Introduction to Anthropological Linguistics" simulation and tutorial can be run on



local area networks (LANs) at any college or university, or accessed remotely from anywhere in the world via the World Wide Web (WWW) portion of the Internet.

## Content Themes

The anthropological linguistics simulation is divided into the following areas of subject matter and related themes:

### **Introduction**

Presents the concepts of language and linguistics and frames the content areas of the simulation which can be explored.

### **Theoretical & Developmental Linguistics**

The Grammar of language: explores the relationship of language sound systems and syntactical structures to cultural origins and differentiation.

Language Acquisition: introduces students to the universal stages of language learning and speech production.

The Mental Processes of Language: focuses on brain functioning in speech production, primate language studies, and the semantics of language, including comparative reflections on the Sapir-Whorf hypothesis.

### **Historical Linguistics**

Language Mapping: explains the historical development of languages via clickable maps of language families and geographical relationships of language to culture.

Language Diffusion: introduces the concept of "culture contact" in the development of languages through word borrowing.

Language Change: explores language change in both historical and contemporary contexts through the evolution of the English language, the development of dialects (language isolation), and generational changes in language.

Globalization: looks at trade languages (pidgins), creoles, and lingua francas...why and how they develop. Speculations on the future of language are presented.

## **Sociolinguistics**

Looks at verbal and nonverbal communication and how they relate to cultural similarities and differences. Examples of situational dialects, linguistic repertoires, spacial distributions, and body movement through multimedia illustrate key concepts.

## **Applied Linguistics**

Focuses on the importance of linguistics in everyday life. While providing a holistic integration for the other parts of the simulation, this section introduces students to the many roles linguists serve in society. These include education, fieldwork, and the promotion of intercultural and intracultural understanding between peoples.

## **System Requirements**

You and / or your students will require access to a computer running the latest version of the Netscape(tm) or compatible Web browser software. Appropriate sound and graphics drivers should be present as well. The simulation has been accessed and tested by both Macintosh and IBM-compatible systems with minor differences. It has also been tested successfully through the Internet using a 14.4 baud modem with SLIP / PPP connections. Load times are minimal.

## **LANGUAGE AND LINGUISTICS**

The study of language is important to understanding our world and the diversity of peoples and cultures that exist within it. All living things possess some form of language, without which there would be no communication and we as human beings could not exist. Language also allows us to shape our world, thereby building culture. As you will see in the exercises that follow, not everyone perceives the world in the same way. This has a significant impact on the development of different cultures and languages.

We begin our journey with three essential questions about linguistics. They are:

1. What is linguistics?
2. What are the types of linguistics?
3. Why should we study linguistics?

### **WHAT IS LINGUISTICS?**

Linguistics is the study of human language in all its diversity, from grammar and sound systems (phonetics) to the meaning of language (semantics). A simple way to explain this is:

"Why we say what we say and how we say it."

As linguistics studies language, it includes both verbal and nonverbal and nonverbal communication.

### **VERBAL COMMUNICATION**

Verbal communication, the most commonly studied form of language, is primarily concerned with speech patterns. By studying these patterns, we can learn about a person's culture or lifestyle, leading us to a better understanding of others and insights into human nature.

[insert text & sound graphics for English / Spanish]

"I was born in Phoenix, Arizona in 1952. I have three children and work in Tempé."  
"Nací en Phoenix, Arizona en 1952. Tengo tres hijos y me empleo en Tempé."

### **NONVERBAL COMMUNICATION**

Nonverbal communication in linguistics consists of the signs and symbols that accompany language use, including sign language.

[insert picture of ASL chart and picture of a person signing]

## **HISTORICAL LINGUISTICS**

Historical linguistics is another kind of linguistics which studies how languages develop and change through time. In this section, we will explore three key areas central to understanding historical linguistics: Language mapping, language diffusion, and language change. We will then use the knowledge gained about historical linguistics to speculate on the future of languages as they relate to culture.

### **Language Mapping**

Language mapping involves the tracing of languages back to their historical origins. This is done through a method known as comparative linguistics. Comparative linguistics is the process of classifying languages based on similarities in their phonetic systems, syntax, and word cognates. You have already seen some of this when you compared languages by looking at sentence syntax and language universals (clickable return-link) earlier. By combining similar languages, you create language families. Languages classified as being of the same family often include peoples that are close geographically and similar culturally. For example:

**The Afro-Asiatic Language Family**  
**The Indo-European Language Family**  
**The Iroquoian & Athapaskan Language Families**

**[Click here for a detailed map of Language Families]**

**The "Afro-Asiatic" Language Family**  
**[Northern Africa & Western Asia]**

Masa-chadic  
Aramaic  
Egyptian  
Berber

**[Click on sound sample of one of the above languages]**

**The Indo-European Language Family**  
**[Western Europe]**

English  
German  
French  
Spanish

**[Click on sound sample of the above languages]**

**[Click area for picture #1 of Indo-European tree]**

**Athapaskan Family**  
**[Southwestern U.S.]**

Navajo  
Apache  
Hupa  
Chipewyan

[Click-on sound sample]

**Iroquoian Family**  
**[Northeastern U.S.]**

Ojibwe  
Oneida  
Cherokee  
Onondoga

[Click on sound sample]

**Language Family Map**

[insert picture with clickable colored sections]

The following language families are clickable-->Indo-European, Afro-Asiatic, Iroquoian, Athapaskan, Austro-Asiatic, Eskimo-Aleut, Mayan, Aymaran, Sino-Tibetan, Australian.

## Language Diffusion

Language Diffusion refers to the spread of characteristics from one language to another across time. One common form of this is by borrowing words from one language to use in another. This tends to occur when a language does not have a word to represent something or when emphasis is needed. Borrowing can also occur when cultures come into contact. The following are examples of words borrowed into **English** from other languages. Can you identify the parent languages?

1. kindergarten, bratwurst, bier [German]
2. dé ja' vous, bon appetit [French]
3. mesa, patio [Spanish]
4. algebra, alcohol [Arabic]
5. alumni, quorum [Latin]

## Language Change

Language change refers to the transformation of language through time. Just as cultures are alive and always changing, so is language. If a language does not adapt through time, it will cease to exist. And loss of a language is loss of culture. There are two principal types of language change: historical change and contemporary change.

### **Historical Language Change**

Historically, languages evolve. This is how different languages begin by diverging from one another to eventually become separate languages all together. [[click on link to the indo-european family tree](#)]. In English, the historical development of the language has been categorized into four stages: Old English (449-1100 C.E.), Middle English (1100-1500), and Modern English (1500-present). Listen to each of the following sentences for differences in sound, and observe the changes in sentence structure.

Old English (Beowulf): Wolde guman findan pone pe him on sweofote sare geteode.  
(He wanted to find the man who harmed him while he slept.)

Middle English (Canterbury Tales): Whan that Aprille with his shoures soote  
The droghte of March hath perced to the roote...  
(When April with its sweet showers)  
(The drought of March has pierced to the root...)

Early Modern (Shakespeare): A man may fish with the worm that hath ear of a king, and  
eat of the fish that hath fed of that worm.

Modern English (Charles Dickens): It was a town of machinery and tall chimneys, out of

which interminable serpents of smoke trailed themselves forever and ever.

Both the structure and sound of English has changed dramatically through the years. In fact, Old English sounds and looks so remote from Modern English that even with a translation it seems like a foreign language.

Have you ever wondered why many words in English are spelled or pronounced funny?

[insert comic for "autumn" here]

As English changed pronunciation, we dropped certain vowels from the ends of words. The consonants were left to preserve meaning. Who knows. If given enough time (and spelling errors), autumn may indeed one day be spelled "autum."

### **Contemporary Language Change**

Change in languages is not limited to the past, but is still occurring every day. This can be seen between generations and in the formation of dialects.

**Dialects** are language varieties shared by particular groups of speakers. In English, there are many dialects. People from the Northeast sound different from people in the Southern United States. There are also dialects outside this country such as Australian (sound clip), British English (sound clip), or Canadian (sound clip). Not only are these dialects different from "American English," but just as in this country there are also regional differences within each dialect. Dialects develop when a language changes in isolation from its "parent." These changes come to represent distinct cultural differences. When a dialect develops to the point that its structure and pronunciation have changed so much from its "mother tongue," another language is formed.

### **How do language dialects help us to understand culture?**

You may have noticed before that some segments of society speak differently from others. The reasons for these differences may be attributed to status or ethnicity. Two such examples are "Black English Vernacular" (BEV) and "Chicano English" (ChE).

BEV and ChE have distinct rules to their speech patterns. For example, BEV does not inflect the verb "to be" in a sentence where an action is habitual (consistently true):

Johnny be good. (BEV)



BEV also deletes the consonant "r" from speech except when before a vowel and deletes the consonant "l" altogether. Double negatives in sentences are also common.

ChE applies double negatives to sentences also as in:

I don't have no money. (ChE)

The differences in BEV and ChE from Standard American English have been used to perpetuate prejudice, discrimination, and sometimes "racism." These differences are cultural and not at all reflections of an inferior intelligence. The changes are "rule governed." It should be added that English included double negatives until rather recently in its genetic history. The rules of ChE reflect those of Spanish which still uses double negatives.

**Generational differences** in speaking also lead to language change. This is most notable in the growth of slang expressions or lingo.

Slang expressions primarily originate from "pop culture." Driven by the media and subcultures, slang expressions enter the mainstream culture little by little until they are accepted and understood by all segments of society. Music and movies are the most powerful forms of media for influencing language. By appealing to the youth of a culture, the new words and meanings gained will be passed into mainstream culture as these people grow older. Generation "X" is having a very profound influence on the development of the English language. The following is a list of slang words and expressions:

cool!  
Smokin'!  
¿Comprende?  
Have a cow, man!  
Just me and my homies.

Lingo is "manners of speaking." They are the use of a certain speech style by a segment of the larger society. "Street talk" and "rap" are examples of lingo.

### **Globalization and Language Change**

In this age of the "shrinking planet Earth," technology has become the most powerful driving force behind language change. Cultures and their languages that had previously been little known are now influencing other cultures. While the media and satellite television have brought American programming and culture to far reaching parts of the globe, the growth of the Internet is a significant part of language change today and will continue to be in the future.

## The Language of the Internet

Electronic mail (e-mail) is now known the world over. It is not only used by businesses and university intellectuals, but is accessible to the common user through on-line services like America On-Line and Prodigy. E-mail tends to be short, concise, and use specific "type shortened" terms. Take a look at the following informal message passed between friends:

Bill:

Hiya! Got your message re: the fishing trip. Sounds great! If I don't catch you in VR before then, I'll see you f-2-f IRL on Saturday, ok? Ciao!

Roger

*Translation:* Hi. I got your message about the fishing trip. It sounds great! If I don't hear from you on the computer before then, I'll see you face-to-face in real life on Saturday, ok? Bye!

## Pidgins, Creoles, and Lingua Francas

Another area in which globalization affects language change is in the creation of what are called pidgins, creoles, and lingua francas.

[insert picture of Tok Pisin]

**Pidgins** are simplified languages created for communication between people who can't understand one another's languages. Frequently used for trade, pidgins serve a specific purpose and are only used in that context. Here is an example. See if you can translate it by referring to the picture above:

"Mipela I save selum ol pik bilong kaikai long ol singsing pati ia...na ol pik I hevi tumas...tasol ISUZU KB20 em I gutwan tru long karim ol I go."

Answer: "We frequently sell pigs for eating at dance parties. But pigs are very heavy so Isuzu KB20s are excellent to carry them all away."

**Creoles** are pidgins that are adopted by a group of people as their first language. When it is taught to children, a pidgin has become a creole. Haitian creole is one such example. It is a modified version of French that was used as a trade language among the islanders. Can you think of any others?

**Lingua francas** are complete other languages adopted by groups of people for communication and trade. What makes them different from pidgins and creoles are that the languages chosen are not modified. English and Spanish are two important lingua francas in our world today.

### **The Future of Language**

The future of language remains a mystery. Some obvious predictions can be made:

1. There are currently 2000+ languages spoken by the people of the world. This number will undoubtedly decrease as time passes. Many languages will be abandoned as Native cultures disappear or are absorbed into larger cultures which use a different language.

2. It is unlikely that any language in its current form will replace all other languages. All languages change, and while it is possible that one language may dominate in the years ahead, it is also likely that the dominant language will be different from those spoken today.

What do you think?

## SOCIOLINGUISTICS

Sociolinguistics is the study of language, focusing on the relationship between language and culture or society. By studying how people relate to and interact with their environments, we learn to better understand cultural differences and the reasons why they exist. One way of studying sociolinguistics is to look at the meaning (semantics) behind language. Another way is through studying the situational context of language and seeing how this is similar or different cross-culturally. This is sometimes called the "ethnography of communication." Sociolinguists not only look at spoken language, but they also study its accompanying nonverbal gestures.

## VERBAL COMMUNICATION

One particular area of study for sociolinguists is verbal communication. As you may be aware, people do not always talk the same all the time. Instead, they vary word choice and tone of their speech based on their audience. One such example is when talking to a child vs. a peer. [sample of voice to a child] These changes in the way we speak are called Situational Dialects or "registers." We do not, however, only change our speech when talking to different age groups. Take the following, for instance:

[picture #1 is of a business setting w/ sound clip of the meeting]

[picture #2 is of one of the same people from picture #1 in conversation with friend(s) and accompanying sound clip]

What differences can you notice between the language used in each scenario?

Sometimes using an inappropriate register can create problems when trying to communicate with others. What do you think would occur were the speaker to use informal speech at the meeting?

Linguistic repertoires are another form of verbal sociolinguistics. Like registers, repertoires are the speech styles used in different settings. What sets them apart, however, is the customized vocabulary that accompanies them. i.e. linguistic repertoires include specialized vocabulary often associated with a particular trade or occupation. Take the following three scenarios for instance:

[Scenario #1 is a picture of a computer salesperson or operator w/ sound clip of 'computer jargon']

[Scenario #2 is a picture of a person in the military w/ sound clip of his/her use of 'military talk']

[Scenario #3 is a mechanic w/ sound clip of 'repair talk']

Did you notice any differences between the vocabularies each person used? Could you understand any of them? Linguistic repertoires are acquired unconsciously by the speaker and any one person will have many repertoires. It is often only when someone is unable to understand the speaker that one becomes aware that the listener is being confused. Sociolinguists study how these speech styles develop and evolve with time. They also search for ways to prevent miscommunication by making the speaker aware of his/her audience so an appropriate register can be chosen that the listener will understand.

Being aware that miscommunication can occur is central to preventing it. When people from different cultures come into contact, the possibility of miscommunication increases if one is not aware of the customs and language of another. For example, it has been documented that Navajo males tend to pause when speaking. In a classroom, this could result in a student being overlooked during a question and answer session. The pausing is not due to any lack of intelligence, but rather a cultural attribute. In Navajo culture, males are not as outspoken as females. They are taught to reason out an answer thoroughly before verbally expressing their thoughts. The results of this study suggest that an instructor should wait about 15 seconds rather than the typical 3-5 before soliciting a student for an answer to a question. In our growing multicultural society, understanding cultural differences is important to our everyday lives.

### **NONVERBAL COMMUNICATION**

Sociolinguistics not only pertains to verbal communication, but also looks at the way in spatial relationships (proxemics), body movement (kinesics), and our senses are used when speaking to others. The anthropologist Edward T. Hall pioneered the research in this area made famous by his books *The Silent language* and *Beyond Culture*, among others. Hall's research found that there are distinct similarities and differences between cultures in the ways the body is used when communicating with other people. Take a look at the following pictures. Can you see any differences?

[Picture #1 is of two Arabs in close contact for conversation]

[Picture #2 is of two Americans at conversation distance]

[Note: Pictures are to be placed side-by-side for easy comparison]

We need not look at foreign cultures to observe differences such as those above. Edward Hall's research revealed several distances people use when communicating with others. These are the intimate, personal, social, and public distances. Hall has defined the following types of distances for Americans:

Type	Proximity	Audience
------	-----------	----------

-----	-----	-----
Intimate	Touching	Family, Lovers
Personal	1 1/2-4 feet	Close friends, Family
Social	4-12 feet	Meeting, Acquaintances
Public	12+ feet	Students, Public crowd

Care must be taken when following the above because there are not only cultural differences in proxemics, but ethnic as well. For instance, Hispanics typically use a closer social distance than Americans of European descent, while African Americans extend their intimate distance to include close friends.

Kinesics is another form of nonverbal communication studied by sociolinguists. This includes facial expressions, body movement, and eye contact. One similarity worldwide appears to be the smile [click to collage image of 4 people from different cultures smiling].

Other kinds of kinesics such as eye contact may be culturally different. African Americans learn to cast their eyes downward when speaking to authority figures rather than use direct eye contact as that of European Americans. This is usually misinterpreted as being a sign of disrespect, when the contrary is the truth. Discovering these kinds of differences and making them available to the public is one of the many roles of sociolinguists.

## APPLIED LINGUISTICS

[Insert collage photo here]

[Note: Collage photo consists of an image of four pictures. #1 is of a teacher in a classroom instructing students in their native language. #2 of an anthropologist among the Yanomamo, #3 of a man and woman in conversation, #4 of an interethnic conversation]

Applied linguistics refers to the many roles linguists perform in understanding the connections between language and culture. By observing these connections, applied linguists work to bring about positive changes for society. You have already seen how the study of language reveals how people interact in a continuously changing world. In today's society, linguists perform a number of important functions. They work in health care, education, economic development, foreign trade, and diplomacy. Applied linguists also look at problems of gender differences in communication and how these may be overcome.

1. Health Care
2. Education
3. Development
4. Gender

Anthropologists employed as linguists can contribute heavily to the health care field. As doctors and nurses must treat patients from many different ethnic and cultural backgrounds, linguistics can play a vital role in interpreting the problem of a patient and effectively communicating a solution that is both culturally sensitive and comprehensible to that patient.

[Picture #1 of educational setting (from collage)]

In education, understanding the connection between language and culture is used to create and maintain diversity in the classroom. Understanding that children come from different backgrounds and may interpret the world differently is central to the anthropology of education. One problem is the equality of educational testing. It has frequently been said that many methods of standardized testing are biased against minorities. Sometimes the language used is "unfamiliar" to the person taking the exam. Applied linguistics has revealed the biases in these exams leading to changes in format and approach.

[Picture #2 of an anthropologist in the field]

Applied linguistics has also furthered indigenous rights through giving Native peoples a voice in determining their own economic trade and development. By listening and helping to translate the wishes of peoples, applied linguistics bridges the gap between cultural systems. Were it not for the work of applied anthropologists and linguists, the

situation in Chiapas may not have reached the World or Native peoples of the United States may not have regained much of their previously lost sovereignty.

[Picture #3 of a male/female conversation. Label: Verbal]

[Picture #4 of male / female sitting. Label: Nonverbal]

[Note: Pictures are placed side-by-side]

One area of recent study in applied anthropological linguistics is gender issues. Through the work of applied sociolinguists, differences in female-male communication have been identified and used to improve relations. Looking at the pictures above, what gender differences can you observe?

Applied sociolinguists studying gender have discovered the following observations when comparing female and male speech:

### Female

Women ask more questions to get males to speak.

Women are more likely to protest "silently" if they are interrupted when speaking.

Women use "we" and "you" which include the listener in the conversation.

Women maintain positioning and eye contact towards their audience.

Women are more likely to show signs of interest in conversation such as nodding.

### Male

Men are more likely to interrupt a speaker.

Men are more likely to argue or use a loud and aggressive tone.

Men are more likely to ignore a speaker.

Men often manipulate the conversation by changing the topic.

When in conversation, men use language to assert their position and gain an audience.

What do you think are some of the cultural reasons for these differences? Applied linguists have tied many of these differences to traditional female-male roles which continue to dominate much of our upbringing.

Another area of gender issues in communication is in word selection. Take a look at the following two sentences:

"All **men** are created equal."

"You **guys** are nuts." [directed towards a mixed-sex group]

What impression do they leave on you? The first sentence implies that either all people are men or only men control our destiny. The second sentence treats all people present as male when that is not the case. In a traditionally male-dominated society, such word choice was common. It lessens the importance of women's presence and



contributions to our culture. Can you think of any ways to rephrase the sentences to make the language less sexist?

Applied sociolinguists see the issue of gender as important for building intracultural understanding between women and men. By making people aware of gender differences in language, a more egalitarian society can be achieved.

### **The Role of Applied Linguistics in the Future of Humanity**

As we move into the future, applied linguistics will have an increasingly important role. Shifting population demographics, a growing multicultural society, and increased globalization of our economies and communication systems will require that everyone be aware of the important connections between language, culture, and World View. Even Space will become an issue as joint efforts to create a space station and mission to Mars will require understanding of languages and cultures different from our own.

[Picture #5 of astronaut Norman Thagard aboard the Russian space station Mir]

What does the future hold for humanity? Will it be peace?

[Picture #6 of peace treaty]

...or destruction?

[Picture #7 of Desert storm mission]

Through the work of applied linguistics, situations such as the above may be able to be avoided...and the choice is ours.

## **THEORETICAL AND DEVELOPMENTAL LINGUISTICS**

The first area of study in anthropological linguistics is an exploration of the grammar, syntax, acquisition, and mental processes involved in language and communication. Understanding these concepts will allow you to see the important relationship between language and culture. This area of linguistic study is divided into three sections:

1. The Grammar of Language explores the connection between units of sound (phonemes) and units of meaning (morphemes). Comparing these systems allows us to see that people with similar languages often have similar cultural roots. The section concludes with a series of exercises in comparative linguistics designed to illustrate these similarities and differences.
2. The Study of Language Acquisition briefly explains the processes involved in language acquisition. Parallels are then drawn to universals in learning language.
3. The Mental Processes of Language discusses the brain's involvement in language production, primate studies of language, and the cultural meanings connected to the development of languages. Each subsection contains several reflection questions based on the material presented.

### **The Grammar Behind Language**

All languages have a fundamental base which determines the manner in which they are constructed. Without this base, communication would not be possible; nothing would make any sense.

[click here for the image "cave\_lan.jpg"]

All languages are composed of phonemes and morphemes. Phonemes are the "smallest single units of sound that can be produced in a language." The following are examples of phonemes in four different languages. Can you identify which languages are the most similar?

[collage chart of 6 languages: English, German, Spanish, French, Arabic, Navajo, Klingon, Russian]

[Images are actually phonetic alphabet charts. Below each chart is a chance to click and hear an identical sentence in each of the languages. The sentence is: Where is the bathroom?]

## THE GRAMMAR OF LANGUAGE

This section focuses on the grammar and syntax of language. Beginning with an explanation of the phonological and morphological structures of speech, a progression is made into syntax as it relates to word order and sentence formation.

Instruction on phonetics allows a side-by-side comparison of several languages. I have arbitrarily chosen English, Spanish, Arabic, and the chosen "invented" language of Klingon. All are easily accessible at MCC. The phonemes of each language (smallest units of sound) appear by a series of charts, each depicting the phonemes and allowing click-on pronunciation examples. Morphemes (the smallest units of meaning within a language) are presented in a similar fashion but with words and sentence fragments. An initial screen provides rudimentary definitions of phonemes and morphemes before their respective charts and diagrams are shown to students.

Syntax is approached in a slightly different manner. I have broken this down into four screens with presentations of four languages within each screen. For example:

### Screen 1

Spanish: El gran globo rojo.  
French: Le grande balon rouge.  
Arabic:  
Klingon: Balloon tIn Doq

Questions: Which two languages are the most similar in syntax?  
Why do you think that is?

### Screen 2

Vietnamese:  
Navajo:  
German: Der grosse rote ballon.  
English: The big red balloon.

### Screen 3

Chinese:  
Japanese:  
Russian:  
Latin:

### Screen 4

Arabic:  
Italian:  
Swahili:  
Navajo:

The same questions are repeated for each screen. After conclusion of this section, an explanation of language universals and parallels can be drawn because of the syntax grouping exercises. Trends in language diffusion will help students understand the content area of "Historical Linguistics" and trace language origins.

## THE MENTAL PROCESSES OF LANGUAGE

The mental processes of language can be broken down into 3 essential categories:

1. Brain functions (including language disorders)
2. Primate Studies (evolution and language development)
3. Language Semantics

The section on brain function & language organization focuses on the areas of speech development within the brain, and most especially on language disorders (aphasias) because this relates directly to the grammatical structure of speech and is reflected both in signing and verbal speech systems.

Primate studies are organized around an evolutionary argument for speech development. A number of questions arise: Did human speech arise from primates? Do or can primates learn to communicate in much the same way as humans? What makes human speech and communication unique from primates? What extent does the environment play in the development of speech? The discussion includes the issues of closed vs. open speech systems, displacement (discussion of topics irrelevant of space and time), and arbitrariness (abstract notions, infinite word order combinations and semantic interpretations). Chimpanzee and Gorilla speech and signing studies are presented to illustrate human evolution in communication. e.g. Koko and Washoe. (Note: see Polly)

Language semantics moves into the realm of psycholinguistics and ethnolinguistics. The intertwining of language and World View are explored through the Sapir-Whorf hypothesis as portrayed in language development and the relativity of time.

## **APPENDIX B**

## ASB102 Language Content Areas

### Nonverbal Communication & Language

#### 1. Proxemics (spatial relationships)

- Hispanics are more intimate (closer) during conversations.
- Western Europeans prefer more space (minus the French).
- Arabs use close contact and touching. (private, personal, social distances)
- The human-animal connection (overcrowding, defense mechanisms)
- Territoriality of Americans:

e.g. Workspaces. The larger the better for Americans  
Japanese use cubicles and tight sleeping spaces

#### 2. Eye Contact

- Western Europeans are taught to look one in the eye as a sign of respect.
- African American and Hispanic cultures instruct diversion of the eyes as a method of respect to authority.
- Arab cultures use direct eye contact continuously.

#### 3. Senses (esp. thermal) and Language

- The concept of "space" as defined by statements such as:  
"hot under the collar" or "a heated argument."

### Verbal Communication and Language Change

#### 3. Slang Expressions

- Show language change. They are "alive."
- Compare language "purists / refiners" to typical culture.
- Words take on multiple meanings:

e.g. "Have a cow man!" (don't say to a Hindu!)  
"That's really cool!"

#### 4. Signing and the Spoken Word

- Both have grammatical structure (syntax) and meaning
- Signing is visual and spatial using both hemispheres of the brain  
yet is processed like speech on the left side.

#### 5. Language Differentiation

A. Indigenous (particular AmerInd languages) vs. European

--The descriptiveness of Navajo, Apache, or Kwakiutl  
(all Athapaskan in origin)

B. Lineality vs. Circumlocution in Speaking Styles

--Navajo circular pattern. beginning with an statement  
and ending where one begins, re-emphasizing the  
original point. Also true in Hispanic non-European  
cultures. For Western Europeans, the speech pattern  
is linear, beginning with a statement, passing through a  
series of points, and ending with a concluding statement.

C. Repetition of Sounds and Words

--Song & Ceremony.

D. Tonal vs. Non-tonal Languages

--Chinese vs. English. A variation in pitch can result in  
conveying an entirely different meaning. (give examples)

E. Accents Change Meaning

--Navajo or Spanish. Wrong accented syllables in English  
result in "nonsense words."

F. The "Threat" of Literal Translations and Context. (This explains why  
sociolinguistics is so important. Regionalisms are also imp)

--A student goes to Mexico for Spring Break. After some  
drinking, the student finds himself separated from his  
friends. A policeman approaches and accuses the  
student of "public drunkenness." The student wants to  
say "I want to discuss this," but in Mexico, "to discuss"  
does NOT equal "discutir" as the dictionary says. The  
student says "Quiero discutirlo" which means "I want  
to argue this" and gets thrown in jail for the night.

G. Sapir-Whorf Hypothesis

Support for-> baby "babbling" studies in speaking or signing  
Against-> color studies, snow, (ethnosemantic), cognates



#### H. Taboo Words (vary cross-culturally)

- British English's "bloody" eqv. to American "damn"
- Mentioning of a deceased person's name in some Native American groups.

#### I. Euphemisms (metaphors) and Exaggerations

- Kwakiutl
- BEV

#### J. Language Arbitrariness vs. Explicitness

- When someone speaks, they generally leave out part of the statement which is taken to be "understood" by the listener inherently w/o being explicitly stated in the message. This varies by culture. e.g. The Japanese are very explicit about instructions. (shoes)

### 6. Gender Differences

#### A. Cross Cultural

- Women's language use vs. men's language use
- Compare American to Asian

#### B. Intracultural

- Women's verbal abilities vs. men's abilities
- Class status variables
- Use U.S. and foreign cultures

### Language Development

#### 7. Historical Issues

- A. Language Trees (esp. Indo-European)
- B. Language Diffusion (based on trees)

- Show similarities between languages (with samples)

#### 8. Brain & Thought processes

- A. Aphasia (click on brain areas. Linked to speech samples)

- Broca's area
- Wernicke's area

B. Modeling of the layers of the brain

9. Language and Primates

A. Brain Size Comparison

--Show growth in frontal lobe, cerebrum

B. Language Use Comparison

--Call signs vs. speech

--Signing

10. Language Change & Language Preservation

A. Generational

--Addition of words by time (technology & "borrowing")

B. Resistance

--Navajo paraphrasing instead of using the English term

--France and the language "purists"

C. National Identity and Language

--Quebec's separatist movement

--India's attempt at establishing its own lingua franca

--Empowerment vs. suppression

D. Myths and Folktales

--Used in Literate and Non-literate societies for preservation of values, ideologies, and practices (esp. imp. for oral cultures)

E. Alphabets (show examples for syntactical differences?)

--Preservation (Navajo and AmerInd languages)

--Existence in Cherokee, Fox, Cree already

--The Rosetta Stone's importance

**ANTHROPOLOGICAL LINGUISTICS  
PROPOSAL OUTLINE  
6/26/95**

**PURPOSE**

The purpose of this program is to provide an instructional overview of linguistics for introductory cultural anthropology students. With a strong focus on cultural patterns in language, the simulation aims to show how culture and language are intertwined and mutually influential in defining the interaction of people with one another and their environment.

**ORGANIZATION**

The simulation begins with an introduction to the field of linguistics itself, explaining what linguistics is, why we study linguistics, and what the major types of study in linguistics are. This part is primarily text-oriented with possible speech to enhance the effect.

The major screen that introduces the areas students can explore is one depicting the types of linguistics. I have chosen the following 4 content areas:

1. THEORETICAL LINGUISTICS
2. HISTORICAL LINGUISTICS
3. SOCIOLINGUISTICS
4. APPLIED LINGUISTICS

Theoretical Linguistics covers the grammar of language, language acquisition, language semantics, and the mental processes involved in speech formation. Grammar is presented through examples in both European and non-European languages, each depicting the phonological and morphological structures within these languages. Language parallels and universals in phonemes and syntax can be illustrated, allowing the elementary classification of languages which are similar in origin. The section on language acquisition explores the stages of language development in children, showing through speech samples in different languages, how its acquisition is a universally similar process. It also explores the question of whether language acquisition is a biological or a learned process. This question is addressed through second language studies which lean towards a genetic propensity for speech enhanced through the environment. Theoretical linguistics also approaches language semantics (the meaning attached to words). Through presenting the Sapir-Whorf hypothesis (and allowing students to make their own decisions regarding its validity), issues surrounding the reflection of culture in language and vice versa can be illustrated. I have chosen to show through Franz Boas' work with the Inuit and Evans-Pritchard's among the Nuer, lists of words which can be compared to English, depicting how cultures emphasize particular aspects of life through language. The Nuer emphasize cattle, the Inuit, snow, and the English language, technology.

Concepts of time are also introduced in this section, comparing European cultures to Native American and Klingon. In European cultures, expressions of time are in a linear fashion. In Native American cultures, such as among the Navajo, Apache, or Hopi, time is cyclical, and this is reflected in the language. Whorf's work among the Hopi exemplifies this concept. The Klingon culture serves as a "catch" for students. This culture's language directly reflects its "militant" status as portrayed in science fiction. The language, like that of many Asian cultures, does not carry any specific words to express time, but relies on nouns instead in such phrases as "I go tomorrow" or "I go yesterday." Lastly, the mental processes of speech production will emphasize how the brain organizes speech and discuss various language disorders (aphasias). An animated segment of a brain will allow click-on opportunities for students to hear speech examples of people afflicted with damage to either Wernicke's or Broca's areas, thereby seeing and hearing how language is produced. The segment on speech production will also include primate studies of language, showing the evolution of brain size and speech production organs to the development of speech and abstract thought.

Historical Linguistics addresses three pertinent issues: the mapping and tracing of language families and origins, language diffusion, and language change. As students have already been presented with the fundamentals of grammar in the first section, they are shown languages side-by-side so they can make comparisons allowing them to try classifying languages into genealogical families and trace their origins. Detailed maps are provided of language family trees for the major classifications with links to a click-on world map. Language diffusion stresses the concepts of culture contact and borrowing. English words with roots in Arabic or Spanish will be shown in chart form, as well as, words of similar origins in Native American cultures. Language change can be depicted in an evolutionary or generational method. Examples of this are old and young Navajo speakers (generational), and old and young English speakers (generational). Change in the English language can be shown by placing illustrations side-by-side of phonological and morphological changes in its use from Old English, to Middle English, and finally, Modern English. Language change therefore includes the historical "Great Vowel Shift," "slang expressions / lingoes," and "dialects." Lastly, the development of pidgins, creoles, and lingua francas will be illustrated in historical context.

Sociolinguistics as the study of language in its situational context, includes both verbal and nonverbal communication as influenced by culture. Dell Hymes and Edward Hall are the principle researchers of these areas. Verbal communication explores the use of "registers" and "linguistic repertoires." Registers, or situational dialects, are the varieties of speech we use when addressing different audiences. By showing video clips matched with sound bytes, a person's language use in the home or with friends vs. that used in a formal business setting or in a classroom can be depicted. Linguistic repertoires, or language choices available to the speaker, are displayed by a sequence of video and sound clips which show the jargons of various trade professions such as a computer salesperson, a military soldier, and a mechanic. These repertoires reflect language which must be used in the day-to-day working environments of each of these professions. The use of linguistic repertoires can be tied into the issue of language semantics as depicted in

the section on theoretical and developmental linguistics. Lastly, the nonverbal characteristics of sociolinguistics are explored. This is done by using video clips and pictures to show variances in spatial relationships (proxemics), body movement (kinesics), and eye contact cross-culturally.

Applied Linguistics, an area which cross-cuts the other major areas of linguistics, focuses on the study of language for societal benefit, such as language maintenance or recognizing and improving intercultural understanding. Language maintenance can show a language classroom-type setting. Text narration would follow indicating the importance of language for maintaining one's heritage and cultural identity. Intercultural understanding can be presented with a visual representation of a multicultural playground setting or students engaged in conversation. Issues such as language racism, prejudice, and "purism" can also be addressed in this section using the situations of Quebeqian nationalism, the French and English purist movements, and American dialects (like BEV) as examples. Lastly, gender differences in language are presented in a way which shows how men and women speak differently both interculturally and intraculturally and how this is a reflection of cultural differences between peoples.

The research design concludes with a brief section on linguistic futures, indicating where language appears to be headed in the future. This conclusion proposes several questions related to the survival of cultures and languages: What languages will persist or die out? Will the death of a language mean the death of cultures? Will there be one universal language? There are no right or wrong answers to these questions, letting each student express his or her own opinions.

## **METHODS**

The methods employed in this simulation require text, animation, still pictures, sound, and quicktime video in order to effectively present the major content areas of linguistics listed in the previous section. Moreover, a hypertext format would provide an optimum framework for building and linking the content areas. It will allow students to explore level-by-level each content area and jump between sections as they see fit. The Macintosh environment appears the best for developing this educational simulation. Cross-platform use may also be possible via a CD-ROM or network.

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## **Conclusions of First-Time Human-Computer Interaction is ASM101**

1. Experienced computer users enjoy a mixed format (text, graphics, and video) more than new users who get easily intimidated by too much screen activity. Experienced users have more human-machine interaction.
2. Males are more likely alone face-to-face with computers than females, regardless their level of expertise. Females are more “experienced” users if they do so.
3. If a mixed couple is at a terminal, the male is more likely to have control (the mouse or typing) than the female who is usually asking questions and taking notes.
4. If a mixed couple are both “new” to computers, the control (mouse clicking) is more likely to be in the hands of the female, and the male is watching.
5. Once groups are defined (individual or small groups at terminals by learning style preferences), if another machine in the Information Commons becomes available, it will not be occupied by one of the students removing his/herself from a machine. Group boundaries are maintained.

NOTE: Results were compiled primarily from observation during one 50-minute course period. I was able to observe students at other times that I was in the Information Commons, and conclusions were much the same.



## REFLECTIONS ON THE SAPIR-WHORF HYPOTHESIS

### BASIC PREMISES OF THE ARGUMENT

--Words and grammatical structure shape reality

--Language may be shaped by the world, but it in turn shapes the world

--People can think about only those things that their language can describe or express. Without the words or structures with which to articulate a concept, that concept will not occur. Also, if a language is rich in ways to express certain sorts of ideas, then the speakers of that language will habitually think along those linguistic paths.

### SUPPORTING EVIDENCE

--Color studies. People are more likely to be able to identify a particular hue if their language has a name for such a color.

--Snow. Inuit categorizations beyond English. World perception shaped by the number of terms for the word "snow."

### CONTRARY EVIDENCE

--What about concepts where a language does not have a word for a concept or the speaker cannot think of one? The person has the option of borrowing a word from another language (which can be said to be "education dependent") or creating a new word to express the concept.

--The Hopi, like many Native American peoples, do not view time in a linear fashion, but is this truly due to their language or are the meanings actually deep-seated culturally?

--Part of the argument for the Sapir-Whorf hypothesis is that Hopis are not concerned with when a particular task will be completed. There are actually cultural reasons for this. Many Native American groups are not concerned with the completion of a task, but rather emphasize the processual aspects of their work. It is the act of "doing" and not "completing" that bring meaning to the work. This can be taken a step further by the non-competitiveness of certain cultures, or the stress on group rather than the individual.

--Words for "snow" by the Inuit as researched by Franz Boas. While originally intended to show that languages such as English can't perceive the subtle differences in snow that the Inuit are capable of identifying, some believe that just because we don't have a word to describe them doesn't mean we don't recognize a perceptual difference.

--Whorf states "...on the contrary, the world is presented in a kaleidoscopic flux of impressions which has to be organized by our minds--and this means largely by the linguistic systems in our minds." Note that the wording does not indicate an absolute.

### THE BOTTOM LINE

--Different languages may not produce different World Views, but they do influence people's thinking, at least to a limited degree.

## SIMULATION ENHANCEMENTS

In order to effectively implement the "anthropological linguistics" simulation, I recommend the following enhancements to the program:

1. Where there are "reflection question" sections, there should be text windows to allow students to record their responses to the questions. These can either be stored in a text file or e-mailed directly to the course instructor.
2. There should be the addition of a page which allows student evaluation of the program and comments on ways in which it might be improved.
3. Sound file examples need to be added. These are indicated by "sound.au" A HREF links in the text (language acquisition area) and / or brackets that state [insert clickable sound file here]. They are self explanatory. Many are already referenced in the HTML texts with names, though no sound file may exist in the directory.
4. The clickable imagemaps are currently non-functional. These include the files "eurotree.jpg", "worldnew.jpg", "westhem2.jpg", and "usmap2.jpg" images referenced in the "hist1.html" file. These files need to have imagemaps created with Webmap to allow point and click on different colored areas, indicating language families or dialects.
5. Quicktime videos, while not a high priority, would be a nice addition to the Sociolinguistics section to illustrate cultural differences in nonverbal communication. At this point, only pictures are used.
6. An animated brain that "flashes" in areas of broca's or wernicke's areas for examples of language organization and aphasias could better enhance this section.
7. The Sapir-Whorf hypothesis under language semantics could use more cultural examples of language than I have listed.
8. The introduction "index.html" file for the simulation would benefit from better organization. Perhaps addition of scrolling text and sound would improve the title screen. The organization of the advertisement (intro.html), disclaimer (intro2.html), and the introduction (langintro.html) on the title page (index.html) are a little confusing. It would be nice if these could be put together on a separate title screen (automatically load?) before you get to the clickable language tree that starts the simulation.
9. The language syntax excercises need to be completed. The screen layout is enclosed with the packet, but as yet there are no written texts or spoken sentences for the phrase "The big red balloon" in many of the languages.

10. The layout of big text files like "hist1.html" would benefit from being broken into a series of smaller HTML files. There's too much information in that one file for the number of reference jumps that need to occur.
11. The "applied.html" file should have a section where men say a statement and women say a statement and students are asked to evaluate their impressions of the statement based on their gender expectations. e.g. Would it sound "effeminate" if a man were to say "That's a cute outfit." vs. "That's a nice outfit" or viceversa for women?
12. The language change section of the "hist1.html" file where BEV and ChE are mentioned can be enhanced by adding sound clips where African Americans speak BEV vs. Whites and the student is asked to identify whether the speaker is black or white. The same can occur for Chicano English. Students are asked for their perceptions of why they made their choices. They may even be asked what they think the speaker's culture is like. Pictures / identities are not revealed until *after* the sound clips are played and answers made to the questions. These questions can facilitate classroom discussion or individual critical thinking skills.
13. Some images need to be shrunk and resized, such as "eurotree.jpg," so they will fit on the screen without having to be scrolled around.
14. A link between the Sapir-Whorf hypothesis and the geographic areas of cultures and language families needs to be established so that students can relate why cultures such as the Inuit have so many words for "snow" or pygmies for "green." i.e. a hypertext link between "semantics.html" and the language mapping section of "hist1.html"
15. Primate language studies and the Sapir-Whorf sections are not complete. They are only outlined on the diagram and documented by content scripts. i.e. the HTML scripts are not written through images and preliminary texts exist.

If there are any complications with the program or any of its text files, I can be reached via the e-mail addresses attached to the introduction of the simulation. I can also be contacted at the following address until the end of December 1995:

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