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CULTURAL DISCONTINUITIES BETWEEN WEST AFRICAN

ADULT LEARNERS AND PRINT-BASED DISTANCE

INSTRUCTIONAL MATERIALS

A Dissertation

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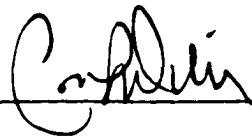
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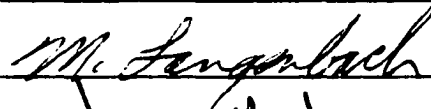
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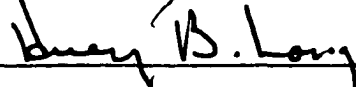
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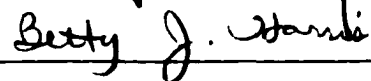
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VII

CULTURAL DISCONTINUITIES BETWEEN WEST AFRICAN ADULT

LEARNERS AND PRINT-BASED DISTANCE INSTRUCTIONAL

MATERIALS

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ABSTRACT

Educational advances in technology and communication have made possible delivery of instruction to learners around the world. This adds another dimension to distance education: cultural distance.

The evidence suggests that collectively, cultural groups have distinct learning styles and modes or "cultural learning sets." When instructional formats produced in one culture don't complement the learning set of another, significant learning impediments may occur. Without direct interaction, instructors may not compensate for learner differences, especially if the instructional format is primarily print-based.

This research sought to illuminate the nature and degree of cultural discontinuities that occur in cross-cultural distance instruction.

VIII

It presents findings involving the interaction between American print-based distance materials and West African adult learners.

Vygotsky has provided broad theoretical underpinnings of the nature of the cross-cultural interface. Flowerdew and Miller posit four specific interface factors: learners' ethnic, local, academic and disciplinary cultures. Tharp's psycho-cultural variables theory includes social organization of the instruction/learning event, sociolinguistic factors, cognitive processes and learner motivation. All suggest a basis for interpreting the interface between teacher and learner.

Instructional materials used in the students' extension program were evaluated for instructional format. Interviews and think-aloud protocols with West African extension students, and interviews with instructors and administrators provided the data. Interviews examined student motivation, experiences in learning to read, and insights into cultural discontinuities in instructional texts. Interviews with teachers and administrators focused on their observations of student behavior and cultural discontinuities in the classroom. The protocols investigated students' cognitive processes in reading French texts and cultural factors that influenced the students' construction of meaning.

Findings suggest that cultural discontinuities in print materials occur in four areas. These areas include differences in the world views

between authors and learners, culturally specific knowledge, linguistic factors and cognitive organization associated with the largely oral nature of many cultures found in developing nations.

Aspects of instructional intervention may include increasing instructor's knowledge of significant aspects of learners' worldview, augmenting background information needed by students, activities to promote the learning of needed cognitive processes and text modifications compatible with the target learners' reading characteristics.

Cultural Discontinuities Between West African Adult Learners and

Print-based Distance Education Instructional Materials

Chapter 1

Introduction

The "distance" in distance education has, from its inception,

denoted the separation in distance and/or time of the instructor

and learner. Increasingly, however, it is coming to also signify a

third dimension, that of cultural distance (Matthewson, 1994, p.

37). At one time education occurred in local classrooms that were

largely monocultural settings. The limited spheres of

communication within those settings also meant limited cross-

cultural interaction. Advances in technology and communications

of recent decades, however, coupled with the rapidly increasing

internationalization of business, transportation and education

have made possible the development and delivery of instruction to

learners almost everywhere in the world, however. International

and cultural boundaries no longer limit the availability of

knowledge and skills to only a few people on the planet. But this

growing cross-cultural interface between instruction and attendant

learning raises questions about learning efficacy in distance

contexts.

The purpose of this study is to examine some aspects of such interfaces, in particular the interaction between West Africans and American generated distance materials. It seeks to illuminate the nature and degree of compatibility between a particular group of adult learners and the instruction they receive through printed texts used in an extension program.

Problem Statement

Rogers (1990, p.14) suggests that "each culture has its own preferred learning styles, modes, and groupings" or what the author of this study calls a "cultural learning set." A mismatch between instruction and such sets is sometimes termed a cultural discontinuity (Allen & Boykin, 1994). The effects of such discontinuities and the implications for classroom instruction have been studied extensively (Allen & Boykin, 1992; Ladson-Billings, 1995; Rhodes, 1989; Tharp, 1989, 1993).

Instruction in print based distance programs presents a different situation from that of the typical classroom, however. Instead of a direct interaction between student and teacher, the interaction occurs between the learner and the printed page. This is significant because, whereas an instructor using interactive media can compensate to some degree for cultural discontinuities,

print materials utilize a fixed presentation format. If the format does not complement the cultural learning set of the learner then significant impediments to learning may occur.

To date, studies of cultural learning set and discontinuities have centered largely on public school classrooms or instruction in English as a Second Language (; Atkinson & Ramanathan, 1995, Gu, 1994; Hinkel, 1992 Pratt, 1990). Little or no research has focused on the significance of the format of instructional materials as they relate to cross-cultural distance instruction and learning. If discontinuities exist in the face-to-face teacher-learner formats, it would appear that similar or greater problems might characterize distance education. Given the number of other-cultural students in distance programs, the importance of the question looms large.

Significance of the Study

The tremendous advantages and potential of distance forms of instructional delivery have produced a veritable explosion of programs around the globe. In their massive, international-scale study of distance programs, Graff and Holmberg (1988) identified some 1640 distance institutions. The programs are produced in dozens of languages and involve as many as 2,000,000 students. Because many private programs were not surveyed, the actual numbers of distance programs and attendant students may have

been considerably higher. In the intervening years since 1988 such programs have probably multiplied.

Many developing countries, with huge numbers of illiterate and poorly educated citizens, perceive distance education programs as an important solution to pressing educational problems (Dodds & Youngman, 1994; Magnus, 1991a). John Kaboré, UNESCO Director for Cooperation with African Member States, addressed the issue at the Pan-African Seminar on Distance Education.

> The transformation of Africa involves the complete
> renovation of its education systems, both in-school and
> out-of-school. ... We must find encouragement in the
> coming days in the fact that distance education in Africa
> is not in its infancy and that we can base our analyses
> and reflections on numerous positive and fruitful
> experiences. Our deliberations will enable us, I am
> sure, to make this modest meeting an important
> milestone in the renovation of African education.
> (UNESCO, pp. 36-37)

Unfortunately, as is so often the case, those with the greatest needs for renovation and progress have the fewest resources. As a result, developing countries wanting to initiate or expand distance programs must seek necessary material and human resources from the outside in the form of international aid. The focus of such cooperation involves a number of issues. In the Pan African conference mentioned above, eight such issues were identified,

one of which, instructional materials, seems pertinent to this study.

For the foreseeable future developing countries will continue to depend heavily on external sources for research and development of distance education. In doing so they inevitably invite the difficulties of cross-cultural interaction. To date, the analysis of these difficulties has largely centered on macro aspects of the problem, such as the effects of technology and the role of distance education as a change agent (Gachuhi & Matiru, 1989; Mazura et al, 1987; McIsaac, 1989, 1993). Little research has been directed at micro-aspects such as the interface between instructional materials developed in one cultural context and learners from another.

The significance of this study lies in the fact that it represents fundamental research in both practical and theoretical aspects of the growing area of cross-cultural distance instruction. From a practical perspective this research is needed to address cultural mismatches between learners and print based instruction. Once established, the nature of these discontinuities can then be established and corresponding adjustments made in instructional design. The study is significant from a theoretical perspective because it contributes to our understanding of instruction and

learning in a cross-cultural context. In particular it informs thought on how non-westerners process print media produced in a western culture.

Research Questions

This study investigates the nature of the interface between instruction in a set of Western print-based distance education materials and learning carried out by a group of West African adult learners. The study seeks answers to the following questions and to propose an explanation of the interaction of the materials and learners.

1. Is there evidence to suggest that cultural discontinuities exist between West African learners and American designed, print based distance education instructional materials? If there is evidence, what forms do these discontinuities take and what is the nature of the learners' reactions to them?

2. What kind of cognitive strategies do West African learners employ when using American designed materials?

3. What are the learners' reasons for participating and persisting in the learning experience? Do cultural

discontinuities exist in motivational strategies embodied in the design of the printed materials? What forms do they take?

Definitions

The following terms are used in this document:

1. Culture - "A shared background (for example, national, ethnic, religious) resulting from a common language and communication style, customs, beliefs, attitudes, and values" (Levine & Adelman, 1993, p xvii). For the purposes of this study, *knowledge base* and *cognitive processes* should also be added to the list of commonalties. It should be noted that current use of the term "culture" is often much broader and often encompasses concepts that might, in another framework be termed *subcultural.*

2. Cross cultural - Involving or having to do with interactions between people of different cultures.

3. Cultural discontinuity - a lack of contextual match between the conditions of learning and a learner's socio-cultural experiences (Allen & Boykin, 1992, p. 587). The degree of match directly affects the degree of facilitation or hindrance of learning.

4. Theological education - While it could be applied to a number of religions, in this document the term means a course of study designed to educate people in the knowledge, practices, attitudes and skills needed for leadership in Christian organizations.

5. Strategies are cognitive processes used by a learner to understand information and to construct meaning from it.

6. Motivational strategies in instructional materials are format and design elements that, "...arouse the student's interest and provide the motivation that will enable them to proceed through the course with only the small amount of direct contact that is able to be offered them" (Meacham & Evans, p. 49).

Chapter 2

Related Literature

Introduction

Do people of one culture think like those of another? Do Kiowas learn in fundamentally different ways than Chinese? These kinds of questions have probably been asked since the first time members of one ethnicity encountered another. In response to questions like this, a number of people, most of them anthropologists, have posed theoretical frameworks for answering the question. In the past these frameworks were frequently referred to as "modes of thought" and have sought to describe the nature of other-culture psychology. More recently the term has been replaced by "Cross-cultural psychology." This chapter examines literature relating to the field with a focus on those aspects that have application to distance education. In particular the chapter will review:

1. A brief history of thought and research in cross-cultural psychology.

2. Two models of cross-cultural instructional interaction:

a) Flowerdew and Miller's Four Dimensions of Culture in

L2 (second language) Lectures

b) Tharp's Psychocultural Variables.

3. Current research in cross-cultural distance education.

A Brief History of Thought and Research in Cross-cultural Psychology

Late in the last century, anthropology as a science separated itself from the biological study of man and focused on "the study of 'primitive' or 'savage' or 'early' man" (Kuper, 1983. p. 2). Informed by Darwinianism, Pelissier, (1991, p. 77) traces subsequent developments in this line of thinking. She suggests that, highly influenced by Darwinianism, the school of evolutionary functionalism supposed that cultures evolve through stages with social and mental developments paralleling and reinforcing each other through a kind of feedback mechanism. Such development was known as "social evolution." According to her (p.77), Tylor proposed that all cultures could be classified as "savage", "barbarian", and "civilized" and Morgan further refined the first two into lower, middle, and upper. This position assumed a superiority on the part of Western civilizations and a "deficiency or irrationality" on the part of the other.

Cazeneuve (1967), notes that The French sociologist Levy-

Bruhl opposed the concept of social evolution, arguing that cultures

are not inferior or superior, merely different. He proposed instead a

"great divide" theory elaborating upon "primitive" and "civilized"

mentalities. Cazeneuve notes that,

> "For him (Levy-Bruhl) primitive man isn't a man who reasons
> badly; he's just someone who reasons in another manner than
> we. They (other cultures) have different mentalities, the most
> greatly opposite being those of primitive peoples and those of
> civilized peoples" (p.94)[1].

According to Pelissier, Levy-Bruhl argued that

> ...'primitive' mentality was both mystical and pre-logical,
> meaning that ideas and images are not separated from the
> emotions that they invoke, and that connections are made
> between phenomena that "civilized" mentality separates, such
> as animate and inanimate objects. At the most fundamental
> level, the, "primitive" mentality is oriented in another
> direction than our own (p. 77).

One of the chief opponents of Levy-Bruhl's position was the

American anthropologist Franz Boaz, who argued "...against both

evolutionism and the equation of race and culture, culture and

thought" (Pelissier, p. 77). Specifically, Boaz attacked Levy-Bruhl

on two points, 1) that one could not infer specific individual

cognition or other mental function from the beliefs of a group, and

2) that ethnocentrism produces misunderstandings, and ultimately, false claims about other cultures. Boaz went on to dispute four notions about "primitives" that were in vogue at the time:

1. Primitives could not control their emotions.

2. Primitives suffered from short attention spans.

3. Primitives could not think logically.

4. Primitives demonstrated a lack of originality.

Boaz argued that, in fact, human intelligence was universal and that cultures had to be studied relative to themselves rather than compared with others in large theoretical frameworks (Pelissier, p. 77).

Levy-Strauss (1962), also rejected the notion of "primitive" and "civilized" mentalities, proposing rather that the various thought modes found among societies represented efforts to make rational sense of nature.

> The thought we call primitive is founded on this demand for order. This is equally true of all thought but it is through the properties of all thought that we can begin to understand forms of thought which seem very strange to us (p. 10).

In his thinking some societies employ generic, concrete kinds of cognitive "tools" that can be used to think about various situations

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[1] This author's translation of the French text.

while others may use highly specialized cognitive processes, (such as calculus for example) to determine an order and understanding of nature.

The "great divide" mentality, though modified, is still alive and has continued to influence cross-cultural studies of cognitive processes. Many researchers have asked if members of another culture have a capacity for abstract thought, and the ability to generalize across contexts. Categories of these processes have been refined to include classification, concept formation, memory, and recall, discrimination, logical problem solving, and transfer (Pelissier, p. 79). In general, while the methodologies of studying cognitive processes cross-culturally have changed, subtle undercurrents of comparison between "them" and "us" often remain.

The American linguist Whorf (1956) asked questions similar to those of earlier anthropologists about the nature of other-culture psychologies. He also argued that linguistics could answer the questions because of the strong relationship of language to rational or cognitive processes. "Language thus should be able to analyze some, if probably not all, of the differences, real or assumed, between the mentality of so-called primitive people and modern civilized man" (p. 79).

Although Whorf recognized a cognitive difference between preliterate and modern peoples, he did not use the terms to imply superiority of one over the other. Instead his writings show the beginnings of modern research that examines cultures from within their particular context, realizing that many comparisons are somewhat pointless.

> From this point of view many preliterate ("primitive")
> communities, far from being subrational, may show
> the human mind functioning on a higher and more
> complex plane of rationality than among civilized
> men. We do not know that civilization is
> synonymous with rationality. These primitive tribes
> may simply have lacked a philosopher, the existence
> of whom may depend on an economic prosperity that
> few cultures in the course of history have reached.
> (p. 81)

One of the most important conclusions of Whorf and Sapir was that language determines or perhaps more correctly, highly constrains and influences thought. This is known as the Whorf-Sapir Hypothesis. As Whorf explains:

> This study shows that the forms of a person's
> thought are controlled by inexorable laws of
> patterns of which he is unconscious. These
> patterns are the unperceived intricate
> systematizations of his own language - shown
> readily enough by a candid comparison and contrast

with other languages, especially those of a different
linguistic family. His thinking itself is in a language
- in English, in Sanskrit, in Chinese. And every
language is a vast pattern-system, different from
others, in which are culturally ordained the forms
and categories by which the personality not only
communicates, but also analyzes nature, notices or
neglects types of relations and phenomena,
channels his reasoning, and builds the house of his
consciousness. (1956, p. 252)

In this statement, Whorf posits a cultural universal: that

language is a highly pervasive shaper of cognitive processes and

that different languages produce different modes of cognitive

activities and perspectives. This, in turn, strongly implies that

communication (and thus instruction/learning events) may be

subject to cultural mismatches.

As can be seen in Whorf's ideas, questions about how people

of different cultural backgrounds think are extremely complex. As

Ratner (1991) has noted, "The question of the universality of

psychological processes is one of the most fundamental

controversies in the field of psychology" (p.282). Complex though

the question may be, it is very pertinent to the problem addressed

by this study.

Fortunately, the study of cross-cultural psychology has

increased in recent years and the emphasis, for the most part, has

moved away from the "us-them" perspective to one of investigating

behavior within a given cultural setting. Increasingly, investigators

have been concerned with the nature and role of cognitive

processes within cultures and have sought to investigate cognitive

processes utilized within a given cultural setting. As Segall (1986)

notes:

> The dominant emphasis in cross-cultural psychology
>
> accordingly has become ecological, whereby cultural recipes for
>
> behaviors are seen as cumulatively selected for their adaptive
>
> character and transmitted intergenerationally by social means
>
> as well as by genetic adaptation (both processes, social and
>
> biological, are blind and nonprescient) (p. 537).

An example of an element of such cultural recipes is

cognitive competence, the capacity to utilize culturally specific

cognitive processes in a given societal setting.

Cognitive competence represents just one of a number of

psycho-cultural elements that develop within individuals in a given

society. Tharp refers to all such psychological processes and

factors that impact learning and instruction as psychocultural

variables; i.e., "the psychocultural teaching and learning

processes-developed in the culture of the home and community-

[that] are deeply implicated in the teaching and learning of the

literate and cognitive capacities that are central to the purposes of schooling" (p. 349).

Thus, learners in a given culture acquire a set of psychocultural variables that they bring to any learning event, variables that affect the perception and processing of the information involved in the learning task. In any learning situation, what learners select as pertinent, how they interpret it, and how they process it is influenced to a great extent by the "cultural learning set" they possess.

Two Models of Cross-cultural Instructional Interaction

Luria and Vygotsky's theories suggest that cultural variables, especially cognitive ones, are often highly culture-specific (van de Veer, 1994, pp. 46-72). Perhaps the most obvious case is language that is absolutely necessary for inclusion in a given culture, and the lack of which means virtual exclusion. Some processes, most likely biological in origin, such as memory, schema formation, and logical thinking, are probably universal (Blonder, 1991). The majority however, are mediating signs and tools, learned within a specific cultural environment. These variables have important implications for cross-cultural educators. As Smagorinsky notes:

Psychological tools provide the means through which an individual internalizes the higher mental processes central to social transactions in particular cultures...

These tools take on value according to the types of
problems presented to societies by their environments,
and the way in which members of the societies have
learned to solve those problems. Mediational tools not
only abet the development of higher mental processes,
but are themselves a fundamental part of those
processes. Social transactions are necessarily mediated
by some sort of cultural tool, such as speech, that
follows specific social conventions. These cultural or
psychological tools themselves are central to human
thought and development; they are the means through
which children internalize cultural knowledge and
exercise their own mentation. Because these tools are
central to thinking and are social in origin, they are
necessarily part of culturally rooted cognitive
development. (p. 207)

In brief, cultural environment shapes the way in which people

learn. When two cultures are significantly different, then factors

within the two that bear upon instruction and learning may not

correspond across the cultural interface. Thus educators must

deal with two important questions:

1. Which factors come into play in cross-cultural instructional
   interaction?

2. What is their relationship to the instruction/learning
   event?

Theoretical frameworks or models concerning cross-cultural

instructional interfaces are extremely sparse in the literature, apparently only being represented by three writings, (Flowerdew & Miller, 1995, Ladson-Billings, 1995, Tharp, 1989, 1993). While Ladson-Billing's writing suggests a possible model they deal more with a description of effective cross-cultural teachers. The other two models, although not completely developed theories, provide useful frameworks for considering cross-cultural aspects of instruction and learning.

Flowerdew and Miller's Cultural Elements in L2 Lectures

The interaction between American, British, and Australian lecturers and Hong Kong Chinese students was the subject of a three year ethnographic study carried out by Flowerdew and Miller (1995). Analysis of the data led them to propose a four-element framework for analyzing second language (L2) lectures and determining the points of discontinuity.

Ethnic culture. The first of these elements, ethnic culture, is defined as "social-psychological features which affect the behavior of students and which may contrast with the social-psychological make-up of Western lecturers" (p. 356). For Hong Kong Chinese, their Confucian heritage was the most obvious example of ethnic culture. This heritage embodies high values for family, filial piety and respect for elders. This was seen in the great respect and

deference accorded teachers and the fact that undergraduate students would never question grades.

Another aspect of this valuing of teachers was expressed by students' reluctance to express opinions, "even when asked." This was a pertinent point because most Western professors preferred an active verbal interaction with students. The strong reluctance to express opinions may also spring from the Chinese (and generally Asian value) for saving face. Face is maintained by not giving a wrong answer or by not showing one's weakness in speaking English.

A final expression of ethnic culture that is pertinent to educators is that of motivation. Flowerdew and Miller note that Chinese students have "a high level of achievement motivation" and that "although secondary school and university students have little integrative motivation toward the study of English, their instrumental motivation for learning English for academic and career purposes is very high" (p. 358). Lecturers expressed disappointment in this, wishing that students were more "motivated by a genuine desire to learn and to discover things about themselves and the world around them" (p.359).

Local culture. The second element in the Flowerdew and Miller framework is that of local culture. By this term they mean

"aspects of a local setting with which the members of a particular society are familiar" (p. 359). In the Hong Kong University setting this element primarily involved the use of local examples by lecturers in elucidating concepts presented in their teaching. Lack of use of local examples produced reactions in students such as, "Usually he (the lecturer) takes examples from U. K. and sometimes I don't understand because I am not familiar with U. K. housing. Because he is British he is familiar with the U. K. situation but not Hong Kong " (p. 360). Some lecturers tried to compensate for this by finding pertinent examples in local media and by encouraging students to provide others from their own knowledge.

Academic culture. Flowerdew and Miller call the third dynamic of their framework academic culture. They use the term to mean "those features of the lecture situation which require an understanding of the particular academic values, roles, assumptions, attitudes, patterns of behavior, and so on" (p. 362). It is assumed that the values, roles, etc. refer to the academic discipline that is the subject of the lecture. They go on to note that academic culture is situated at a number of levels: (a) within a group of countries (European nations for example), (b) at a national level, (c) within a group of institutions, (d) in a given country, or (e) within

a particular institution. In the Hong Kong Chinese setting, four

features of academic culture come into play.

The first of these involves memorization as a primary cognitive

learning strategy. Becoming literate, from kindergarten age,

involves the memorization of thousands of Chinese written

characters and children are given

> ...lengthy classroom and homework assignments involving the
>
> intensive rote learning of characters. It is not surprising that,
>
> as a result of this training, Chinese students have highly
>
> developed memorization skills which they carry over to other
>
> learning tasks in the primary and secondary school and which
>
> students expect to continue to use at the university level (p.
>
> 362).

Flowerdew and Miller also conclude that this dominant

strategy coupled with large classes and the Confucian value for

deference to teachers combine to produce an avoidance of

significant amounts of classroom interaction with teachers. This

is further compounded by the necessity of using a second language

as a learning tool, the second feature of academic culture.

Another feature of Hong Kong Chinese academic culture is

"the propensity of students to help each other" (p. 363). This is

seen in the continual conversations that occur between and among

students during each lecture. Students are observed constantly explaining the lectures to those with less English proficiency or writing Cantonese glosses on a fellow student's lecture outline. In Flowerdew's and Miller's opinion, this stems from both the general avoidance of discussion with teachers and the Chinese "collectivist approach to social interaction" (p. 363).

The fourth feature involves the question of original thought. Interviews with lecturers in the study revealed frustration because of a lack of creativity on the part of students. As one teacher observed:

> The main problem I find is if my ideas don't feature in a
> standard textbook, then the students seem to be lost for
> a point of reference... I try to encourage them to do the
> thinking and analyzing but at best they will only do this
> after I have shown them how to do it once. (p. 363)

Lecturers observed that students needed to exercise skills involving analysis, synthesis, evaluation and creativity to achieve the objectives presented in the courses but voiced the concern that such objectives were not being met. Similarly, an external examiner's report "found many of the answers given in examinations and course-work assignments to be rigid and lacking in critical and original thought" (p. 365).

Flowerdew and Miller maintain that this phenomenon

represents the fact that Chinese teachers are viewed as authorities who are not to be questioned and that students may see assignments as exercises in reflecting on the teacher's thought rather than presenting their own.

Disciplinary culture. Flowerdew and Miller define disciplinary culture as "the theories, concepts, norms, terms, and so on of a particular academic discipline" (p. 366). Note that in this example the term *culture* describes something other than an *ethnic* culture. Flowerdew and Millers' term means something closer to a particular ethnolinguistic culture's expression of a given discipline. Thus, law for instance, while a discipline common to both American and Japanese cultures, uses different theories, concepts, and norms that are expressions of those two cultures.

One of the most common aspects of disciplinary cultures is the specialized vocabulary associated them. In cases where learners employ a second language such terms represent a significant learning task, one not always recognized by teachers. Indeed some of the lecturers in this investigation felt it was not within their role or capability to explain such terminology.

The structure of lectures is also a part of disciplinary culture. By their nature, the content of various disciplines shapes elements in the way lectures are presented. Flowerdew and Miller

noted that law lectures were often built around problem-solving tasks aimed at illustrating a legal concept. Computer science lectures utilized repeated patterns of problem-solution examples, and material in economics was often presented as a series of related concepts. Thus the other-cultural student is faced not only with learning lecture structures related to various disciplines but must also cope with the discourse features of the English language. The authors point out that while research on expository discourse structure has been done since the 1960's, no one has addressed the question of cross-cultural variation in lecture discourse structure (i. e., linguistic structures) and the potential for discontinuities.

Flowerdew and Miller draw a number of conclusions from their study. One is that their model may be useful to researchers and educators in other fields that involve oral instruction across cultural boundaries. A second conclusion was that lecturers profited from a heightened awareness of the cultural factors involved in their lectures by working to compensate for them. The most important point reached, however, was the realization that "there is a dearth of information as to the cross-cultural aspects of lectures which can assist Western lecturers in teaching non-Western students" (p. 370).

A chart of the Flowerdew-Miller model is shown in Figure 1.

Ethnic Culture	Local Culture	Academic Culture	Disciplinary Culture
• Social-psychological contrasts	• Physical environment	• Academic values • Assumptions	• The ethno-linguistic expression of a discipline
• Sociolinguistic elements	• Academic roles	• Attitudes	• Involves specialized vocabulary
• Nature of motivation	• Patterns of behavior		• Lecture organization

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↕

LEARNER

Ethnic Culture	Local Culture	Academic Culture	Disciplinary Culture
• Social-psychological contrasts	• Physical environment	• Academic values • Assumptions	• The ethno-linguistic expression of a discipline
• Sociolinguistic elements	• Academic roles	• Attitudes	• Involves specialized vocabulary
• Nature of motivation	• Patterns of behavior		• Lecture organization

Figure 1

Flowerdew – Miller Model

Tharp's Psychocultural Variables

Tharp's model springs from the work of a number of researchers on a hypothesis known as cultural compatibility. Tharp argues that, "when instruction is compatible with natal-culture patterns, improvements in learning, including basic skills, can be expected" (1989, p. 350). He identifies three forms of the hypothesis, the *strong* or *culturally specific* form, the *two-type* form, and the *null* form.

The strong form holds that "the most effective classrooms for different cultures will be discernibly different and specific to cultures" (p. 350). The two-type form maintains that, in broad terms, there are basically only two types of cultures and that two kinds of classroom will suffice to provide effective education. The first of these is the majority culture and any minority cultures that are successful in the majority classroom. The second type "includes those cultures whose students typically experience problems in schools, who are by and large less industrialized, urbanized, and/or westernized, and who thus share crucial incompatibilities with school" (p. 350).

The null (or universalistic) form of the hypothesis argues that differences in cultures are largely "cosmetic" and that "effective educational programs can look much the same in all cultures" (p.

350). Tharp notes that this last is a hypothesis that no educational theorist actually advocates. Instead it is a kind of default position that most schools take simply because they do not alter programs on the basis of student culture.

Tharp builds his framework on work done in a number of culturally different classroom contexts. He also draws data from the Kamehameha Early Education Program (KEEP) at the University of Hawaii. In addition, he cites work done with Anglo (Jordan, 1983, White & Tharp, 1988), Navajo (White & Tharp, 1988), Canadian-Indian (Erickson, 1977), and Pueblo children (Winterton, 1976) involving both culturally same and different instructors and instructional methods.

Tharp's analyses lead him to postulate that the nature of cross-cultural instruction interfaces can be described in terms of four main variables: (a) social organization, (b) sociolinguistics, (c) cognition, and (d) motivation.

Social organization. This variable involves factors that make "the organization of teaching, learning and performance compatible with the social structures in which students are most productive, engaged, and likely to learn" (1989, p. 350). An example is the typical North American classroom that emphasizes whole class instruction and often seats learners in "rank and file"

arrangements. Teachers explain lessons to the whole group in this setting. Tharp, drawing on research done by Gallimore, Boggs and Jordan (1974) and MacDonald and Gallimore (1971), notes that this system does not work well with Hawaiian children who tend to pay little attention to the teacher and classroom and who, instead, spend much time seeking attention from classmates. For them, arrangements into small, mixed gender groups of 4-5, high levels of student interaction and instructional conversations are a much more effective organization technique (Vogt, Jordan & Tharp, 1987). Tharp argues this arrangement derives in great part from Hawaiian family structure where children are taught to help each other and only infrequently seek assistance from adults (Jordan, 1983).

When the technique of letting children assist each other in classroom learning centers was attempted among Navajo children the results were somewhat different. While the children adopted the system quickly and worked well, they preferred to work alone. The contrast suggests that indeed culturally specific social organization is important in producing compatible learning environments. That is, the KEEP classroom learning center model was not just an educationally sound technique effective in any setting but rather one that complemented the cultural dynamics of learning in Hawaiian children.

Tharp also cites William's (1981) observations about African-

American students in Pittsburgh ghetto schools, noting

> ...students' intense and sensitive peer
> relationships, physical expressiveness, and
> skillful manipulations of the behavioral dynamics
> of their classrooms. The staging of impromptu
> 'dramas' designed to tease, test and sometimes
> intimidate teachers was a frequent technique. ...
> These skills are not developed in ghetto schools
> but are suppressed and interpreted as
> delinquency... Left undeveloped, these skills get
> more disruptive.. and can reach a level where
> they appear to be violent rebellions' (Williams,
> 1981, p. 204). Williams reported some successful
> instructional use of these skills by creating
> settings using group interaction and
> competitions. Front-of-the-class performances
> related to instruction goals, with the balance of
> the class attentive to discover errors that would
> allow them to replace the performers, were high
> motivation for individual 'performers' and
> 'audience' alike. (1989, p. 351)

Sociolinguistics. Sociolinguistics is concerned with social

aspects of language; i.e., who talks to whom, when one may talk,

how one addresses another, and other conventions and courtesies

of a culture. Tharp's framework focuses on three sociolinguistic

elements: (a) wait-times, (b) rhythm, and (c) participation

structures. He draws on Rowe (1974) for the conceptualization of two kinds of wait-time. "Wait-time I" refers to the amount of time teachers allow for a student to respond to a question and wait-time II to how much time a teacher takes after a student response before speaking again.

In subsequent research, White and Tharp (1988) found that the wait-time II of Navajo teachers was significantly longer than that of an Anglo teacher instructing the same class of Navajo children. Anglo teachers often interpreted students' pauses in responding as completion and so interrupted the child's answer. Winterton (1977) reported Pueblo students participating verbally twice as frequently in long wait-time situations as in short, while Leacock (1976) indicated that Native-American college students reported difficulty with seminar interactions in short wait-time situations.

Rhythm involves rhythmic patterns in "the presentation of materials, in the voice inflections and vocalization tempo on the parts of both teacher and student, and even in the pace and efficiency of movement about the room" (1989, p. 351). This was first observed in Indian classrooms, but Hale (in Tharp, 1989) also reported similar elements in classrooms made up predominantly of African-American children.

Participation structures involve cultural protocols that determine the character of participation in learning situations. Erickson and Mchatt (1977) describe it as "...interactional (or communicational) etiquette in the classrooms -- the sets of standards that the teacher and students have for appropriate, expectable, and routinely interpretable ways of acting toward one another" (p.2). Tharp notes that instructional conversations with Navajo children involve somewhat long discourses by each child circling around a particular subject. This behavior contrasts sharply with Hawaiian children, who exhibit lively, rapid-fire mutual participatory styles of conversations (Au & Mason 1981). These markedly different styles of linguistic exchange are examples of participation structures.

Tharp remarks that, "When sociolinguistic school/home compatabilities are present, children are more comfortable, participate, and display their abilities appropriately" (p. 352). He cites as evidence Lein's (1975) study of Black migrant children who are viewed in school as "...below grade level and unresponsive but who speak and behave with complexity and competence in home settings" (p. 352), and Greenbaum and Greenbaum's (1983) findings that many Indian culture children exhibit unwillingness to respond in classroom communication settings that use

"switchboard" patterns of interaction.

Although Tharp does not cite it, research by Hvitfeldt (1986) with adult Hmong ESL students supports this notion of a link between cultural communication/relationship patterns and classroom participation structures. The Hmong society and family are strongly collectivist and no one is independent. All family members are subject to the household authority and the notion of individual rights or privileges is only weakly present. As a result, Hmong students see achievement in personal terms but always as a result of group effort. "When individuals are praised by the teacher, they generally shake their heads and appear hesitant to be singled out as being more able than their peers" (p. 70). Similarly they constantly seek teacher direction and approval before carrying out even simple activities such as writing something on paper or deciding who will go first in a learning game. As Hvitfeldt notes, "This definition of teacher role has a major influence on classroom interaction..." (p. 71).

Cognition. Tharp's platform for considering cognitive aspects of cross-cultural instruction begins with the notion of patterns of cognitive functioning. He begins by assuming that schools and teaching practices are predicated on preferences for one pattern of thinking, such as verbal/analytic rather than visual/holistic.

These spring, in part, from the nature of socialization practices within a particular culture. This sounds similar to Vygotsky's idea of the development of mediating signs and tools in children as they cope with their cultural environment specific (van de Veer, 1994, pp. 46-72). Serpell (1993) details the cultural conceptualizations, practices, and expectations of children between Western and East African societies. He concludes that the sharp differences in the two account for the self-acknowledged failure of much of African education, which is rooted strongly in Western educational philosophy and practice. Tharp draws on the work of Stevenson et al. (1985) to conclude that the equal performance of Japanese-American, Chinese-American, and white American students in their study (as contrasted with the documented low performance of other minority children) is due to culturally compatible patterns of skills and cognitive functioning common to the cultures. While noting that the "...evidence is scattered and largely restricted to Native Americans..." (Tharp, 1989, p. 353), he posits that there exist entire information processing -learning complexes that represent a primary learning set for many cultures.

These complexes are not simply common cognitive tools such as inductive or deductive reasoning because they represent broader more fundamental patterns of information processing, such as

Whitkin's field dependent/independent hypothesis (Whitkin, et al,
1977). Tharp suggests that many of these processing-learning
complexes fall into the categories of verbal/analytic and
visual/holistic processing. In learning based on verbal/analytic
cognitive processing, learners may be given verbal or written
information then asked to recite or analyze parts of it. Such is
often the case in reading or history lessons. More complex
variations may involve construction of a meaningful whole through
identifying and selecting appropriate elements of a text or lecture.
As Tharp puts it, in verbal/analytical thinking, "the whole is
revealed through the unfolding of the sections" (1989, p.353).

Visual/holistic processing is associated with an entire
"observation-learning complex " of cultural socialization that
includes observing first and thus gaining competence before
performance, learning by doing rather than through verbal
instructions, a centrality of visual cognitive representational
structures, and a sociological pattern of children's involvement
with adult activities" (p. 353). Tharp adds that in some cultures
children are even discouraged from making verbal comments about
events such as traditional stories and are instead expected to
listen quietly to the whole telling.

Tharp argues that such broad informational processing sets

are common in many cultures and shape the way the world is perceived and knowledge of it formed and manipulated. This is reminiscent of the Whorf-Sapir language hypothesis that proposes that language constrains and shapes the nature of thought. A synthetic language, such as English, which strings relatively small grammatical units together to form a whole thought might tend to produce more analytical and synthetic processing. On the other hand, this researcher has remarked that Ewe, an African language of Ghana and Togo, is more event oriented. Thus, in Ewe, the action represented by the three English words "He saw me" is embodied in a single word/sentence encompassing the whole event. Indeed, interactions with Ewes suggest that in general they are more likely to focus on the whole of events and experiences rather than the details.

It seems logical that the cultural environment into which a child is born would profoundly shape not only his or her knowledge, values, and skills but also the fundamental cognitive platform from which he or she reaches out to acquire them. If such information-learning complexes do exist, then Tharp could be right in concluding that students from minority cultures who do not prosper in schools may be receiving instruction that is culturally incompatible with their primary cognitive processing patterns.

Motivation. Tharp conceives of two kinds of motivation, *trait* and *state*. He defines traits as being "relatively consistent, persistent, and supported by parental, community, and cultural reinforcement." He cites as an example the success of Hmong, Vietnamese, and Korean students in American schools and suggests that this is in part due to the high value placed on education, high expectations for school performance and the constant admonition to study held by families from these cultures (Hirayama, 1985) Similarly, Punjabi students in California (Gibson, 1986) are motivated to succeed in school for "the honor of themselves, their families, and the entire Punjabi community" (Tharp, 1989, p. 354). In addition, if they fail, they are likely to be withdrawn from school and put to work in the fields (Gibson, 1986).

Other cultural groups, however, place less value on achievement and more on family or peer-group solidarity. Such solidarity then becomes the context or basis for achievement. Despite this, many students from these cultures learn different motivations in school, such as competition and individual achievement. If they return to schools in their own culture, they often find difficulty readjusting to being deferent, compliant students. (Rivera-Medina, 1984)

State motivations are those variables that the school and

program designers plan and implement. They include the interest level and content of materials, techniques of reinforcement and punishment, and the nature of teacher relationships. This latter was seen in a study done by D'Amato (in Tharp, 1989) that showed that teachers who were "nice" and "tough" were the most effective with Hawaiian children. "Nice" and "tough" meant establishing close, nurturing relations with children while remaining "firm, clear, and consistent."

For Navajo children neither "nice" nor "tough" was effective (Vogt, Jordan & Tharp, 1987).

> Navajo adults are more reserved in their affectionate displays but are highly respectful of children's individuality and children's sovereignty over their own persons. Punishment, contingent reward, or any openly manipulative effort to control the behavior of others–including children–is a violation of cultural values. (1989, p. 354)

As a result, Navajo teachers "maintain high on-task rates, orderly rotations, and excellent compliance while moving through the classroom in what seems, by comparison with the Hawaiian classroom, virtual silence" (1989, p. 354).

Two constants for prescriptive pedagogy. Tharp argues that, while the four aforementioned factors vary considerably among cultures, two foundations must be established for developing effective cross-cultural learners. The first of these is consistent,

expanding language development. Because literacy is one of the primary goals of education and verbal instructions are so pervasive in public schools, he feels that it is imperative that all children in American schools master English. "Language development at all levels–vocabulary through syntax–must be a self-conscious and ubiquitous goal for the entire school day" (1989, p. 355).

Contextualization. Tharp's second constant is that "all instruction should be contextualized in the child's experience, previous knowledge, and schemata." As he notes, "Schools teach rules, abstractions, and verbal descriptions, and they teach *by means of* rules, abstractions and verbal descriptions. Many cultural communities do not" (1989, p. 355).

Tharp goes on to say that three levels of contextualization must be considered. The first, called the *technical* level, involves keeping children's schemata frequently invoked during presentation of material. The *curricular* level involves utilizing community-based experiences as the context in which "goals of literacy, numeracy, and science" are set and taught. The third level is the *policy* level. Advocates of this level argue for greater contextualization of schools themselves, using teachers drawn from the same culture as the students, and total local control of schools. Tharp maintains that "All levels of contextualization, by

anchoring in personal, community, and cultural meanings, appear to have this same felicitous, if paradoxical, effect." The effect is higher literacy achievement, pride, confidence and cultural identity. He also cites evidence that among Native Americans it leads to greater school achievement (Huffman, Still & Brokenleg in Tharp, 1989, p. 356).

This is not to say that Tharp advocates culturally isolated education where learners become stronger and stronger in the cognitive skills that predominate in their natal cultures. Instead, he argues that

> the ideal education in the coming century will surely be more balanced. The best current hypothesis suggests cultural compatibility for the introduction of skills but with opportunities to practice those new skills in activity settings that are not represented in the natal culture. (p. 357)

While he does not express it directly, Tharp seems to be arguing that instruction in any new skill should, as much as possible, be in harmony with the primary cultural learning set of the student. It would appear that, in his thinking, this should provide a more efficient and meaningful learning experience and help to avoid lapses of cultural continuity. He goes on to argue that once learned, such skills should be utilized in an ever widening set of experiences that might not normally be found in

the primary cultural setting of the learner.

The classic study by Cole, Glick, Gay, and Sharp (Harrington, 1979) of memory tasks among Kpele people in Liberia provides support for Tharp's argument. Adults asked to recall objects presented one after another (a practice essentially foreign to Kpele culture) performed poorly. When the objects were presented as "belonging" to various chairs in a set, recall improved markedly. The new skill, recalling groups of objects, was much more easily mastered in a culturally familiar context. However, such a skill might eventually be used in a more non-traditional Kpele activity such as taking orders in a restaurant or filling customer requests from a stockroom. In this case it would need to be practiced in situations that increasingly diverge from those of the primary cultural setting.

A model of Tharp's psycho-cultural variables is shown in Figure 2.
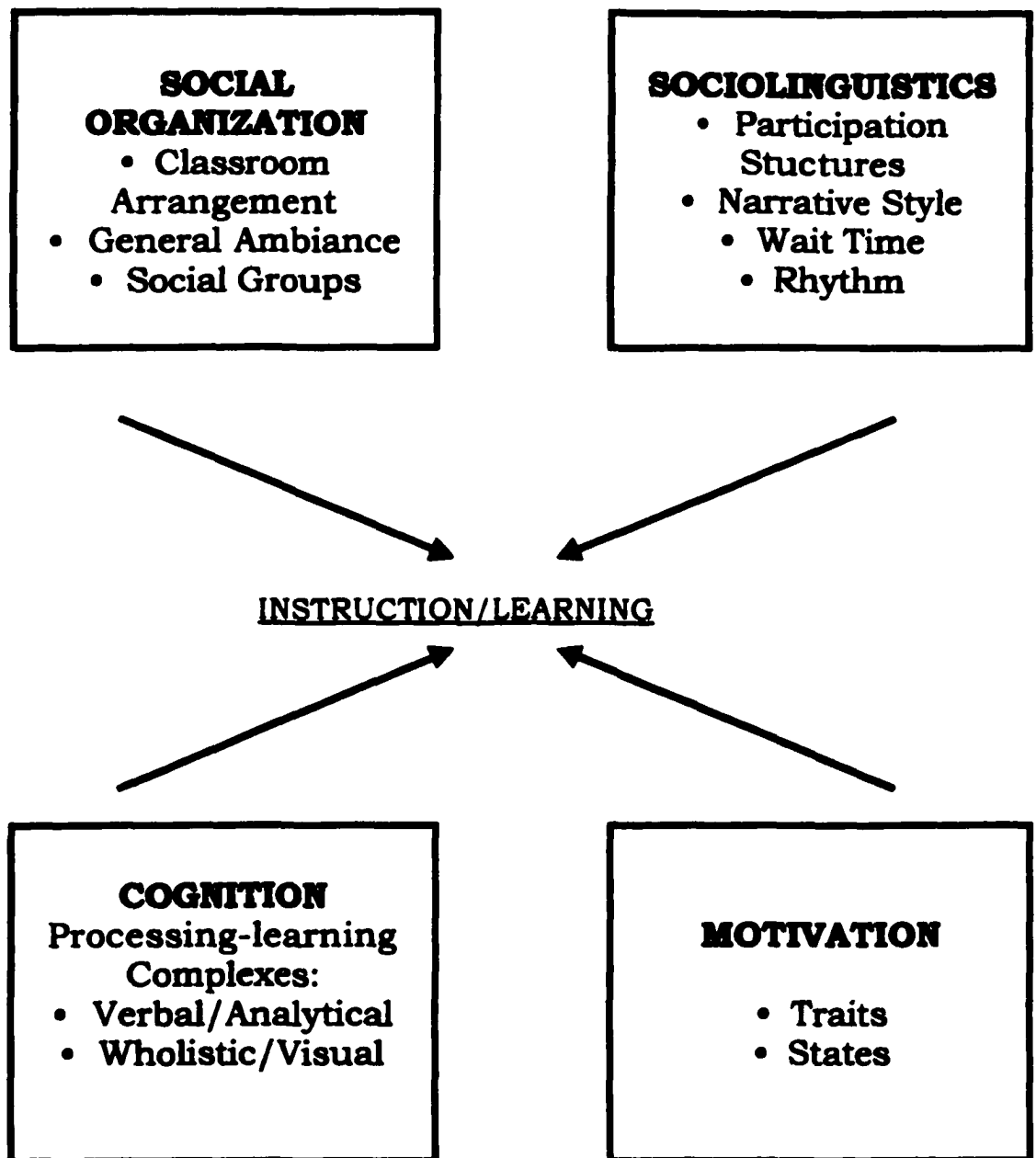
Figure 2

Tharp's Psycho-cultural Variables Model

The Flowerdew-Miller and Tharp hypotheses are based on in-depth research in cross-cultural contexts and posit observable discontinuities in cross-cultural instructional interfaces. These discontinuities seem to fall into five groupings:

1. Verbal interaction patterns

2. Contextualization of content and instruction

3. Differences in cognitive processing patterns

4. Social organization patterns in the classroom

5. Differences in motivation

The first of these is discontinuities in verbal interaction patterns. These often involve verbal cues (questions, instructions or prompts) on the part of the teacher that lack corresponding response forms in the learner. This may include reluctance or even refusal to respond to questions. Similarly the instructor may discover that students experience difficulty in discussing a topic in a classroom setting. Another mismatch was observed by professors in the Hong Kong University study when they found that much of the humor they used in lectures was simply not understood by the students. Finally, the area of cue and response problems involves students responding in an unexpected manner or in one that the instructor finds disconcerting (such as the simultaneous responses of Hawaii students).

A different aspect of interaction discontinuities involves factors associated with the use of a second language that can also produce interaction problems such as reluctance to express one's self in the "foreign" language. Whatever their nature, these kinds of discontinuities interrupt the flow of teaching/learning interactions and may block the intended objective of instruction.

A second area of discontinuity is that of contextualization of content and instruction. Most commonly, discontinuities arise when teachers use examples, experiences or methodologies drawn from their own cultural base. Likewise knowledge assumed in one culture might be different or lacking in another. When learners lack similar cultural experience they may feel puzzled, frustrated or simply find difficulty in learning.

The third area, differences in cognitive processing patterns, also gives rise to discontinuities. When instructional methodology assumes the presence in the learner of certain cognitive skills or patterns that are in fact not there, communication and learning are interrupted or its quality degraded.

For example, many traditional societies put little emphasis on mental activities such as categorizing, ordering or synthesizing concepts. Learning activities requiring these skills are certain to fail with learners from such cultures unless they are expressly

taught first. This was seen in the Flowerdew-Miller study when teachers experienced frustration in discovering that their students seemed almost totally uncreative in problem solving and unwilling to posit new ideas.

The Tharp research highlights a fourth area of discontinuity, that of social organization patterns in the classroom. The KEEP studies and Erickson's work with Canadian Indians make clear that the physical arrangement of the classroom and the way student/student and student/teacher interactions are structured have important relationships to the students' cultural framework and environment. Social organization is closely related to sociolinguistic behavior and it is possible to practice culturally compatible social organization while still having significant sociolinguistic discontinuities. The contrasting styles of teacher/student communication seen in the Erickson and Mchatt (1977) study highlight this.

While both classrooms were organized physically and socially in similar manners, the Native American teacher talked almost exclusively to either the whole class or small groups. He lowered his voice when talking to individuals or small groups, moved slowly and often corrected individuals by talking to the group as a whole, emphasizing appropriate behavior for all. The Anglo teacher often

addressed individuals across the room or singled them out in their small groups. He also talked much more loudly and initially tended to correct individuals directly.

Finally, both the Tharp and Flowerdew models raise issues concerning differences between the motivational assumptions embedded in a educational organization developed in one culture and those of learners coming from another one. The sharpest contrasts are between learning motivation centered around individualistic psychologies of personal success and satisfaction and collectivist ones based on responsibility to a larger group and one's contributions to it. This latter is perhaps most highlighted in the Hvitfeldt (1986) study.

Research in Cross-cultural Distance Education

Although both these models shed important light on the nature of cross cultural learning and instruction, their applications to cross-cultural distance education are limited. This is primarily because Tharp's model was developed from work with young elementary school children rather than adults and both models draw from classroom rather than distance education contexts. For findings in cross-cultural distance instruction and learning we must turn elsewhere.

Unfortunately, "elsewhere" yields only limited information,

indicating the strong need for more research. A review of the literature in this area reveals writing in three areas:

1. Issues in international cooperation, policies, and third world development.

2. Problems in international research.

3. Cross-cultural distance instruction.

Issues in International Cooperation, Policies, and Third World Development

Literature in this area has centered on the need and nature of international cooperation in developing distance education for other countries. As noted earlier, many developing countries have seen distance education as a solution to the problem of much needed education for burgeoning populations. "Distance education offers the possibility of widening access to education at a number of different levels in a relatively cheap, or at least cost-effective, manner. It is currently being promoted by international organizations as an appropriate policy choice for developing countries" (Dodds & Youngman, 1994, p. 61). Through distance education, developing nations hope to make giant leaps in their desperate race to attain educational parity with the rest of the world. Many have come to realize that their economic, medical,

agricultural, and demographic futures are riding on their students.

As Magnus has noted (1991a):

> Furthermore, the shift of emphasis in distance and open
> learning to developing courses which are student-centered has
> also bolstered the importance of student as clients in the
> production process in education. The outcome has been a
> concern for quality materials and increased student support -
> neither of which provision can be achieved without an
> additional increase in the level of cooperation, either in terms
> of human or technological resources. (p. 2)

The focus of such cooperation has involved a number of

issues, including:

1. Information and research.

2. Training.

3. Materials.

4. Distance education policy.

5. Priorities in the use of distance education.

6. The infrastructure required by distance education.

7. Development of the capacity of institutions.

8. Co-operation and foreign aid.

As a result of this call for cooperation, numerous international

agencies, both governmental and non-governmental, have been

formed and distance projects launched in Africa and other regions

(Daniels, 1990). While most of these organizations have seemed to

overlook questions about cross-cultural issues, a few educators

have not.

Guy (1989) in particular argues that a number of issues need

to be considered:

> For instance, the assumptions and the models of
> distance education which emphasize [the learner's]
> independence and autonomy need to be critiqued, as
> well as the role and maintenance of indigenous
> knowledge in distance education programs, the need to
> investigate the cultural contexts in which distance
> education is situated, the desirability of developing
> sensitive and appropriate distance education initiatives,
> distance education as a change agent, and the
> consequences of the trend towards the
> internationalization of knowledge need to be debated
> and understood (p. 58)

Matthewson (1994) raises similar questions that she says are

"not directed only outwards to 'developed world' providers or even

particularly to the international entrepreneurs. They are also

relevant to the practices of third world governments, to their

national education policies, and to the policies of some aid donors"

(p.38). Her concerns are essentially synonymous with those of

Guy, including the effects of technology in the developing world and

the role of distance education as a change agent. She translates a

number of Guy's issues into questions about how third world

students process printed material (especially in a second language), learning styles of developing nations' students and the cultural contexts in which distance programs are situated.

Guy and Matthewson pose significant questions that lay a framework for research in cross-cultural areas of distance education. Some of them touch the present study. The problems of facilitating research in international distance education however raise a different set of questions concerning the actual conduct of research and collecting results. This represents another area of literature in international distance education.

Problems in International Research

McIsaac (1989) underlines the concerns of Guy and Matthewson that developing nations are attempting to apply established programs developed in other nations or cultures that do not fit their own. She also notes that they "are facing the implementation of massive education programs with little research to guide them" (p. 3). Indeed, reviews of the literature indicate such a paucity. The reasons for this lack of research in the face of significant cross-cultural problems fall into two areas: that of carrying out original investigations and that of evaluating existing research.

Original research is hampered by the factors of economics,

politics, and social limitations. The poverty of many developing

nations is often difficult for Westerners to comprehend. Many

have gross national products that are smaller than the total

revenues of major companies in the United States. In such

economic settings, the luxury of educational research is simply not

affordable. Research carried out by international aid agencies such

as UNESCO, USAID, and ORSTROM (a French organization) is still

quite small in scale and often channeled into areas of concern of

the host countries' governments. (TNC, 1990, USAID, 1988, 1993)

In many countries, education programs exist to support and

develop the policies of a particular political party. Such programs

reflect national priorities and planning. As McIsaac notes,

"Research projects which endorse this priority will have greater

chance of success" (p. 5). While this situation represents a

practical, logical perspective, it also constrains research.

McIsaac observes that data collection that is seen as being

too intrusive or aggressive, may be blocked. Such social factors

can greatly impair research, although they can sometimes be

overcome through the use of local researchers. The problem here,

however, is that such people may be difficult to find.

Despite impeding factors, research in international distance

education is being carried out. Collecting the results of such

research poses a different problem however. McIsaac notes that there has been little effort to centralize findings in current research and as a result, they are often difficult to locate.

McIsaac has created a database of such research at Arizona State University classifying articles as either *Instruction* or *Administration*. Unfortunately, due to temporary suspension of the project, the database is not available at this time. Outside of McIsaac's database, the literature reports only a few instances of research into cross-cultural distance education.

Cross-cultural Distance Instruction

In one of her studies, McIsaac (1993) focused on empowerment in a cross-cultural setting. In the area of pedagogy it was noted that Turkish students perceived electronic communication media as essentially a one-way link, with requests going one direction while information and resources flowed the other. The contrast in other classrooms is seen as a potential impediment to effective teacher/learner exchange.

Motivation is a second issue McIsaac raises. She notes that the Turkish students showed very diverse intrinsic and extrinsic factors such as voluntary versus required participation in the project. They were highly motivated to utilize computer equipment but their efforts were often impeded. "Access to facilities which

provide information" (p.8) is often limited to faculty, frequently to those in science and engineering. It is not viewed as a common resource for students and McIsaac feels that students will have to challenge this notion if they are to have free access to information required for decision making.

Another factor limiting access to equipment is that of technical difficulties. Equipment may be out of date, in disrepair or need frequent maintenance. Such problems limit the number of students who can use the equipment and can cause them to fall behind students in other countries who have fewer technical problems.

The final issue McIsaac raises is that of language. She notes that,

> Although students in many international universities read and write English, the amount of written material which is sent electronically, coupled with the particular jargon of the field can cost the foreign student many hours of deciphering. Without the 'face-to-face' signals of a questioning expression or a vacant look, the communicator has little idea that his or her message should be made shorter and more concise. (p. 9)

In spite of the difficulties, McIsaac feels that the project was a success in that students were more empowered for learning.

Motivation in Turkish distance students. Turkey also figures in a study carried out by Murphy (1989) on the motivation of

distance students in the open university of Anadolou. She points

out that,

> These distance learners must make a hasty transition from
> the traditional teacher-centered form of education to one in
> which they must function independently as they learn from
> text books and, optionally, from instructional television
> programs and a limited offering of face-to-face lectures. (p. 4)
> This poses two problems for students:
> 1. Their primary learning mode is oral rather than written.
> 2. They are extrinsically directed, used to teachers who "make
>   all educational decisions about what is to be learned and
>   how it will be accomplished" (p. 4).

The study sought the answers to two questions: (a) to what

factors do first-year OEF (Open Education Faculty) students

attribute their success and failure, and (b) what are the influences

on those attributions? The study was done within a framework of

attributional theory using a qualitative methodology of structured

and unstructured interviews, questionnaires, and participant

observation techniques. The multiplicity of protocols provided

"triangulation" to corroborate data.

Students were, on the average between 21-30 years of age,

70% were male and 61% were employed. Eighty-four percent of the

participants were urban dwellers. Two thirds of the learners were

majoring in business administration and the other third in

economics. A total of 112 students and university personnel

participated in the study. Results of the study situated motivation within three contexts: personal, cultural, and educational.

In the personal realm, students were motivated to participate in the OEF program because it allowed them to pursue their degrees while working. Seventy percent ranked this as the primary factor for their choice of the program.

In the cultural context, motivation centered around the higher status of degree holders, avoiding being a financial burden to their families, and the need to associate with other students and professors on a regular basis. This last reflects the high value placed on social interactions in the society. For Turkish students, to learn is to learn in a group.

In the educational context, Murphy reports that students who had graduated from vocational-technical high schools expressed a good deal of frustration with what they perceived to be a limited preparation for university courses. They frequently felt that, "The technical school didn't provide us with the necessary background" (p. 13).

Students primarily attributed success or failure to their effort and ability. Their secondary attribution was to luck. To a lesser degree they felt that the difficulty of tests was a factor in their success or failure but cited study conditions only in the case of

failure.

The fact that 3/4 of the students did not attend even half of the lectures or watch the televised instruction indicates that they made the transition from traditional teaching/learning methods to the distance setting with a high degree of success. Nevertheless, Murphy concludes that students had to make major changes in their methods of study. This research suggests "that what is learned about the motivation of distance learners in Turkey may be relevant to distance education systems in other developing countries where similar educational and social values are upheld" (p. 21).

Correspondence study centers in Africa. The International Correspondence Institute (ICI) delivers "non-academic and academic Christian training courses in 164 countries of the world" (Wilson, 1992). A sizable number of these countries are in Africa where most of the degree graduates (95-97%) utilize study centers. Wilson argues that these centers are central to the success of African students. He bases his argument on two premises.

Citing studies by Bowen and Bowen, and Gilbert, Wilson asserts that the majority of African learners are primarily field dependent (FD). His second premise, that FD learners "are less likely to succeed at distance delivery programmes" is based on

research by Chickering, Thompson, and Knox. Wilson reviews the characteristics of FD and FI (field independent) learning and teaching styles and notes that "most print-driven distance delivery programmes do not take into consideration some of these implications for FD learners" (p. 7). He argues that, while print-driven materials may provide the high structure that FD learners require, these students also need interaction with other students and mentors to give them direction and encouragement. As evidence for this he cites an analysis of course completion by Nigerian ICI students using or not using study centers. Sixty-six independent students (non-study center users) completed 52% of 240 courses attempted. At the same time, 58 study center students completed 95% of the 363 courses they attempted. Average completion time per course for the independent students was 7.4 months while study center students required only 5.2 months to complete an average course.

As noted earlier, Wilson explains this difference by asserting that study centers provide support for FD learners in two ways. First, they give students a structured instructional design system that offers a degree of external controls and interaction with mentors. In addition, the centers also make available a group-process oriented setting and assistance in helping "students in

adapting new information into their cultural frame of reference"
(p.10).

Wilson maintains that students would not have succeeded in such a distance study program without study centers. While one could certainly advance other explanations for the success or failure of students in the program, the study does bring into focus the need to consider the possibility that the nature of cognitive processing skills has a direct bearing on the design of print based distance materials. This is especially pertinent in the African context since print based materials are the dominant form of instructional media (Magnus, 1991b).

Summary

Much of the literature concerning cross-cultural distance education has been somewhat theoretical in nature and has often focused on issues of cooperation, politics or international development. In the area of cultural discontinuity and culturally appropriate instruction most research and writing is centered in the American classroom setting. Little has been studied from the perspective of distance education, although the nature of the cross-cultural instructional interface figures strongly in the studies by McIsaac, Murphy, and Wilson. Most of the literature reviewed here recognizes the importance of these latter issues and

McIsaac has provided some of the reasons for our lack of knowledge about them.

Perhaps the most important reason goes largely unmentioned. Namely, that international distance education is relatively new on the scene and has been driven more by its technological components than by its educational ones (Medlyn & Griffin, 1995). In view of all this, it is important that we look at one of the fundamental elements of this burgeoning educational phenomenon, the nature of the cross-cultural instruction-learner interface. It is in this context that the questions addressed by this study have been formulated. For the reader's benefit, a review of those questions follows.

1. Do cultural discontinuities exist in Western print-based distance education materials that are utilized by West African learners? If they exist, do learners perceive them?

2. What kind of cognitive strategies do West African learners employ when using American designed materials?

3. What is the nature of West African learners' motivation? Do cultural discontinuities exist in the motivational strategies embodied in the design of printed materials that target West African learners?

CHAPTER 3

Methodology

Introduction

As was seen in the review of the literature, much of the

current activity in international/intercultural distance education is

occurring in Africa and as Magnus (1991b) has noted, many, if not

most, of those programs are print based. At the same time, there

is a paucity of information concerning distance instruction in Africa

and none concerning possible cultural discontinuities in print-

based material. Given this increased growth in programs and

concurrent lack of basic research on the nature of cross-cultural

student/instructional material interactions, the need for the

present study was clear.

Rationale for Methods

In recent years, studies like those of Cole *et al* (in Pelissier,

1991) have prompted new methodological strategies that attempt to

avoid some of the difficulties associated with quantitative

practices. As Pelissier notes, "Recent work in cross-cultural

cognition has entailed a move beyond a concern with cognitive

properties as static phenomena that people do or do not have in

their heads, to a concern with practice and activity - with the

embeddedness of cognitive skills in particular interactive contexts rather than in isolated minds. One underlying assumption of this approach is that cognitive skills are inextricably tied to the practices and activities that invoke them" (p. 80).

Observing such practices and activities involves the use of an ethnographic methodology. Borg and Gall (1989, p.387) define ethnography as "...an in-depth analytical description of an *intact* cultural scene." Langenbach, Vaughn, and Aagaard (1994) elaborate on this concept in noting that,

> Essentially, ethnography and particularly educational ethnography, examines an educational culture in context, employing observation, interviews, and examination of documents (Spindler, 1982).
> ...Ethnologists conduct culturally comparative studies. Both traditions derive from the academic field of anthropology. The ethnologists' goal is to study various cultures' values, beliefs, and practices, ultimately to make cultural comparisons and generalizations about their universality. (p. 90)

The present study was best served by an ethnographic methodology because of the nature of the information sought. Although it may ultimately have some results that may be generalized and be useful in cross-cultural comparisons (with other African ethnicities for instance), its primary purpose was to discover how West Africans interact with American-generated

materials. The comparative aspect of the study is not one of "Can they do X as well as Americans?", but rather the nature and degree of compatibility between a particular group of West African adult learners and American designed instruction in the form of printed media.

Both Tharp, and Flowerdew and Miller have shown the multiple factors involved in cross-cultural instruction/learning and any attempts at explaining its nature should try to take into consideration as many of them as possible. Even more importantly, their relationship to the whole event and to each other needs to be examined.

Ethnography has been the traditional approach of anthropologists in many kinds of research, especially where little is known of the phenomenon being investigated. Given the difficulties of standardized instruments and quantitative regimes in cross-cultural research, and noting the need to take into consideration factors related to the phenomenon being studied, it is apparent that ethnographic methodologies provide a better tool for investigating these phenomena and a more useful means of considering many of the elements involved in such interactions as cross-cultural instruction.

The nature of the research questions in the present study

represented such little known phenomena. The existence of cultural discontinuities between African learners and American materials had not been established though it was to be suspected. Their form, however, was not yet known and the reactions of the learners not yet observed. Related to those reactions was the question of the kinds of cognitive strategies students bring to bear on the materials they encounter. Finally, rationales of African learners for participating and persisting in these particular learning experiences was largely unexplored.

Perceptions of discontinuities, reactions to them and motives for learning are all dynamic states and processes. They do not occur independently and each bears on the others. They represent an ongoing psychological experience and in such a situation it is probably true, as Deyhle has noted, that "... between the actor and the observer, it is the actor who is better able to know his or her own inner state" (p. 70). This is especially important when we consider that these states and processes are embedded in a larger psychocultural set and that in many ways the subject is best placed to interpret them to the observer.

While Flowerdew and Miller and Tharp have hypothesized about the nature of cultural discontinuities in Chinese college students, Hawaiian, and Native American children, there was no a

priori evidence that their findings apply to African adult extension students. This again called for an exploratory qualitative methodology that attempted a more holistic gathering of data and avoided attempting to test aspects of theories that may not be appropriate for the African setting.

In addition, because the data being sought was relatively unknown and may have diverged from what might be anticipated, it was important to utilize a methodology that allowed the research design to emerge as data was gathered. As findings started to be revealed it was important to be able to pursue their nature through repeated questioning and reflection, changing focus as the situation required.

Procedures

Lincoln and Guba (1985) suggest a number of steps to consider in planning ethnographic studies, including the following (pp. 233-247):

1. Determining where and from whom data will be collected.

2. Determining successive phases of the inquiry.

3. Determining instrumentation.

4. Planning data collection and recording modes.

5. Planning data analysis procedures.

6. Planning for trustworthiness.

In general this study incorporated these elements as a basis for design.

In this study the steps were translated into corresponding activities:

1. Analysis of instructional materials

2. Identification of participants, and cultural consultants

3. Data collection

    a) Initial interviews and explanations

    b) Think-aloud protocols

    c) Follow-up interviews

    d) Seminar observations

    e) Interviews with program administrators and seminar leaders

4. Data analysis

The organization of these activities was based in part on the guidelines for collecting and analyzing data suggested by Langenbach, Vaughn, and Aagaard (pp. 240-243). In addition, some of their other ideas, specifically, self-conscious notes, trying out emerging themes on participants, continuous reading in relevant areas during the inquiry and techniques for marking data texts seemed particularly good and were utilized.

The following describes the first three procedural activities in

more detail.

Analysis of Instructional Materials.

Because of their grounding across several cultures that are significantly distant from each other, the models advanced by Tharp and by Flowerdew and Miller provided some of the theoretical bases for analyzing and interpreting observations and data in this study. The first of these applications involved the printed instructional materials used in the Theological Education by Extension program of the seminary mentioned.

The books are written in French and organized into 12 chapters. Pages are divided into two columns with printed text in either the left column or in both. As the student works through the text he or she answers questions in the right column or in boxes that are imbedded in the text that are designed to reinforce points in the text. Correct responses are provided at the end of the chapter so that students may check their work. A series of "short-answer" questions at the end of the chapter provide further reinforcement and also the basis of discussion during later seminar activities. Students generally work on their own through one or two chapters before attending seminars, though they may complete the whole book before the seminar. They may meet with a teacher or monitor before the seminars. Sample pages are

provided in Appendix A.

The 25 books currently used in the intermediate and advanced courses of the extension program, commonly referred to as the Caribe books, cover a wide range of subjects including theology, church history, history, and culture of the ancient Near East, preaching, and counseling techniques. Rather than attempt to describe and evaluate the instructional format of each book it was decided to draw a sample from among them. Broadly speaking, the books treat primarily either declarative or procedural knowledge. Luger (1994) explains the origin and meaning of these two terms:

> Eight years later, Cohen and Squire (1980) proposed another distinction between what they called *declarative* and *procedural* knowledge. Procedural knowledge refers to knowledge of *how* to do things, such as ride a bicycle or swim. Declarative knowledge is generally accepted information about the world, such as that George Washington was the first president of the United States. (pp. 17-18)

Using this as a basis for classification, the former director of the seminary, the director of the program of Theological Education by Extension (TEE) and the researcher categorized the books and described the primary cognitive activities associated with them. The books were then subgrouped by discipline. Thus, books dealing principally with doctrine/theology, biblical interpretation, historical contexts, church history, and comparative religion fell

into the category of declarative knowledge. Those involving

Application to Christian Role were put into the group of procedural

knowledge. The classification and a list of all the books can be

seen in Appendix B.

From these groupings, seven books were chosen at random

from each of the subgroupings for an instructional format analysis:

(a) L'Evangile et les Epîtres de Jean, (Viertel, 1983), (b) La

Doctrine Chrétienne de Dieu, (Viertel, 1986), (c) La Cure d'Ame,

(Arnett, 1994), (d) L'Ethique Biblique et les Problèmes

Contemporains, (Giles, 1990), (e) Les Réligions dans le Monde

Aujourd'hui, (McCall, 1994), (f) La Réforme et le Protestantisme,

(Estep, 1987), (g) Le Monde de l'Ancien Testament, (Viertel, 1989).

One of the books, La Cure d'Ame, is not part of the Caribe series,

having been developed by an American working with West African

students at the seminary.

Using Sammons (1991) and also Meacham and Evans (1989), a

checklist of elements important to the instructional design of

distance education print materials was drawn up. The Meacham

and Evans list is organized into four areas: (a) design and layout of

materials, (b) goal definition. (c) cognitive structuring, and (d)

activation. Sammons's Spatial Learning Strategies and Frame

Types represent format elements that fit within the area of

Cognitive Structuring and so were added, since they were not present in the Meacham and Evans model.

Each text was then analyzed for the presence of the elements on the checklist. Notes were made concerning their presence or absence, degree of development and examples. The results are presented in chapter 4

Identification of Participants and Cultural Consultants.

Participant sampling. Lincoln and Guba list a number of sampling techniques but suggest that purposeful sampling, where participants are chosen to meet a specified need, is the most useful. They describe this technique as having four characteristics (p. 201):

1. It is *emergent*, with "no a priori specification of the sample."

2. It involves *serial selection of sample units*. That is, "The purpose of maximum variation is best achieved by selecting each unit of the sample only after the previous unit has been tapped and analyzed."

3. It involves a "*continuous adjustment or 'focusing' of the sample*" based on working hypotheses that develop from continuing data analysis.

4. It involves "*selection to the point of redundancy.*" That is,

sampling is terminated when no significantly new information is forthcoming.

Cultural Consultants. As has been noted before, an other-cultural investigator runs a number of risks of misunderstanding, misinterpreting or simply not perceiving important elements in data and observations. The cultural informants helped offset these dangers. They were selected because of their backgrounds in adult education, research, and cross-cultural experience. These consultants included a public school instructor in English and Ewe, a major African language of West Africa. He is also experienced in teaching and designing instructional materials for adults. The other consultant has worked extensively in demographic research with several non-governmental development agencies in West Africa.

Methods of Data Collection

This study was conducted among students and personnel drawn from a seminary for West African Christian Pastors located in Togo. Togo is a small, West African country that was, until 1960, a French colony. At the time, the school was operated by several participating national organizations of a major protestant denomination in Francophone West Africa and by the international mission agency of the same denomination headquartered in the

United States. Operation of the school has recently been transferred the Togolese national organization.

The school had an enrollment of about 1000 students, mostly male, from eight different countries. The mission of the school is to provide trained leadership for denominational churches and entities in French-speaking West Africa. The curriculum focuses on theology, biblical studies, and on pastoral practices and skills.

Although its program was initially situated on the main campus in the capitol city, the extension program (TEE) has grown to include students in eight countries with a current enrollment of over 700. As a result, the institution has moved from being a traditional campus-based organization to a distance education facility.

Extension students range in age from 19 to 70 with the average age being about 23. The majority are male though female enrollment is slowly increasing. Most students are seeking theological education because of a desire to serve in leadership positions in West African churches and organizations of the denomination.

The participants in this study were all males, ranging in age from 22 to 36 and representing four different ethnic groups. Four were married and three single. In relation to the general

population, all were highly educated, having completed nine to eleven years of public schooling. All held professional positions, most of them as pastors. They had completed between 2 and 25 courses in the program.

Togolese society, like many in West Africa, is largely composed of two classes. A very large lower class, comprising perhaps 90-95% of the total population is made up mostly of people from an agricultural background. They are poor, having average incomes of less than $800 a year. Educationally, the group spans a wide range. About half of the group has little or no formal education while the other half have attended school from about three to ten years. Overall, average schooling in Togo is about one and one half years.

The rest of Togolese society is comprised of a small, well educated, and relatively wealthy upper class. Many in this group have attended university, often in France, the United States or another country. They are employed in business, higher education, the government or work for outside agencies such as the United Nations. Members of the upper class are generally quite competent in French and can read and write well the language.

The participants in this study, for the most part, come from the upper levels of the lower class. Members of this level are

frequently seeking to be upwardly mobile and one could say that, in some respects, they represent an emerging middle class. Because they want to improve their economic and educational status, they often seek further education. They are likely candidates for the kind of education that is often carried out by distance means.

Participant number one was 25 years old, unmarried, and a native of a small village in the southern part of the country. He had been in the TEE program for about two years and had completed eight courses. He was a Waci, an ethnic group of about 400,000 found in southeastern Togo and southwestern Benin. He had completed ten years of schooling and was pastoring a small village church of approximately 25 members.

The second subject was from the Moba tribe, a group found in northern Togo, Ghana, Benin, and in southern Burkina Faso. Moba is distant, linguistically speaking, from Waci and Ewe. The second subject had completed eleven years of school, was married and came from one of the larger cities of Togo. He was 22 years old, had completed seven TEE courses, and was a part-time pastor of a local church. He also worked as a consultant for governmental literacy and translation projects.

The third participant was 32 years old and from a small town in north central Togo. He was a member of the Kabye ethnic group

and was living in a remote, rural area in the central savanna region. He was married, the father of one child and was pastoring a small Kabye church in the area. He had finished nine years of school and had completed two courses in the TEE program. Kabye is different from both the southern Gbe languages, such as Waci and Ewe, as well as those of the far north such as Moba. There have been large increases in the number of churches among Kabyes in the last few years, which explains why so many of the participants come from that ethnic group.

Participant number four was the oldest, at 36. He was married and the father of several children. Although he had been born in a small northern village, he was currently the pastor of a moderately large Kabye church in a large Togolese city. He had completed eleven years of school and, in addition to pastoring, had worked on governmental literacy and language projects in the Kabye language. He was by far the most well-read of the seven and had completed 23 courses in the TEE program.

The fifth subject, aged 36, had been born in a large northern city where he continued to pastor. He also, was Kabye, was married and a father. He had completed nine years of schooling. Having completed 25 courses, he was one of the first students to graduate from the TEE program.

Subject number six had completed nine courses. He was also a Kabye from the same large city as number five. He was 29 years old, married and had completed nine years of formal education. He was currently teaching elementary school and living in an ethnically different village in the southern part of the country. The researcher noted that he had significant difficulty reading the texts.

The last subject was an Ewe, born in a major city in the south of Togo. He was 32 years old, married, and employed as a domestic worker in the capital city. He had completed ten years of schooling and appeared to the researcher to be the best reader among all the participants. He had completed six TEE courses.

Participants were drawn from five of the seven TEE centers in the country at the suggestion of the seminar leaders. The basis for the initial three choices was one of student typicality or convenience. Subsequent choices followed the suggestions of Lincoln and Guba, seeking a widening range of participants so as to make the sample as comprehensive as possible. The other four participants included two who seemed especially competent as readers and students, and another who had seemed to have difficulty with the materials in courses. The fourth was completing the final coursework for the program and so was quite experienced.

After interviews and protocols with the seventh student were finished, it was decided that, within the current format of the research, no significant new data would be forthcoming and selection of more participants was terminated.

Initial interviews and explanations. Lincoln and Guba describe an interview as "a conversation with a purpose" (p.268) while Glesne and Peshkin say, "We conceptualize interviewing as the process of getting words to fly" (p. 63). Because the interface between the texts and participants occurs in the participants' minds, interviewing is one of the best methods available for observing and understanding that interface.

The interviewing technique used in this study was primarily what Lincoln and Guba call "focused" although the initial interview with each student participant was an "exploratory" one, more general in nature, seeking personal information about the participant. The general procedure for interviewing followed guidelines suggested by Glesne and Peshkin (pp. 63-92), Lincoln and Guba (pp. 273-275) and Lonner and Berry (1986, pp. 269-272). The focused interviews, in keeping with the constant comparative methodology of the study, targeted questions and issues arising out of the analysis of previous observations. As Glesne and Peshkin note, "By whatever means obtained, the questions you ask

must fit your topic; the answers they elicit must illuminate the phenomenon of inquiry. And the questions you ask must be anchored in the cultural reality of your respondents, the questions must be drawn from the respondents' lives" (p. 66).

Lincoln and Guba note that in the initial contact with participants "not enough will be known to formulate a structured interview protocol" (p. 240) because frequently "the interviewer *does not know what he or she doesn't know* and must rely on the respondent to tell him or her" (p. 269). The purpose of initial interviews was to obtain basic information about the participants, to explain the nature and purpose of the investigation (what Peshkin terms a "cover story") (p. 31-33) and make sure that participants were fully informed (Lincoln & Guba, p. 254).

The interviews were conducted in French, a second language for all, and focused on a number of issues, including general personal information, the participants' understanding of the nature and role of the TEE program, and their motivation for enrolling. Their satisfaction or dissatisfaction with its organization, instruction, and learning materials was also probed. In addition they were asked about their understanding of the TEE program and its distance nature as compared with a centralized, campus-based institution, their reasons for enrolling in the program and what

they hoped to gain from their studies. All the interviews were recorded, transcribed, and analyzed.

In the first two interviews, prepared questions formed the basis of the ongoing conversation and additional questions were asked to clarify responses or seek more detail. After evaluating these two interviews, the interviewer modified the questions. The two questions concerning the relationship of TEE to the mission organization and to the seminary were combined into one because the participants made no distinction bewteen the two entities. Questions in three other areas were added, prompted by responses given in the initial interviews. These were used in subsequent initial interviews

In particular, systematic, detailed questions were asked concerning the participants' personal experience in learning to read, including the nature of reading instruction they had received in public school. In addition, questions regarding what and how much students read were posed. A second line of questioning was added that probed the participants study habits in using the instruction books. The questions sought to understand students' initial reaction to books and any systematic activity they used to learn. Finally, several questions were asked that sought to determine if the participants were aware of specific cultural discontinuities in the

texts. *These included not only questions about foreign vocabulary but also about cognitive processes required for some of the learning activities in the texts.*

Think-aloud protocols. Think-aloud protocols have their roots in theories and models of judgment and decision-making (Loke, 1988). Loke explains that in such protocols, "Individuals describe their mental actions while they perform a task (think-aloud) and their responses are recorded."

The use of think-aloud protocols has been well documented in studies of this nature (Kang, 1992; Meyers et al, 1989; Langer, 1989; Kucan, 1993) as well as other kinds (Greene, 1989; Hong, 1993). The advantage of think-aloud protocols is that they allow the investigator to observe more closely participants' meta-cognitive processes as reported by themselves. While it is still an indirect observation, it eliminates the step of the investigator's inferring the meta-cognitive process being sought.

Protocol texts. The protocol texts, in French, were drawn from the instructional books used in the program, and represented all the categories used in the courses. The texts had been written by Americans and subsequently translated by a native French speaker. The selections represented typical format divisions of the books, indicated by a subtitle and the following text. All were

stand-alone sections not depending on preceding or subsequent passages for comprehensibility. Text content included church history, theology, geological science, principles of counseling, the teachings of Confucius, biblical interpretation and ancient Sumerian religion.

The investigator first explained and then modeled the technique of think-aloud protocols using one of the texts as an example. When the student indicated he understood the process, he was asked to read a text, telling his thoughts as he proceeded. At certain points the subject was asked to give a resumé of a paragraph or other segment of the passage. Occasionally students were asked to explain a response. Upon completion of the text, the interviewer asked the participant if he needed more explanation or made comments intended to encourage the reader to talk freely while he read. The subject then read a second text. Audio recordings were made of all protocol sessions for later transcription. Coding was cross checked for validity by the cultural consultants.

The cognitive characteristics of each response were coded using Langer's Analysis of Meaning Construction system (1984, pp. 73-96). "Misreads" involving mispronunciation, insertions or deletions of a word or phrase were also coded. In addition, the researcher

also noted content, and cultural or psychological elements related
to the response, such as a reference by one subject to a holiday in
his own culture that seemed similar to the one in the text.

Langer's Construction of Meaning

Meaningful learning, according to Ausubel (in Driscoll, 1994, p.
118) "...refers to the process of relating potentially meaningful
information to what the learner already knows in a nonarbitrary
and substantive way." This process of relating new information to
old can be called meaning construction, i. e., putting together the
new information in a way that makes it an integral whole that can
be woven into existing knowledge. The intentional use of such
processes is often referred to as a learning strategy. Langer
maintains that in reading, a number of forces come to bear on that
constructive process. These include textual, contextual and
attitudinal elements working within the mind as we construct an
integral whole, (what Langer calls an envisionment or text-world)
from the text. Past models of reading attempted to describe this
process in what were perhaps overly simplistic terms, either of a
linear or recursive nature. Langer holds that in fact, the process is
much more complex. Nevertheless some cognitive elements of the
process can be indirectly observed and analyzed. Her analytical
model posits seven components: reasoning operations, monitoring

processes, strategies, focus, the text unit, time, and knowledge sources. A complete list of cognitive elements, working definitions employed in this study and examples can be found in Appendix C.

Reasoning Operations. Langer (1986) explains the meaning of the term "reasoning operations" by saying:

> An important aspect of children's strategic behavior is the pattern of reasoning that is involved: they ask questions, generate hypotheses, make assumptions about what they and others know, use information or ideas drawn from their general schematic knowledge, give evidence for and seek validation of their ideas. These are all part of the thoughtful reasoning behaviors that take place when readers and writers make sense- as they develop text-worlds that grow and change and become integrated and refined. (p. 75-76)

In Langer's research, one of the more frequent operations, hypothesizing, increases with age (experience). Readers tend to use more hypothesizing when they have an idea about how the meaning of a text will evolve. When they are less certain, open-ended questioning increases and hypothesizing decreases.

The most common kind of behavior in Langer's data is using schemata, that is, calling on previous knowledge related to the content of the passage. This information may simply reflect memory activation or may be used in helping construct a meaning for the passage, i.e., a text-world. Another common process,

making metacomments indicates the degree of interaction of the reader with the text. In the category of reasoning operations, hypothesizing, using schemata, and making metacomments, represented the major part of cognitive behavior in reading.

Monitoring Behavior. Monitoring is a kind of cognitive "third eye" that surveys the information processing being done at a more basic level. It is a "quality control" process that assures that symbol decoding and text parsing are being carried out correctly. On a higher level of organization, it has the role of constantly checking on the text-world being constructed, looking to see that meaning is coherent and flagging confusion or inconsistencies.

Monitoring activities fall into two categories: awareness and use. Awareness is just that, being conscious of an underlying cognitive process. "Use" activities are those that involve correction of an error in meaning construction or the formulating of an activity necessary to advance the ongoing construction of the text-world. Langer sees this in terms of the developing, organizing, and transforming of ideas, all of which involves choosing among alternatives in a strategic manner. In monitoring, children usually provide a running commentary while older (more experienced) readers frame their comments in a more abstract manner. Langer's findings show frequent activity involving stating and refining

meaning and setting cognitive tasks necessary for constructing or completing meaning.

Strategies. Strategies are conscious or unconscious stages or phases of the reading process that involve using a cognitive plan or procedure to guide the reader through a text. They are interrelated or recursive rather than linear. For example, in reading fiction, a person may have as a general strategy to understand the broad lines of the story being read. If the story is a mystery, the reader may also be alert to pick up textual clues necessary for anticipating the ending of the story. As the reader proceeds through the text, she may generate tentative ideas, link concepts found in the text and summarize these into a coherent whole. As she moves on she may review and evaluate the text-world being developed. This, in turn may call for revising the ideas being formulated, perhaps generating new ideas or reassembling information in a new way.

Langer sees four kinds of strategies for reading: (a) generating ideas, (b) formulating meaning, (c) evaluating, and (d) revising. Of the four, formulating meaning is the most frequent in her data.

Text Units. One aspect of processing and relating text parts involves the level of the unit being treated. The reader's focus of processing frequently switches between treating some local aspect of the text or a larger, more global aspect as the unit of analysis.

For example, a single-word reference to time in a story may situate the events at night. Thus, the processing of one word will affect the global aspect of the text-world being constructed. Further reading may then reveal events that cause the reader to refer back to the nighttime setting in order to further develop, correct or otherwise modify this feature of the envisionment. Synthesizing a number of concepts situated in different paragraphs into a large, more inclusive one requires one to alternately focus on local and global units of the content.

Knowledge sources. The reader's knowledge plays an important role in interpreting a text and constructing meanings for it. Such knowledge, according to Langer comes from three sources: the genre, the content and the linguistic features of the text being read.

Genre characteristics of a murder mystery elicit within the reader knowledge about the format of such works. The reader may expect to find information, seemingly unrelated at the beginning of the text, that later will be used to construct a solution to the crime around which the story revolves. Experience with such a genre will have provided knowledge useful in predicting how the story will evolve. In contrast, a non-fiction text, such as a report, will often detail the arrangement of its information from the first page and

will frequently spell out important links between concepts or between other items of content. The reader will employ his knowledge of this genre to help guide him through the text and construct appropriate meanings.

Knowledge of the content of a text is extremely important for constructing meaning. A desert dweller reading about whales would have an extremely difficult, (if not impossible) time constructing an accurate text-world unless he or she were familiar with the ocean and some of its inhabitants. Similarly, emotional experiences similar to those related in a particular text will allow the reader to better understand the meaning of a passage.

The linguistic features of a text require a knowledge of them in order to use them appropriately in constructing meaning. An example might be found in an American learning to read French. A lack of knowledge of the passé simple and subjunctive verb forms in French will severely limit certain aspects of comprehension of a novel written in that language. Equivalents of these verb forms are essentially non-existent in English. Both however, carry much information about the time and the degree of certainty of events related in a text. As might be expected, text content is generally the most frequent source of knowledge used in meaning construction

Reader focus. Cognitive activity in reading can be classified as falling into two categories, process and product. Activities that deal with metacognitive elements such as strategies that might have been used or other "thinking about thinking" represent a focus on process. Those that deal with the piece itself and developing its meaning are called product activities. In the Langer study most responses represented product-focused thinking.

Time. The various cognitive processes described so far vary in their occurrence with respect to frequency and the point in the text when they occur. Some are more likely to be exhibited near the beginning of a text or with more frequency while others, such as refining meaning, happen further into the reading.

Reading is a complex phenomenon made up of many interwoven, mutually regulating cognitive interactions, all working toward producing a coherent meaning that can be integrated into the existing psyche of the reader. Tracking these activities and their interactions is extremely difficult, if not impossible. However, using Langer's model allows us to build a picture of the dominant activities that take place when readers encounter texts. It also provides clues to cultural discontinuities that occur when readers and texts come from different cultures.

Follow-up Interviews. The results of the talk-aloud protocols

led the researcher to formulate new questions concerning the students' interaction with the books. These questions became the basis for structured follow-up interviews that focused on three areas: (a) their experiences in learning to read, (b) their perceptions of the Caribe books, and (c) their study habits while using the books. As Lincoln and Guba note, "the structured interview is the mode of choice when the interviewer knows what he or she does not know and can therefore frame appropriate questions to find it out..." (p. 269). This is a common procedure for data collection in ethnographic inquiries (Langenbach, Vaughn & Aagaard, 1994, p. 240; Goetz & LeCompte, 1984, p. 130), especially where a constant comparative method is employed, as is the case in this study. The follow-up interviews were conducted after seminar observations in order to pursue items or issues that arose there.

Seminar Observations. Observations were recorded primarily in the form of field notes. It had been hoped to videotape the session for more thorough analysis but lack of resources and time prevented this.

The observations of the researcher focused on the following:

1. The organization of the seminars.

2. The nature and structure of communication in the seminars.

Is it primarily lecture? Discussion? Question and answer?
Who talks to whom?

3. What do student questions and comments reflect or
    imply? The kinds of questions they asked. Do they
    reflect: (a) lower or higher order thinking, (b) good
    comprehension, (c) application of content to students'
    situation, (d) the nature of student motivation?

4. Examples of cultural discontinuities as described by
    Tharp, i. e., social organization, sociolinguistics, cognition
    problems, motivation.

Notes were transcribed and data organized as in the
interviews and think-aloud protocols.

Teacher and Program Administrator Interviews. Four teachers
in the program were also interviewed concerning their perception of
student behavior, the Caribe textbooks used in the program, and
cultural discontinuities experienced in the classroom. They were
asked to describe and interpret qualities and characteristics of TEE
students in general. In addition they reported observations
concerning cultural discontinuities they had observed in their
classes. One of the teachers was also the director of the TEE
program and another the director of the seminary. The other two
teachers had long experience with TEE students, having conducted

more than 30 courses between them. In addition the researcher

contributed his observations as a TEE teacher.

Data Analysis

Establishing Trustworthiness. The problems of internal and

external validity of data collection techniques employed in

qualitative studies has been treated by a number of prominent

researchers (Borg & Gail, pp. 404-410; Lincoln & Guba, pp. 289-

331; Goetz & LeCompte, pp. 208-243). Three techniques have been

suggested by Lincoln and Guba for overcoming these problems:

prolonged engagement, persistent observation and triangulation

(pp. 301-305).

These three techniques were embodied in the design of this

study. The investigator has spent a number of years in the milieu

as a community participant and as a teacher/educator, thus being

well acquainted with the cultures. As a result he was adequately

equipped to, "identify those characteristics and elements in the

situation that are most relevant to the problem or issue being

pursued and focusing [sic] on them in detail" (Lincoln & Guba, p.

304).

Persistent observation was present in the fact that the

observations were made over a two-year period with constant

review of the data informing them. The question of triangulation

was dealt with by the use of multiple sources (students, seminar leaders, and cultural consultants) and multiple techniques (think-aloud protocols, interviews, and seminar observations).

Lincoln and Guba believe that "The instrument of choice in naturalistic inquiry is the human... " and that "Even if the inquiry is of sufficiently small scope so that one person might conceivably carry it out, the advantages of using teams are so overwhelming that teams ought always to be used..." (pp. 236-7). In this study, investigation was carried out primarily by the author but a team of cultural and program consultants also served as resources for analyzing and interpreting the data.

In addition to the cultural consultants already mentioned, the former director of the Theological Education Extension Program for Togo, the director of the seminary and one of the professors/instructional material developers at the school, also contributed to interpreting and evaluating the findings of the study.

Methods of Data Analysis

The constant comparative method. It is understood and accepted that qualitative research builds on itself as the investigation develops (Langenbach, Vaughn & Aagaard p. 241; Borg & Gall, p.295-296; Glesne & Peshkin, 1992, pp. 127-132). This is

reflected in the method of data analysis called the constant comparison method to be used in this study. Devised by Glaser and Strauss (1967), the strategy combines inductive category coding with a simultaneous comparison of all social incidents observed. As social phenomena are recorded and classified, they are also compared across categories. Thus the discovery of relationships, or hypothesis generation, begins with the analysis of initial observations, undergoes continuous refinement throughout the data collection and analysis process, and continuously feeds back into the process of category coding. As events are constantly compared with previous events, new typological dimensions as well as new relationships may be discovered.

In this study the investigator began with analysis and coding of data from the think-aloud protocols and interviews done with two students, as well as seminar experiences and observations from two courses he taught. These helped shape the focus of subsequent data collection and analysis. A third participant was then interviewed and taken through a think-aloud protocol. These were transcribed and studied. Subsequently, two more sessions were carried out. This cycle of collection and analysis continued until a "stop" point, as described by Lincoln and Guba, was

reached. They note four criteria for such a stop point:

1. Exhaustion of sources.

2. Saturation of categories; that is, no new categories or
classifications are found.

3. Emergence of regularities.

4. Overextension ("the sense that new information ... does
not contribute usefully to the emergence of additional
viable categories") (p. 350).

Categorizing. Both Lincoln and Guba (pp. 345-56) and Goetz
and LeCompte (169-74) describe methods for categorizing and
analyzing data that appear useful. In general the steps suggested
by Goetz and LeCompte (pp. 170) were applied in this study:

1. Describe the observations, divide them into units and
indicate how they are like and unlike.

2. Determine which items are associated with each other
and thus may be aggregated into groups.

3. Generate properties and attributes that the data units of
a category share.

4. Establish linkages and relationships among units and
categories.

5. Speculate or theorize about these relationships with a
view to developing working hypotheses for understanding

future data and creating a final analysis.

As the data were being transcribed, pertinent information was categorized and grouped into emerging issues. Ideas, hypotheses and questions about the issues were regrouped into a list of developing issues. In reviewing these, the research would frequently note related data not previously considered and add these also to the list. This cycle of transcription, categorization and generation of new ideas, questions, and hypotheses produced a final set of emerging issues that are treated in chapter seven.

Validity. The need for trustworthiness or validity was dealt with through what Lincoln and Guba call "member checking" (p. 314-16). They note that, "The member check, whereby data, analytic categories, interpretations, and conclusion are tested with members of those stakeholding groups from whom the data were originally collected, is the most crucial technique for establishing credibility" (p. 314). Member checks were done with participants, cultural consultants, and seminar leaders on a regular basis as necessary.

Summary of Procedure

Participants in this study were students enrolled in the extension program of a denominational seminary for Christian leaders in Togo. Extension seminar leaders and administrators

also provided data.

The first step was an analysis and description of instructional strategies utilized in the printed materials. This was followed by initial interviews, participant think-aloud protocols, structured interviews of participants, and seminar observations. Data was recorded and transcribed and analysis done using a constant comparative method. A description of students' learning interaction with texts was drawn and a comparison made with strategies employed in the texts. This provided contrasts and comparisons between the two that highlighted the presence and/or absence of significant cultural discontinuities. The researcher attempted to explain such discontinuities in terms of Tharp's model of psychocultural variables.

Cross-cultural research is fraught with traps and difficulties, not the least of which is the fact that the researcher is himself culture bound and often, culture blind. In addition, the very presence of an investigator from another culture influences the phenomenon being investigated even more than if he or she were from the same culture. Such is the situation. Nevertheless, as Smagorinsky asserts, "Our effort should not be to avoid participating in the construction of data, but to recognize and account for the ways in which we inevitably contribute to the shape

our data take" (1995, p. 208).

Assumptions

In any research activity some assumptions must be made. This is especially true in cases of a cross-cultural nature. Following are assumptions made for this study:

1. It was assumed that the investigator and Francophone participants were adequately proficient in the use of the French language to carry out this research.

2. It was assumed that the use of French as a second language by both participants and the investigator did not pose a significant impediment or barrier to the reporting and collecting of the data.

3. It was assumed that the data collection methods were appropriate for cross-cultural research of this nature.

4. It was assumed that cross-cultural differences are knowable and that they can be communicated.

5. It was assumed that the necessary co-operation would be forthcoming on the part of the participants and others involved in this study.

6. Though reading competence may play a role in the research outcomes, its effects were assumed to be minimal because

participants had passed a French proficiency test before entering the program.

CHAPTER 4

Analysis of Instructional Materials

Analysis and Evaluation

Using Sammons and also Meacham and Evans (1989) a checklist of elements important to the instructional design of distance education print materials was used to analyze and evaluate the instructional materials. The list contained four components noted by Meacham and Evans, (a) Design and Layout of Materials, (b) Goal Definition, (c) Cognitive Structuring, and (d) Activation, as well as Sammons's Spatial Learning Strategies and Frame Types.

All of the books used follow the same instructional format. Each book consists of twelve chapters, each one representing a week's lesson, thus a course length of about three months. A series of frames runs down the margin of each page containing questions about the adjacent text. In some books the frame questions are placed within the text at key points. The questions are structured in a number of ways including matching responses, short answer, fill in the blank and true or false. The questions generally focus on knowledge of a factual nature, such as, "The primary mission of the church is _____." or "Write the number of the definition that goes with each of the following words." There are 15-20 short

answer questions at the end of each chapter that treat the material covered within. These questions sometimes require the learner to recall facts or to synthesize information into a whole, for example, "In general terms, how should a preacher prepare himself to speak?" Another example is, "Name the six objectives of sermon illustrations." A series of 5-10 discussion questions to be used in class are also added at the end of the chapter. These include questions such as, "Discuss the value of studying different religions" and "How can a study of the Old Testament be useful to people today?".

Design and Layout of Materials.

Guideposts include clear explanation of the material's destination and how it is organized. These should occur at the beginning of the text. Guideposts may include a concise table of contents and explanations of chapter content arrangement. Staging points should occur throughout the text and show where the student has been, where he is and where he is going. Staging points may be sidebars or summaries at certain points in the text that relate information already treated to the larger organizational scheme. Except for La Cure d'Ame, none of the books used guideposts and staging points to a significant degree and most used none at all.

Illustrations and Pictures. Le Monde de l'Ancien Testament includes 66 photos and 20 maps. None of the other books used any visual illustrations.

Variety. Meacham and Evans maintain that variety is very important for holding interest (p. 49) and suggest variations in sentence length, vocabulary, student learning activities and the use of examples and verbal illustrations. Unfortunately, the standardized format of the books precluded a great deal of variety. In general the books were quite repetitive and most used few illustrations or examples. Two exceptions to this were found in La Cure d'Ame and La Réforme et Le Protestantisme, which included significantly more textual variation and greater use of examples and illustrations.

Writing Style. Meacham and Evans include a number of elements under writing style. They suggest that attitude and tone should reflect "...a personal, informal manner, where possible writing as you would talk using down to earth examples, familiar terms and personal pronouns" (p. 50). While applicable to American students, it is not certain that these values are appropriate for West African adults since schooling is invariably a formal affair, as will be seen in interview results in another chapter. Nevertheless two of the books, La Réforme et le Protestantisme and La Cure d'Ame reflected a more relaxed tone, although they never approached the "down to earth"

tenor suggested by Meacham and Evans. La Réforme et le Protestantisme's relaxed tone was seen through its frequent use of interesting stories to illustrate historical points such as "The Sausage Protest", an event during the Swiss reformation, in which a large group of protestant pastors and leaders gorged themselves on sausages in defiance of an ecclesiastical declaration. In La Cure d'Ame, the writer used many common illustrations from African life and wry observations on people's behavior to convey an informal, almost conversational style. In contrast, the other books maintained the rather formal attitude and tone often found in textbooks.

Style and expression. Meacham and Evans say that style and expression should be characterized by the use of headings and subheadings to "break up the flow of words and show organization of thought" (p. 51). This was done consistently in all of the books as a result of a standard layout format.

Sentence structure. Meacham and Evans also include sentence structure as an index of style and expression. Simple and compound declarative sentences made up most of the texts and showed a fairly large range of length. While the typical length fell between 19 and 21 words, the average for La Cure d'Ame was only 14.6. La Réforme et

le Protestantisme had a large number of very long sentences, some exceeding 30 words.

Terminology. The writing style should keep vocabulary simple and uncomplicated. It should make the meaning of language common to disciplines unambiguous and quickly lead the learner to use it in an appropriate fashion. The degree to which this characterized the seven sample books varied markedly. La Cure d'Ame (Arnett, 1994), introduced vocabulary with clear definitions and incorporated them into examples. This is seen in a passage from the text.

> Christian counseling is a process by which one helps another person to restore balance in his life and to develop his full potential in order that he might worship and serve God to his very best. This indicates that this ministry is continual. The pastor is concerned about his members. He continues to help them even after their problems are resolved (p. 5).

Les Réligions dans le Monde Aujourd'hui used lists and charts to explain new jargon, while L'Ethique Biblique et les Problèmes Contemporains. (McCall, 1994), noted new terms in italics and defined them. These last two however, did not use many examples to expand and generalize definitions. The other four books introduced rather large vocabularies but made little effort to explain them. Examples of this were found in sentences like, "Nationalism and cultural renewal have given a new breath to non-Christian religions." The terms "nationalism" and "cultural renewal", both

relatively unknown among African students, were not explained. Similarly, in the following phrase, certain words are not defined or explained in detail: "When one speaks of material remains, one envisions everything tangible, such as inscriptions on stone, metal, clay, parchments, and papyrus..." [2] (Viertel, 1989, p. 9).

Goal Definition.

According to Meacham and Evans (p. 53) students "need clear guidelines as to what they can expect to gain from the subject/unit and what is expected of them." Such guidelines are expressed in what Meacham and Evans call *aims and objectives*. Aims involve explanations of the role of the course, the reason that a student should take it and a summary of the course content.

Role and Reason for Taking the Course. Two of the Caribe books, Les Réligions dans le Monde Aujourd'hui, (McCall, 1994) and L'Ethique Biblique et les Problèmes Contemporains (Giles, 1990) indicated the role and rationale of the course as it relates to the profession of pastor. As the second of these notes, "The study of ethical and moral teachings of the Bible is essential for pastors and church leaders for several reasons" (p. 7). The text then devotes four paragraphs to such reasons. Le Monde de l'Ancien Testament included one sentence to this effect although it is rather imprecise.

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[2] This, and all subsequent translations are by the author from the French.

The rest of the Caribe books had no such statements. La Cure d'Ame stated both clearly in a developed rationale.

Summary of Contents. Except for La Cure d'Ame, none of the books had a summary of contents.

Objectives should relate the intent of the course, its content and the assessment in an unambiguous manner. None of the books spelled out precise learning objectives although La Doctrine Chrétienne de Dieu, L'Ethique Biblique et les Problèmes Comtemporains, La Cure d'Ame, and Les Réligions dans le Monde Aujourd'hui all had good intention statements. La Doctrine Chrétienne de Dieu for example, began with a list of questions such as, "How do we know that God exists?", "What is religion?", and "Is your religious experience real or imaginary?" (p. 7). The text then defined terms and proceeded to treat the questions one by one.

Linking content and intent was well done in three of the books but was weak in two others. Two of the books did no linking. All of the books related assessment, i.e., the chapter questions, closely to the content but only two, La Doctrine Chrétienne de Dieu and La Cure d'Ame made attempts to link assessment to the intent of the course.

Meacham and Evans note that objectives and aims should be unambiguous and should differentiate among skills, attitudes, and

knowledge that are to be learned. Only <u>La Cure d'Ame</u> did this well. <u>Les Réligions dans le Monde Aujourd'hui</u> contained one section that did this but it was not carried through in each chapter. The text stated two objectives of the course, one being to help the pastors remain faithful to their own convictions and the other being to help pastors understand other religions better. The other five books contained no precise, well-differentiated objectives.

Cognitive Structuring

Meacham and Evans hold that print-based materials should be arranged in modules or study units "based on an idea which is fairly discrete, but clearly located within the wider conceptual framework of the subject as a whole. Students should be encouraged to learn one unit at a time and then integrate their understanding of the completed units" (p. 59). They suggest that modules be organized according to the internal logic of the subject or unit. This logic may be based on either the conceptual or the substantive nature of the content treated in the course. The author should make an informed decision on the type of module to be used and communicate this to the learner. This can be done through the course outline, the table of contents, the types of headings used in the text and the type and frequency of learning activities and evaluation. The module should indicate clearly the amount of time needed for completion.

All of the Caribe books and _La Cure d'Ame_ are based on modules defined by the 12 chapters found in each one. The modules generally follow the internal logic of the subjects though the degree varies to some extent. Nevertheless, the organization of chapters according to concepts or substance is clearly defined. While this suggests that the authors have made informed decisions about module types, the rigid constraints of the 12 chapter format probably preclude the most effective organization of the modules. No justification of the module organization is made to the learner and a nominal time of one week is allotted for each unit.

Structuring the Text. This is, according to Meacham and Evans (p. 60), a fundamental part of the process of presenting a subject in a cognitively compatible fashion. They suggest several components to consider, including having a good understanding of the students' knowledge, experience, and expectations, and selecting strategies that will effectively relate these to the new knowledge to be presented. Another component is clarifying the conceptual structure of the subject, presenting important issues and facts, sequences, and relationships. These should be organized in such a way that the learner can move from the simple to the complex and control the order in which he or she learns. In addition, they emphasize the importance of providing generalization, examples, analogies, practice,

and other supporting content. Finally they suggest that the text should note appropriate learning strategies for each unit or segment and should incorporate ongoing synthesis and summarization of the material learned.

The Caribe materials were originally produced in English for adult learners in several Caribbean nations, but it is not known whether they were conceived with a knowledge of those students in mind. Thus, it is not likely that the authors, with the exception of some of those in *Les Réligions dans le Monde Aujourd'hui* who have West African background, were acquainted with the needs, expectations, and experiences of West African students except in a most general way. *La Cure d'Ame*, by contrast, which involved a number of West African adult students in its production, anticipated very well the nature of its users.

The sample of books in this study, for the most part, frequently assumed a large knowledge of Western culture on the part of the students. Generally no attempt was made to employ any strategies for relating this assumed knowledge to the new knowledge that is presented in the texts. They made no reference to learner expectations.

All of the books make clear the conceptual nature of the material they treat through the organization of the chapters, *La Cure d'Ame*

being the most thorough. In addition, most of them pointed out significant facts, issues, and relationships. The exception to this was L'Evangile et les Epîtres de Jean, which introduced only one main theme in the beginning chapter and then developed into a running commentary on the Biblical texts in which key ideas were not always highlighted.

Meacham and Evans suggest that the student be made aware of prerequisite learning necessary for moving from the simple to the complex. Except for La Réforme et le Protestantisme, and L'Evangile et les Epîtres de Jean, the sample books generally did not do this, although most provided some measure of control in the sequence of learning.

Apart from La Cure d'Ame, instances of generalization, analogies, and practice were few. Les Réligions dans le Monde Aujourd'hui provided some generalizing and practice but it was not systematic or continual. All of the books provided a number of examples and supporting content and details. Conversely, the books showed a significant lack of summarizing and synthesizing.

Advance Organizers. Another device useful in effective cognitive structuring of text is the advance organizer. Meacham and Evans define an advance organizer as, "Introductory material presented in advance of instruction and of a higher level of abstraction, generality,

and inclusiveness than the following related instructional material"
(p. 60). These provide a framework within which subsequent new
knowledge can be situated and incorporated into existing cognitive
structures. In advance organizers, an overview of new material in a
unit or segment can be presented and related to the whole of the
material. Examples of good advance organizers are concrete models,
analogies, examples, high order rules, general discussions, and
meaningful comparisons.

The books drawn from the Caribe series were weak in this area.
Four of the books used no advance organizers while two provided a
list of main chapter points at the beginning of some chapters. The
non-Caribe book, La Cure d'Ame, did make good use of advance
organizers, generally beginning each chapter with an introduction
employing examples, thought experiments, discussion or role
descriptions to present an overview of the chapter content.

Sammons' Spatial Learning Strategies include concept mapping
and frame types. La Cure d'Ame made frequent use of concept maps
in the form of sociograms, psychological relationship diagrams, and
genealogical charts. Les Réligions dans le Monde Aujourd'hui had
two of Sammons' type 1 frame charts showing the Voodoo deities of
Haiti and other Caribbean cultures. None of the other books used
these kinds of cognitive organizers.

Activation

Meacham and Evans note that

> ...the activities and exercises included in the materials will serve as checkpoints which indicate whether or not the student is progressing satisfactorily. The activities should highlight the significant ideas, questions, and points of view that the student should master if the subject objectives are to be met. (p. 65)

Effective activation has a number of characteristics. First among these are activities in which learners can express their grasp of key facts and concepts of the course material. Secondly, some activities should focus on course content while others help students practice cognitive skills such as analysis, synthesis, and evaluation. Thirdly, the activities should signal important concepts and controversial issues pertinent to the subject matter. They should also, when appropriate, provide experience through home experiments. Finally, learners should be able to evaluate their own understanding of the content by developing concrete examples and relating them to relevant theoretical concepts.

All of the books used the same kind of learning activities, frame questions, short answer questions at the end of the chapter and discussion questions for use in the class session corresponding to the chapter. This severely limited the nature of learning practice. While these activities provided an opportunity for students to show

their grasp of key facts and concepts, the questions tended to rely

heavily on lower order cognitive processes such as memorization, list

making, and defining terms. In fact, it was frequently possible to

copy answers to the questions directly from the text without really

grasping their meaning. Few of the frame and short answer

questions required the student to synthesize, evaluate, or analyze.

These processes were more frequently incorporated in the

discussion questions that are usually reserved for the class

sessions.

Although the short answer questions frequently underlined

important concepts in the material, they rarely touched on

controversial issues or called for pro and con arguments concerning

a particular subject. More often they simply required students to

reproduce lists or definitions cited in the texts. Similarly the

discussion questions, while potentially a means of providing

learners with an opportunity to develop concrete models related to

important concepts, in fact, tended to stay in the theoretical realm.

For example: "Christian doctrine, is it a science?", " Discuss the

motives of a moral Christian life., What are the best ones?",

"Discuss the activities and results of the Inquisition." (Viertel, 1986,

p. 21).

La Cure d'Ame adds dialogs and role playing exercises to the standard question activities. These allow the learner to put into practice the theoretical aspects of the subject treated in the text. It also provides opportunity for students to critique each other's counseling practices and provide other feedback for improving their skills.

As can be seen in the analysis, the Caribe books possess a mixture of strengths and weaknesses in their instructional design. While at many points they are effective teachers, overall, they have room for much improvement, particularly in the areas of aims and objectives and in their promotion of higher order, independent thinking. This last is important because pastors must frequently work apart from resources to help them with scripture interpretation and other kinds of conception building.

Summary.

In the area of *design and layout of materials* the books possessed both a number of weaknesses and strengths. Only one of the book utilized maps and illustrations and the variety in textual features was quite limited. While two of the books reflected a somewhat relaxed, personal style of writing, the other five tended to be much more formal. The style and expression of the format was good with chapters well organized into logical subsections and sentence

structures that are generally easy to follow. The presentation and use of new vocabulary left much to be desired because of unclear definitions and the lack of use of new words in a variety of ways to provide effective generalization. Furthermore, much of the vocabulary assumed cultural knowledge and general information not usually possessed by the students.

Similarly, *goal definition* was not very well developed in most of the books. Only two of the books made attempts to define aims of the courses or to spell out objectives, although five of the seven contain clear intention statements. None of the books had a summary of contents at the beginning of the chapter. Assessment was closely linked to content in all the books.

Most of the books incorporated some aspects of good *cognitive structuring*, but overall this is another area of reduced effectiveness of design. In particular, the books seemed to assume knowledge and experience that the learners do not have. This is particularly true in the domain of familiarity with western cultures and depth of vocabulary. Furthermore, none of the books seemed to use strategies to relate learners' knowledge and experience to that presented in the books nor did they state prerequisite knowledge the student should have. Opportunities to practice and generalize knowledge were limited.

Instructional design strengths of the book included effective use of examples and supporting content. In addition, all of the books made the conceptual nature of the material clear and present it in well-organized chapter modules. Unfortunately, no advance organizers were used in six of the books, significantly weakening this aspect of the instructional format.

In the area of *activation* the books provided a good opportunity for students to indicate their grasp of important facts and concepts through the various questions used in the chapters. Nevertheless, two aspects of the design hampered the effectiveness of these activities: the rigid format control of the chapters and the lower order thinking that dominates them. With the exception of La Cure d'Ame, there were few occasions where students were able to exercise thinking in analysis, synthesis, and evaluation. Similarly the various sides of issues are not treated and there was limited opportunity for comparison and debate.

Appraisal.

Many of the weaknesses in the instructional format of the Caribe books flow from their historical placement in the development of TEE. The birth of TEE as a form of theological education occurred in the late 1960's and early 1970's, a time when behaviorism still exerted a powerful influence over instructional design. The frame

questions in particular are reminiscent of many materials that appeared in public education and training during that period. Their format also reflects the fact that cognitive learning theory was still being established and that many aspects of research and understanding of effective distance education instruction were still being developed. Taken together it is not surprising that the books have room for much improvement. As will be seen in the following chapter, however, they have still proven valuable and useful to students who use them.

Chapter 5

Interviews and Classroom Observations

Initial Participant Interviews

The initial interviews with the participants were structured around four topics:

1. The participants' conceptualization of TEE.

2. Their motivation for participating in the program.

3. The degree and nature of their satisfaction with the program.

4. The degree and nature of their dissatisfaction with the program.

Conceptualization of TEE. When asked to explain their understanding of the program, all of the participants saw it first as a means of educating pastors and church leaders in theology, pastoral skills, and spiritual edification. As one student put it, "TEE is the study of theology written by people who know about it and encourage others to know it. It helps you know a lot more about the Bible and God." Another said it is for "training in Bible knowledge and pastoral skills and methods."

Only three of the participants readily expressed the idea that TEE was an extension program of the central campus. Most seemed

to see it as a stand-alone program that they tended to describe in terms of its perceived attributes as opposed to relationship structures. They noted, for instance, that it permits them to study at home and that, whereas at the central campus, "the students go where the professors are...In TEE, the professor comes to you." One participant observed that it is called decentralized (the French term) because there is also a centralized program. Another remarked that you did not have to have a scholarship to participate, making reference to the subsidy program offered to regular students for the more expensive on-campus program.

Some who had attended courses at the central campus contrasted the TEE courses with those, one noting that, "There are TEE courses and [campus] courses. TEE courses are not regular, just from semester to semester. TEE classes let you understand the book and subject well. The Lome campus goes too fast for that." Another felt that at the Lome campus, "...we had more time and more work. We also had a library. In TEE you don't have these possibilities - no library, maybe only one book for homework. There are a lot more resources and possibilities at the main campus."

When specifically asked about the relationship between the program and the seminary, one participant did not know, two thought it was the beginning level of courses for the central campus that

qualified students to continue their studies there. The others simply contrasted the characteristics of the courses with those at the central campus. None of the student knew who had created the program.

To further understand the participant's conceptualization of TEE, they were asked to explain why the TEE program existed. Here they showed a good understanding of a distance program rationale. Six of the seven noted that it allows people to study at home. As one put it, "It's for training pastors to do their work better right where they live. They might do it right next door to the church." In addition they noted that it was less expensive and provided them with a diploma to show that they had been trained. One participant maintained that it existed as a kind of filtering program for the main campus, remarking that "...you can see if they are capable of doing the work there. Otherwise there are people who might come to the central campus but not be able to keep up with the work."

Motivation. The participants were asked to explain why they had enrolled in the program. All expressed the need to improve their knowledge and skills to fulfill their role as pastors or church leaders. One noted that, "I felt called to serve as a pastor and needed training," while another remarked that "When we started our church I was the only one who knew how to read...I saw that I needed more

knowledge." While most made the decision to enroll by themselves, two noted that their churches had encouraged them to get more education. Another was encouraged by an older friend, an act that carries much weight in African societies, where the advice of an elder is taken very seriously. The participants also voiced a high level of interest in the content of most of the courses.

In another approach to seeking information about participant motivation for the program they were asked what they expected to receive from their courses. Most again expressed the idea of obtaining knowledge and skills they needed to carry out their jobs. Students were subsequently asked about the reasons other students enrolled in the courses. Three of the subjects noted that a few students go into the program simply as a means of earning a living. That is, they may have a general interest in the pastorate or theology but not necessarily a high sense of commitment to church leadership. Such students see theological training primarily as a means of obtaining marketable job skills. This was not a common attitude, because, as one participant noted, "Most people though, know what kind of job pastors do and how much they make, so they know what they're getting into." Another added that, "Some leave when they find there's not much money to be made." Two other students said they did not know if salary was a motivation.

Another aspect of motivation, that of credentials and peer acceptance, surfaced in response to this questioning. Since pastors are generally highly respected in some West African societies and since anyone can appropriate the title, it is important that they have been professionally trained and have credentials. Three of the students raised this point, one saying that, "Also you have to go to school to be considered a real pastor by other pastors and those in society." Related to this, another noted a negative motivational aspect to TEE, mainly that it is not seen as a "real school" and people don't give the students as much respect as they would if they went to a campus." Similarly he noted that, "People like the title "Pastor" and that this also is a motivation.

Satisfaction. All the interviewees expressed satisfaction with the courses, giving a number of reasons. In particular, they felt that the courses were practical, improved their knowledge and helped them do their work better. Two commented that their congregations had noticed their improved teaching and knowledge. One said that the courses, "...helped improve his preaching by improving his arguments" (the reasoning in his explanations) while another said that they "...helped me develop my mind. I was no longer close-minded but could think about all kinds of ideas." Participants also cited improvements in their understanding of the Bible and how to

do their work. One student said he liked preparing the lessons ahead of class so that he could ask questions, something different from his previous experience.

Dissatisfaction. In general students had only a few complaints about the program. The most common was the fact that they had no access to a library or reference books. Two also noted that the books were difficult for them to read, especially because of vocabulary. Two of the students complained that their courses were overly difficult and rapid, and that they had to travel too far to attend. This was because of the differing schedule of their particular classes. Instead of meeting about once a week to treat one chapter, students in this situation are required to prepare the whole book, travel to another city and attend eight hours of seminars for three days. Finally, one student said he sometimes disagreed with the books' content, especially doctrines expressed there.

Summary

The participants saw the TEE program as a means of educating pastors and tended to describe it in terms of its attributes, rather than as an extension program. They believed it to be separate from that of the seminary, although some thought it to be a feeder program. Students saw TEE as a means of educating pastors, enabling them to acquire knowledge and skills they needed for their

profession. This was the primary motivation they expressed for enrolling in the program. A secondary motivation was a desire for credentials verifying their training and the acceptance that they would receive from their peers. In addition, the participants felt that most students did not enroll in the program simply to gain skills for wage earning.

All the participants were satisfied with their experience, noting that the courses were practical and improved their working knowledge and skills as pastors. They also felt that the studies augmented their understanding of the Bible. They expressed little dissatisfaction with the program, noting that they needed more study resources, such as a library. Two noted difficulty with the vocabulary in the books and another two were not happy with the compressed nature of the courses they attended.

TEE Teacher Interviews

Student Characteristics.

Teachers were asked to characterize TEE students in a general way, perhaps noting how they differ from American students. The question was phrased in this manner not to promote evaluation of TEE students in comparison with American students but rather to help the teachers focus on contrasts they had noted in West Africans. Unfortunately, only the researcher and one other teacher had had much previous experience with American

students of about the same age. Nevertheless, teachers were able to cite contrasts based on their own general knowledge of Americans and American culture.

Prominent among their descriptions was that TEE students are very serious about their study and work hard at it most of the time. Teachers felt that this came from students' sense of a strong calling to their vocation and from a desire to "be knowledgeable and apt", to be respected by their teachers and peers. Another suggested that because TEE students have to overcome so many difficulties to receive an education, they value it greatly and consider it a privilege. Still another described the same characteristic in terms of having "a great desire to learn, maybe even greater than Americans." They expect to give a great effort to learn and "don't have to be entertained." They are also like American students in that, "They want to succeed, are impressed by knowledgeable people, like to eat and socialize, and they care about others."

The teachers remarked that while students initially were very formal in the classroom setting most of them come to like the informal, highly interactive teaching style often found in TEE classrooms. One teacher felt this was truer for urban students than for rural ones. He stated that "rural students are content to listen" but that urban students want more interaction. Those who had

attended high school or a university were also more prone to interact as were those who had already taken several TEE classes. This was supported by one of the cultural consultants who remarked that; "School is formal. The teacher is 'king' and the students must be serious, not informal. But when the teacher changes the atmosphere [to informal], the students become more enthusiastic."

Concerning the students' understanding of the role of the teacher all the instructors said that they are seen as "a repository of knowledge and wisdom." "They see the teacher as one who imparts knowledge - a specialist who gives lessons of value." As evidence for this, one noted that students are not happy when their questions are answered with another question, a quality he thought was true even for university level students. Another noted that at first students always assumed she was just going to lecture, to provide information. She noted however, as did another instructor, that most students take quickly to the idea of teacher as facilitator of learning. One teacher posited the explanation that expecting only lectures grows in part, from their experiences in public schools where teachers very much take the lecturer role.

Attitudes and behavior of students as seen in their interaction with teachers included a high respect for the teacher, shown by the use of formal greetings and standing up to respond to a question.

They all acquiesce easily to the teacher and rarely joke. Many want to carry the teacher's briefcase or books when he or she arrives at the class. The woman teacher observed that, while generally, "They feel a male superiority over women. Only once was I questioned about my role as a teacher of men, but when I pointed out that I was probably twice their age, they were willing to accept my authority. I have felt at other times that there was a strain in the beginning until my own attitude was clear to them." One of the consultants observed that "If teachers can turn the classes informal, it improves learning. Some teachers try to do this, but only a little bit of it goes on."

Two of the teachers observed that some students will on occasion "play the school game." One noted that this behavior involves doing the least amount of work, making invalid excuses for assignments not completed, "buttering up the teacher" and seeking sympathy as a means of avoiding responsibility. Another felt that such behavior was linked to assignments or activities that were perceived by the student as not having much value.

Teachers were asked if they had observed approaches to outside assignments that are different from American students. A common theme running through the responses was that homework was "not very creative." "They like homework that requires less creative kinds

of writing and like homework that requires them to find the answer"
said one. Another teacher expressed this idea by saying, "They have
trouble exploring a subject, that is, creating new ideas." Another
was more specific in noting that, "They have trouble if they must
generalize, summarize or give personal opinions." This observation
was repeated by almost all of the teachers, another remarking that,
"They have trouble generating ideas or answering questions that
require evaluation. Questions like: "Why did the person say that?,
What do you think about that? Do you think he's correct?" There is
reason to believe that this last statement is linked to part of a larger
cultural "learning set" that may be common in traditional,
collectivist, societies and brings to mind the observations reported
in the Flowerdew and Miller research. This idea will be explored
later.

A related question concerning students' preferences for particular
kinds of outside assignments was also asked. Teachers responded
by saying that students prefer rather precise, short ones that involve
specific, concrete answers. This seems to be linked to the previous
observations about creativity. The remark of one teacher to this
effect was,

> They feel more confident with smaller assignments. They're
>
> afraid of something with a lot of writing. This is seen in the fact

that they give short answers, one or two statements and think

that they've answered the question. University level students

often believe that if you give a definition, you've answered it.

Another added, "Definitely concrete answers to concrete questions."

The teachers all agreed that, in general, the students preferred

outside assignments done in groups rather than individually.

Another set of questions probed the observed nature of students'

interaction with the Caribe books, especially those that might be

evidence of cultural discontinuities. Here, teachers noted that while

the students are able to work in the books and gain a lot from them,

they also have some difficulties. They noted problems with

vocabulary in the books and their preference for the frame questions

that usually just require them to copy items from the text. In

contrast, they seemed to find the short answer questions more

difficult, especially if, as one instructor noted, they, "require them to

analyze and put together new knowledge. They're not comfortable

with this."

Perhaps the best description of student/book interaction was

given by one of the most experienced teachers:

The books are informationally dense. When students read them,

the information piles up and they can't keep track of it. The

books are not practical, more like reading a reference book. A

topical book would be better. The students have to scrutinize the book so much they miss the 'goodies' - the big, important ideas and concepts.

The cultural consultant concurred with this.

Concerning book content that students might find unfamiliar or uncomfortable, teachers felt that this varied from book to book with some subjects being relatively well known by them and others almost completely foreign. One said that, "Much of the content is not applicable to their situation" and is "often outside students' experience and needs." He noted, however, that this varied with students' educational level and that sometimes the problems lay with text or questions that were "vague and difficult to answer, even for me."

Concerning students' criticisms of the books, it was noted by teachers, and one of the consultants, that it rarely happens. "Books are authoritative and most feel incompetent to criticize", said one. Another offered that, "The students don't express criticisms of books. Instead, when they encounter parts that are beyond them, they memorize around it.." The only exception was, "...a book's explanations of Biblical material. If it disagrees with their own, they're uncomfortable."

In the area of student learning behavior, instructors were asked to characterize students' principal learning styles or modes. They agreed on two points: (a) students like to memorize and, (b) they generally like to deal with specific, concrete subjects. This was reflected in comments like: "Students are concrete and not abstract thinkers. They like to deal with what's there. When they see an answer in the book, that becomes *the* answer", and "They want answers to specific questions rather than broad ideas. They will press for specific answers if you only offer principles."

Other teachers approached the question from different perspectives.

> Students tend to copy the ideas and behaviors of those they hold as authoritative or standard bearers. It's like the master-apprentice interaction, show and tell. Doing takes precedence over knowing. What's in the book is less valuable than what someone does.

Another saw style preferences in terms of orality and literacy, saying they "would do better in an oral, group setting and talk about it. They don't write well, and in school they basically are asked to write back the answers given in the book or class. Reading and writing are not their preferred way of doing things."

Finally, teachers were asked to report examples of cultural discontinuities they had observed. They cited a number of areas

including that of differences of orality/literacy orientation. According to one, students sometimes have difficulty with implied details in written questions or instructions. An example of this was given by another: "In an essay quiz where about ten students had to choose six of ten questions to treat, none followed an order in answering." That is, the students wrote their responses in small notebooks but did not arrange them in the numerical order of the questions, perhaps answering question five first, followed by three, nine, ten, four, and two. Another area of discontinuity was suggested by one teacher: "There are differing values for time and rules. We (Americans) abide by a stricter interpretation of rules and adherence to time and schedules."

All of the teachers cited examples of cultural misconnects involving certain kinds of questions, mainly those that called for students to evaluate something. "A major problem is that they have trouble evaluating. If you ask students to tell the weak and strong points of a book, for instance, they only criticize it. The don't seem to be able to present a balanced view." Another said, "They don't judge (evaluate) methods or materials." In general the teachers agreed that students avoid evaluation because they have had little occasion to practice it, and because they do not see themselves as authoritative enough to pronounce a judgment.

Summary

Students work very hard because they want to be competent, to be respected by teachers and peers and because they value learning. They tend to be quite formal in classroom behavior, although those who come from urban settings accommodate themselves better to the informal manner of American teachers. This formality was evidenced by standing to respond to questions, carrying the teacher's materials to the classroom and unwillingness to disagree with her or him.

Teachers reported that students were "not very creative" with assignments outside the classroom, showing difficulty with creating new ideas, evaluating thoughts or ideas of other people, and generally preferring assignments that required them to "find the right answer" and to respond with minimal writing.

The instructors cited difficulty with vocabulary as one of the principal problems students encountered in the Caribe books. Some also felt that students preferred the frame questions to the short answer ones because they mostly required the learner to just copy down an answer from the text. This was because, one teacher said, the short-answer questions required students to "analyze and put together new knowledge."

Concerning students' preferred modes or styles of learning, the teachers agreed that students preferred specific, concrete subjects to broad conceptual ones. They mainly approached learning by memorizing what was presented. One added that the learners seemed to like a modeling approach as well.

In the area of cultural discontinuities, the instructors noted differences in adherence to time and schedules, reticence when called upon to evaluate something, and less need for order in arranging their schoolwork.

Classroom Observations

Observations were carried out in 16 sessions of four different courses, "La Vie et Ministère de Christ", "L'Evangile et les Epîtres de Jean", "Survol de l'Histoire des Eglises Baptistes dans le Monde", and "Apporter la Bonne Nouvelle aux Musulmans." The first two courses were taught by the researcher at two southern TEE centers and notes about observations were drawn up after the courses were completed. The last two courses were taught by two other teachers at a northern center. Notes were taken during observation and later summarized. The observations centered on four kinds of behavior: (a) the organization of the seminars, (b) the nature and structure of communication, (c) implications of students' questions and

comments, and (d) examples of cultural discontinuities, especially as they might relate to Tharp's model.

The value of the classroom observations was somewhat limited in terms of the detection of cross-cultural discontinuities. This was due to the fact that all of the teachers were quite experienced in working with African adult students and compensated, often unconsciously, for cultural disconnects. Complementary to this teacher behavior was the fact that most of the students had already taken a number of courses under the same teachers and were quite adept at interaction with an American. The exception was found in the history course where one of the students was new and the others had not had many courses. Nonetheless, useful observations were made.

Seminar Organization. The first two courses were organized into six sessions about two weeks apart. Sessions were broken into two to four instructional periods depending upon the content and nature of the learning activities. Sixteen students completed the first course and nine the second. Classes were held in a rented room and in a small church auditorium. Classroom furnishings consisted of two small rough tables, benches, and a small blackboard propped on a chair. Students prepared a chapter at home before each session.

Each session began with a roll check and general announcements. This was followed by a number of learning activities including lectures, question and answer sessions, general discussions, group learning activities, and individual presentations. Students also did individual projects that were evaluated by the teacher at the end of the course. The projects included reports, analysis of information presented in frame charts, preparation of a small study guide, or written sermons. Evaluation of individual presentations and completion of work in the books was also done.

The other two classes met in four sessions daily over a three-day period with three students in one course and four in the other. Sessions began with a few moments of informal conversation, a short test drawn from material in the textbook and occasionally a question left over from the previous session. From there the styles of the sessions diverged, one becoming more of a lecture with questions and some discussion, the other becoming an ongoing discussion with the teacher periodically inserting a new topic or variation on the subject. She also acted to help students recapitulate their points and weave them into the larger, ongoing themes she wanted to treat.

One of the classes met in a small classroom with a large table and chairs. The other met under a covered porch using a picnic table and a blackboard suspended from the roof.

<u>Communication.</u> All courses were carried out in French, with occasional exchanges in African languages. The nature of communication in the classes varied considerably in kind, in frequency, and in students' participation. The courses taught by the researcher were planned specifically to use communication formats conducive to the nature of the desired learning. Thus, while new information was largely conveyed through lecture and handouts, analysis and synthesis were fostered through small group discussions with reports to the group and whole group discussion of questions or statements with conclusions noted on the blackboard. Individual learning and ideas were often conveyed through student presentations to the group. It is interesting to note that students were not used to the idea of setting a learning or communication goal for a presentation. Even though asked to make the goal clear and to seek feedback concerning its accomplishment with the listeners, they frequently had to be reminded to do so. Individuals sought new information by asking the teacher or other students spontaneous questions. Students would also occasionally test the validity of ideas through the use of questions.

The communication in one of the two northern classes was characterized by a pattern of questions asked by the teachers that precipitated a vigorous discussion among all. When the discussion started to reach a conclusion, the teacher would insert either a new question or another aspect of the previous one. This started a new round of discussion that continued until it reached its natural conclusion, then a new question was raised. The questions centered on a book that the students had read prior to the class. At key points in the discussion the teacher would make notes or lists on the board to recapitulate ideas or perhaps cause students to regroup information. At other times the teacher would make a point by relating examples or recounting an event pertinent to the subject. There was a high level of interaction and communication among all the participants.

In the other northern class, communication generally followed a cycle based on questions that students had answered in their books prior to class. The teacher asked a student to read a question from the text and give his answer. If the student responded appropriately the teacher would add comments or clarifications, then go on. If students were not sure how to answer or seemed to have not grasped some aspect of the question the teacher would ask a clarifying question or make clarifying comments about the question

and response. Clarifying questions were sometimes intended to get students to hypothesize or analogize. For instance, concerning an aspect of the reformation in Europe, the teacher asked, "What would so and so have done in this situation?" In another case when a student did not understand an issue the teacher used an illustration drawn from agriculture. Occasionally the teacher would draw a chart or illustration on paper to help students understand.

Students would sometimes ask clarifying questions or make comments about the text or something the teacher had said. In general, however, they limited their communication to questions. The new student spoke very infrequently and usually only in response to a question posed by the teacher.

Student Questions and Comments. In the two southern classes the majority of student remarks were questions that usually sought additional information or elaboration of detail. Questions such as, "What did people eat in those times?" or "What does it mean when it says...?" Frequently questions involved links between two Biblical passages that perhaps involved similar terminology or concepts. Similarly students sometimes sought through questions to resolve conflicts between book statements and their own understanding or beliefs. In general, questions and comments were characterized by lower order cognitive processing, but some called for higher order

thinking. The cultural consultant who was a teacher felt this was generally true about students.

For the most part, the students' questions and observations reflected a good understanding of the material being treated in the course. This was reflected in the fact that questions usually sought more information about a subject rather than attempting just to conceptualize or define it. Good comprehension was also seen in the responses to questions in the course books. The most significant indications of overall good comprehension came in individual presentations and course projects. The presentations and projects usually centered on subjects dealing with application of the material to the students' role or working situations. Indeed, the students seemed to prefer this kind of application of the material to more academic or theoretical uses. Choices in course projects also showed this preference. These choices suggest that motivation for taking the courses is related to the students' work and that course design should take this into account.

The comments and questions of the students in one of the northern classes reflected both lower and higher order thinking with more analysis, synthesis and evaluation than in both the southern classes and the other northern class. This was often because of the kind of questions asked. For example, a question concerning

differences and similarities in communication strategies used with followers of Islam and of traditional African religion produced a strong discussion. One student immediately began to contrast differences between the two groups, an analysis activity. Another joined in to add other ideas to the list, which the teacher began to write on the board. In another instance, analytic and evaluative thinking was seen in a student's rebuttal of a teacher statement. In addition to instructional strategy, other factors influenced the kind of thinking observed in the class. For instance, the students were older, experienced adults who were finishing their course of study. In addition, they had taken a number of classes with the teacher and so were quite familiar and comfortable with her style of teaching. Finally, they were dealing with a familiar subject that played an important role in their everyday professional activities.

It was obvious that the students in the class had a very good grasp of the subject matter and could manipulate aspects of it with ease and approach it from different perspectives. They could have easily taken different sides in a debate. That they found the content applicable to their work was evident by their comments, questions and examples. Many questions dealt with specific problems or situations they were experiencing and they frequently cited personal

experiences as support for statements they made. As with the southern groups, motivation seems strongly linked to their work.

In the other northern class the nature of student comments and questions was rather restricted because of the communication format and the subject of the course. Most comments were in direct response to questions asked by the teacher or those in the text. Comments centered on giving information requested, statements of understanding, or confirmation that the student had grasped an explanation. Occasionally, students asked questions to confirm their understanding of the teacher's statement or of statements in the text.

The degree of the students' comprehension was not readily observable but the nature of their comments and questions suggests that it was limited. Questions often centered on obtaining basic information and comments were usually short and frequently couched in terms of the immediate text, the student paraphrasing a sentence or the teacher's explanation. Several things explain this behavior. While the students in the other three courses were classified as being in the "average", "advanced" or "upper" levels of the program, based on their educational achievement and a French language proficiency exam, all of the members of this class were "fundamental" students. Thus they had spent less time in school

and had lower language proficiency than the others. In principle the textbook compensated for this by using shorter, easier texts, but it was obvious that for some the reading level was difficult.

In addition, the simplified text treated a relatively unknown subject, the Protestant reformation in Europe, in a highly decontextualized manner. This limited significantly the students' ability to construct adequate meaning from what they read. Given the problems of reduced language proficiency, reading difficulty, an unfamiliar subject and somewhat abstract treatment of the content, it is not surprising that comprehension might be limited.

Though there were no obvious indications, it is safe to surmise that students, for the most part, had difficulty finding ready application of the content to their work. It is simply not very relevant and comments from other instructors indicate that this reaction to the course has been voiced by other students. This raises a question of motivation and how it might be improved.

Cultural Discontinuities. A number of cultural disconnects were observed in all of the classes and some of these can be couched within Tharp's model of psychocultural variables *of social organization, sociolinguistics, cognition, and motivation.*

Social Organization. In the southern classes, it was observed repeatedly that students preferred sitting on benches and facing the

teacher, to sitting around a table. The use of benches is a common practice in West African schools and adults often refer to their time in school as "When I was on the bench." Other teachers have also noted this preference for aligned bench arrangements. In contrast, this did not present a problem for the classes in the north, either because the students had become accustomed to the arrangement or because no choice was given. Of the two northern classes observed, however the students in the history course appeared markedly less at ease sitting around a table than in the other. This was evidenced by their tendency to sit up rather straight and to fold their hands in front of them on the table. They avoided leaning on the table or scattering their books and papers around. They did not joke with each other, and talked infrequently, in quite tones.

Sociolinguistics. American teachers often prefer a great deal of interaction between students and between teacher and students. While students took readily to interacting with each other, it was apparent in both the southern and one of the northern classes that free interaction with the teacher was more uncertain ground. In fact, some students, especially new ones, would usually rise to their feet and speak in a very formal manner to respond to a teacher question. It appears that, in general, students become more comfortable with informal student-teacher interaction as they take

more courses. Nevertheless, they usually do not achieve a comfort with it that would be found in most American classrooms.

One aspect of a sociolinguistic nature was noticeable by its absence: only once did a student challenge a teacher's statement. While they may, upon occasion, express disagreement with statements in the books it would be extremely rare that a student, even though an adult, would argue with the instructor. In the case observed, the difference of opinion was expressed in a quite respectful manner.

Cognition. As was seen in both student and teacher interviews, there is a propensity for students to use lower order cognitive processes. The researcher noted that students had difficulty understanding an explanation of the sources implied in the writing of the synoptic Gospels. This involved understanding an explanation of how biblical authors had used their own sources as well as each others' to write their books and how certain aspects of this could be implied from duplications of texts between some and not others. Other sources could be inferred from unique passages in each writing. Grasping the passage required analyzing several lines of thought and recombining the ideas into an overall view. The students understood only after the teacher had constructed a

concept map of the explanation. The cultural consultant teacher likewise agreed that this kind of thinking was difficult for students.

The propensity for certain kinds of cognitive processing was also indirectly suggested by the choices students made in course projects. Four activities were presented to the members of one of the southern courses:

1. Choose a doctrine found in a biblical text, then find all the verses that support it and explain how they do so.

2. Write a sermon with practical application.

3. Describe a false belief common to where you live and refute it.

4. Develop an eight week lesson plan for teaching about a book of the Bible.

Of nine students completing the course, none chose the first or third options, both of which require a great deal of analysis and synthesis. Whether this reflects the amount and kind of schooling they have experienced or, as will be argued later, a psychological pattern common to highly oral societies is not clear. Regardless, the interview and observational evidence, as well as that drawn from the talk-aloud protocols, treated in chapter 6, suggest strongly that preference for certain kinds of cognitive tasks is a cultural feature.

Motivation. Suggestions have already been made that motivation of the learners seems to be strongly related to job role and practical application. It should be noted, however, that many students also expressed a high degree of interest in the subjects and seemed to enjoy discussing them for the pleasure of exploring them.

Summary

Classes varied in size from three to sixteen students and met in a variety of places including a church auditorium, small rooms and around a picnic table. Activities included questions and answers about texts, group discussions, small group activities, individual presentations and lectures.

The classes were conducted primarily in French but with some interspersing of African languages. Communication was mediated through handouts, blackboard use, group discussion (both large and small), individual and group presentations and question/answer sessions. In some classes communication was initiated more or less equally by both instructors and students, while in one it was initiated primarily by the instructor. In another class the communication followed a cycle: question, discussion, conclusion, new question.

Students' questions usually were directed at seeking new information or to clarify and/or elaborate details. Sometimes they

sought to resolve a perceived conflict. Generally, the questions reflected a good comprehension of the material but were often of a lower cognitive order. Only a few questions sought to analyze content, synthesize concepts or evaluate ideas. In one class this was not the case. There, often because of the teacher's phrasing of a question, students did much more analyzing and evaluating, sometimes even rebutting the teacher's statements.

Chapter 6

Think-aloud Protocols

Introduction.

As was noted earlier, Vygotsky and Luria (van der Veer, 1994, pp. 46-72, 99-174) proposed a model of cultural development in which many psychological structures act as systems for mediating between a person's inner self and his or her surroundings. These systems work together to process and interpret incoming information, construct meaning and provide the means by which individuals act on their environment. They are the means by which we navigate the landscape of objects, people and situations that we continually encounter.

As these structures develop in children, they take on a form that reflects their culture. Indeed they are often expressly shaped by members of that culture, particularly parents and other relatives. Perhaps most prominent among these is language, but other, more subtle structures develop that are highly specific to the culture. Indeed much of what we would call "culture" is embodied in these psychological mechanisms, whether they be ones that inform music composition, determine the manner of automobile driving or how and where one member of a given society may touch another. They are,

as one researcher has said, "the fabric of meaning" (Dr. Robert Fox, lecture, the University of Oklahoma, September, 1995).

We can interpret Vygotsky's psychological structures in terms of schema theory. As Thompson (1998, p. 7) has observed, "Culture can be seen as a body of knowledge contained in schemata whereby culturally appropriate behavior is generated." Members of a common culture employ very similar schematic systems that allow them to process information in more or less the same ways and provide a foundation for mutually comprehensible communication. Taken together, these common systems embody the group's worldview. Redfield (1956) provides us with a good definition of worldview and its elements and contrasts it with other concepts.

> The culture of a people is, then, its total equipment of
> ideas and institutions and conventionalized activities.
> The ethos of a people is its organized conception of the
> Ought. The national character of a people, or its
> personality type, is the kind of human being which,
> generally speaking, occurs in that society. The "world
> view" of a people, yet another of this group of
> conceptions, is the way a people characteristically look
> outward upon the universe...It includes, among other
> things, recognition of the self and others; groupings of
> people, some intimate and near, others far and different;
> some usual ways of confronting the inevitable
> experiences of the human career; a confrontation of the

Not-Man *(everything that is not me)* seen in some ordered relationships of component entities, this Not-Man including both some observed features such as earth, sky, day, night, and also invisible beings, wills, and powers. (pp. 85, 94)

Vygotsky's fundamental model remains a very useful one for understanding many aspects of cross-cultural interaction. Most importantly, the essential nature of cultural discontinuities is seen when psychological structures elaborately developed to navigate a specific cultural environment suddenly encounter a different one. The mediating mechanics can malfunction or break down completely causing construction of meaning to be blocked or deformed and attendant learning to be impeded. Such breakdowns were evident in the think-aloud protocols and seem to occur in four areas:

1. Differences in the worldviews of authors and learners.

2. Culturally specific knowledge and conceptualizations.

3. First language linguistic intrusions.

4. Cognitive processes.

Worldview. Americans, broadly speaking, hold a scientific view of the universe. They believe it is essentially material in nature, governed and evolving according to inherent, observable laws that yield

predictable behavior. They believe the universe can be analyzed, divided into components and manipulated to the ends they see as important. Most westerners feel that history is linear in nature and that societies can develop in a progressive manner. Individuals are unique and consequently to be highly valued. Each person's potential should be developed as much as possible and personal freedom is inherently necessary for such a process to take place.

Discussions with the cultural consultants and other West Africans bring to light their very different worldview. Many Africans see the world as a created material and spiritual whole, directed by both natural and spiritual forces that predetermine much of what occurs. They believe that it should be manipulated only cautiously and that the results of such are not very predictable. For most West Africans, history is both circular and linear, but only vaguely known. A stable, harmonious and little changing society is desirable. In most African thinking, the value of individuals can only be understood in relation to their role and contribution, as subordinates, to the larger group. Personal freedom is severely limited by the group's values, traditions and expectations. The development of personal potential must not take place without reference to one's group and must never take precedence over what is perceived to be the group's well-being. Worldviews are inevitably

reflected in a society's literature and discontinuities between the content of the passages used in this study and the participants' process.

World view differences were reflected in interpretations given to certain passages, such as the following sentence from La Réforme et le Protestantisme: "This spirit of thinking gained many scholars who, in their turn, contributed to the laying of the foundation of the reformation" (Estep, p. 9). ("Cet état d'esprit gagna quantité de savants qui devaient à leur tour contribuer à poser les fondements de la Réforme.") One student's response to the phrase was: "Hmm, so from this time on the spirits (spiritual beings) set themselves to causing something in the heads of the scholars. That contributed to the laying of the foundations of the reformation." ("Umhum, donc à partir de ce moment donc les esprits se sont mis à penser à faire quelques choses dans la tête des savants. Cela contribuait à poser les fondements de la Réforme.") Rather than seeing a change in mentality ("etat d'esprit) produced by public discussion and debate, the student, keying off the word "esprit" (which can mean either spirit or mind), understood the passage in terms common to his own world view. Similarly, conceptualizations of the supernatural do not always correspond. One participant wanted to know how the ancient Sumerians knew their gods had human bodily form. In many African

religions the gods and spirits do not take on human form or if they do, it may be that of a person who is physically deformed or crippled.

Another student showed similar recourse to a feature of his worldview in interpreting a sentence from a passage about Christian counseling. The author of the text, in developing the concept of an ever increasing and comprehensive personal development, expressed the idea that Christian counseling seeks to help individuals attain their highest potential as created beings. The participant understood this to mean, "...it is desirable that every person might attain the place where - the person can attain according to the destiny of God" (Arnett, p. 5). ("...elle veut que chaqu'un atteigne la ou la personne peut atteindre selon le destin de Dieu.") Destiny is a common conception in many African societies which often supposes that much of a person's life is predestined even before he or she is born. This contrasts sharply with the western notion of the open-ended development of individual human potential.

Culturally specific knowledge/conceptualizations. Redfield (1956) notes that the culture of a people is its total equipment of ideas, institutions and conventionalized activities. Differences in these areas were also seen in the protocols, primarily manifested in students' difficulty with vocabulary in the texts. This reflected unfamiliarity with ideas and conceptions developed outside their

cultural experience. Westerners, though they might not know precise definitions for them, would at least be somewhat familiar with references to Hammurabi, radioactivity, medieval society, and renaissance architectural terms such as a vaulted dome. These terms, however are hardly common in West African cultures and presented major obstacles to understanding accurately the texts. As a result the participants frequently made statements like, "Radioactivity, I've heard it (the word), but I do not really know what it means." or "Frescos, what are those? Are they confessions? Objects? Mosaics?" In the last case, the subject finally decided that frescos were a kind of building material.

Difficulties also surfaced when more abstract conceptualizations related to science, philosophy, and religion were either not present in the reader's thinking or existed in a different form. For example, after reading the sentence, "Geologists cannot say with certainty if, during its creation, the earth was in a molten or solid state.", one subject commented, That's strange..., oh well, whatever." The concept of "medieval man", an historical concept, was understood by another as "primitive man", an anthropological idea. Similarly, Western theological terminology, based upon Greek philosophical concepts, does not always connect with the basic notions of African Traditional Religion, causing the readers to labor at constructing a

workable meaning. When he encountered the sentence, "The meaning and nature of man's present and future existence are closely linked to questions of the reality and nature of God", one of the most capable participants replied, "What does *that* mean?" The problem of his lack of understanding seemed to stem from unfamiliarity with the kinds of subjects and reasoning found at the core of Western philosophical and theological systems.

Linguistic intrusions. A most interesting finding surfaced in a number of responses coded as "misreads." Of 33 such responses, 20 reflected errors involving adding, deleting or substituting articles such as "la", "les" or "des." One student, for instance, inserted the article "la" before the plural noun, "mathematiques." Another changed "ces (these)" to "les (the, plural form)" and the phrase, "...finally come to rest to make up strata" to "...finally come to rest to make up *the* strata." The reason for these errors is not clear but it may be the result of linguistic intrusions from the readers' first languages. Thus, where a French sentence might not require an article before a noun, the first language (L1) might and the reader unconsciously supplies it or conversely, where French articles have no equivalent in the L1, the article is dropped.

Such intrusions are commonly referred to as *language transfer*. Their existence and origin has been the subject of much research

and discussion (Odlin, 1989). Another explanation for the misreads may lie in the phenomenon among second language learners, known as "overcorrection." Here a feature of the new language may be used too frequently or overemphasized in some other way.

Similar intrusions or omissions may be present in phonetic or verbal aspect areas, but the data from this study are insufficient to determine it. The investigator noticed, for instance, that students rarely used conditional forms of verbs when speaking in French even though these forms are quite common in other Francophone settings. This may reflect an infrequent use of the form in the L1 or some other cultural constraint such as avoidance of imaginary propositions; i.e., "If I were a giant butterfly, I would..." Similarly, some mispronunciations of words may reflect conflicts between the phonemic structures of first and second language.

Cognitive reading behavior. The distribution of coded responses is shown in Appendix D. Using the seven categories of Langer's model of meaning construction, we can develop a profile of the cognitive reading behavior of the participants. In the first category, *reasoning operations*, the students' responses clustered in three areas: (a) questioning (37%), (b) metacomments (33%) and, (c) using schemata (14%). Questions were frequently related to unfamiliar vocabulary or concepts. An example was the response one

participant made to the sentence, "Another theory suggests that the earth was formed by an accumulation of bodies in a solid, cold state." The student asked, "but where did this body come from? Already solid." It appears that he had difficulty picturing the process, a fact noted by his unconsciously changing the word "bodies" to the singular form. Similarly, in response to a passage concerning Sumerian creation myths, another asked, "How? How could a primordial sea give birth to the universe?"

The rest of the responses were rather evenly scattered among the other five operations: hypothesizing (3%), assuming (6%), citing evidence (2%), and validating (5%). Hypothesizing, which occurred frequently in Langer's studies, played a very small role in the participants' reading activity.

Three kinds of monitoring activities - awareness or usage of lexical elements, statements of meaning or refinements of meaning - accounted for 86% of the responses. It should be noted that one participant accounted for 39% of all the lexical responses. Without this value, lexical responses account for only 27% of monitoring behavior. While the lexical activity is significantly higher than that found in Langer's studies the level of stating and refining meaning was lower. Setting task goals (such as deciding to search for additional information or answers to questions in the following

sentences) and attention to mechanical features of the text accounted for the rest of the monitoring activities. Setting task subgoals and being aware of features peculiar to the genre of writing were not represented in the responses. The high incidence of lexical monitoring is important because it signaled a great deal of unfamiliar vocabulary. Many of the meaning statements consisted of close paraphrases of sentences while the revision of meaning activities centered on correcting initial comprehension or integrating the content of a sentence with that of the previous one.

Among the participants the most common strategy activity (97%) was formulating meaning. This involves integrating meanings that have been constructed in the reading with previous knowledge and then perhaps synthesizing these into new, more inclusive understandings of the knowledge that has been gained.

An analysis of text unit showed that over 97% of the responses reflected a focus on a local aspect of the text being read. Similarly about 94% of the responses involved a concern with the product of meaning construction rather than the process. Viewed over time, responses generally increased from the first to the second third of the text then diminished during the last third. That is, as the participants moved through the text their responsiveness, and presumably their engagement with the text, increased. This was

more pronounced with the reasoning operations and strategy use than with monitoring activities. In the area of knowledge, sources involved in meaning construction, the participants relied almost exclusively on the content, making only one reference to textual features and none to genre characteristics.

The analysis of the interaction between the texts and the participants provides an interesting and useful look at what happens when the culturally generated schematic structures of American writers and West African readers meet. Worldview assumptions may not coincide and the resulting understanding can be deformed. The absence of culturally specific knowledge and/or conceptualizations can leave learners without important components they need to adequately comprehend the text. Similarly, subtle linguistic factors can intrude into the process if the learner is working in a second language. On the part of the learner this may mean changing or omitting, perhaps unconsciously, certain grammatical, lexical or usage aspects of the text, thereby limiting or modifying its meaning. On the part of the writer this may mean assuming that the use of certain linguistic features, such as modal verb forms in English, will be understood correctly by the reader. Finally, reading cognition patterns used by readers in the writer's culture may differ from those

of the recipient's culture and fail to evoke cognitive processes necessary for adequate development of meaning.

Follow-up Interviews

The results of the talk-aloud protocols led the researcher to formulate new questions concerning the students' interaction with the books. The questions focused on their experiences in learning to read, their perceptions of the Caribe books and their study habits while using the books.

Learning to read in elementary school. Reading instruction begins for most West African children in first grade, since the practice of reading to children in the home is not common. Classes are generally large, frequently exceeding 100 students. With the exception of some parochial schools, students learn to read French, a language that they usually do not speak or understand until they encounter it in school. This was the case for all the participants. They described the same general pattern and kind of reading activities in school, beginning with learning to name and write letters. The activities were usually presented in a beginning reading book or more likely, on the blackboard since many students cannot afford the books. Students called the letters aloud then wrote them on slates or in small notebooks. They also practiced numbers and drawing simple figures. Because he had rarely seen someone read

before, one participant remarked that when his teacher wrote words on the board and read them, it "...seemed an extraordinary thing to me." From letters, students progressed to reading simple words and sentences, again mostly on the blackboard. One of the cultural consultants observed about this process that, "[the] words are not real. They have no meaning. You just pronounce them." He also noted that while most reading is done from the blackboard, books are also used.

In second grade students continued reading instruction by working on the board, slates and notebooks and in a textbook entitled "My Second Reading Book." Similar practices continued through the elementary levels of schooling. Most of the participants expressed an enjoyment of reading, which they had had since they began. Three commented that motivation to read among schoolchildren was mostly driven by this interest in reading and by the teacher's encouragement and the use of games and songs. Children who did poorly or who were not prepared were sometimes struck on the hands with a small stick or switch.

Junior High School. In junior high school reading instruction involved "more serious work" as one participant explained it. Reading was done in all course work as well as in a class called "Explaining Reading." He explained this class by saying that, "You

read and they (the teachers) explain." The participants also studied world literature in which students read in class and "the teacher explained hard words and the text." Students seemed to indicate that throughout their school career a great deal, perhaps most, of their reading was aloud. The significance of this will be treated later.

Two of the participants remarked that, in the classes, the works of African writers were easier to understand than those of French writers. They both offered that this was because they wrote about more familiar subjects and used simpler vocabulary and grammar. This last may represent, in part, differences in the French dialects of Europe and West Africa. One of them also noted that the TEE books were difficult in the same way although he was not persuaded that using African writers would automatically correct the problem. A third student, however, felt there was no significant difference in difficulty between the sources.

<u>High School.</u> Choosing a study track is an important factor in the reading experience of high school students since it influences the amount and kind of reading they do. Tracking is a feature of France's educational system that was introduced into Francophone West Africa during the colonial period. There are three tracks: (a) the A track, or languages, including English, French, and German, (b) the B

track, which includes mathematics and physics, and (c) the D track, comprised of courses in mathematics and the sciences. One of the participants said that B and D students do not read very much and that A students "read a lot." He felt that students who choose the B and D tracks are often weaker in French than the A track students. One of the cultural consultants noted that many students would like to follow tracks B and D but cannot. Students in all the tracks take courses in French, math, philosophy, history, and geography.

In the language track, students study a great deal of French literature. Tenth grade students read literature by African and Afro-American authors while eleventh graders read French authors in addition to more African authors. Texts used in the courses are drawn from novels, articles, essays, and poems.

The participants indicated that book reports played a very important role in the courses. The books, always novels, were selected by the school and purchased, or, more commonly, borrowed by the student from a friend or the school library. A teacher, one of the consultants, added that there are really few libraries in the schools and that students frequently photocopy texts of other students in order to have what they need.

One participant described the process for reports as follows: "In high school we read novels, worked in groups and did book reports.

You begin by telling the author's name, birthday and works he wrote. Then you give a resumé of the book, or part of it, and explained the hard words." Another added that students described characters and commented on themes in the novel. He also reported explaining "hard words" which may reflect again contrasts in French dialects or the use of French as a second language. The students indicated that a great deal of their high school reading involved novels, either whole or as partial texts. Typically the courses dealt with two or three novels during the course of a school year.

When asked what high school students read they all cited newspapers, "if there are any", as one noted. Newspapers are distributed in the capitol and perhaps three or four other cities in their country but frequently are not readily available in other areas. They also mentioned novels, dictionaries, brochures, signs, and the Bible as literature that high school students enjoy. In addition they noted that soccer magazines and, "We Two", a romance magazine, are quite popular. Those who live in the capitol city can read these and other French literature from the French cultural center.

The participants all noted the relative scarcity of reading material in their environments. Because West African cultures are highly oral and among the least economically developed in the world, literature is not highly sought or available. All the participants

indicated that this affected the kind and amount of things they read as high school students.

Most of the participants indicated that time and interest also played an important role in what and how much students read. One said that during high school he lived with a relative and was expected to help out in the household in exchange for room and board. As a result he had little time for leisure reading. Another cited a contrasting case of a friend whose father was a government employee with an adequate, regular salary. Consequently the friend had more leisure time and money for reading. One student summed it up by saying, "In general some students have a lot of time to read, others have to work."

When asked how many entire books, including school texts, they had read by the time they left school, the participants' answers varied between none and thirty. One said, "I never read a whole book during school", while another, an avid reader, commented "I read maybe 30 books between sixth and ninth grade." All but one of the others indicated they had read between five and ten books as high school students. Asked to estimate the number of books read by other students, they replied with similar amounts. The numbers are rather low when compared to students in more literate societies

but as one student noted, "Students don't have a lot of opportunity to read whole books."

TEE Study Practices. The participants showed a number of similarities in their approaches in the study of a new TEE book. Most of them read through the text one time, answering the frame questions as they worked. They then did the short answer questions at the end of the chapter. There were some variations, however, with one noting that he read the table of contents first and another saying that he read the questions before starting the text. Two remarked that they began by praying for help understanding the new book, and three indicated that they read the preface before starting the main text. Another said that he read the chapter through for an overview, then reread it if he felt he had not grasped the material adequately. Although most read the chapter straight through, at least one indicated he read it in small portions with breaks in between.

Related to TEE students' lesson study habits were questions concerning their perceptions of cultural discontinuities in the books. While students initially responded by saying that they saw very little unusual or "foreign" in the texts, they made a number of observations with further probing. Specifically, five remarked that they found the format unusual and, at first, were uncertain how to

work in a programmed text. One said, "The first time I read the book, I didn't know what to do [because of the format]." Another said: "In the first book I did I had a hard time finding answers for the questions because I wasn't skilled at reading. At first I said that maybe the answers were somewhere else. I finally got used to the system in the second book. I hadn't ever done a book like that." One participant however had encountered such a format in school so did not find it unusual.

About half of the students said they found the vocabulary difficult and unusual. They explained this in several ways, one saying that it was difficult because the terms were not explained. Another felt that, "In general the vocabulary was often hard because it was related to the discipline." Another said that, "...there were certain words I didn't know because they were translated from English" and that, "The subjects of sermon preparation and ethics were new to me; I didn't understand what the books were talking about." Whether unfamiliarity with vocabulary represents just a lack of previous encounter, cultural discontinuities or both is to be debated. Two of the subjects raised issues of a cognitive nature. "Some of the devoirs [short answer questions] make you have to "imagine" the answer using your own knowledge and ability to think", said one of them. While he had experienced similar exercises in school, he felt

they were out of the ordinary. The other student analyzed the phenomenon more deeply. "Sometimes the answers are not obvious and you have to think about them." Questions requiring analyzing, or making a synthesis and so on are sometimes difficult for students; 'head breakers'. It comes from differences in educational level.... Your first reaction is that the subject of the question isn't even in the material you've had. You have to think to derive an answer. If you haven't had teachers like that then it's hard when you run into one." Observations by TEE teachers concerning this phenomenon will be noted later.

Chapter 7

Emerging Themes and Issues

Introduction

Four kinds of issues seemed to arise from the data as they were

being grouped. These are associated with worldview, linguistics,

reading behavior, and cognition. All four are closely interrelated

because they help shape the others and are, in turn, shaped by

them. To attempt to define the relationships and interaction among

them would be exceedingly difficult. Nevertheless, certain of their

prominent features were evident in the observations.

Worldview

Besides those seen in interpreting texts, perhaps the most

prominent discontinuities resulting from world view are those

associated with students' differing conceptualization of teacher role,

student role, the nature of learning, and the organization of the

learning environment. These are all rooted in more foundational

concepts of societal relationships and goals.

Before the coming of the colonial powers to West Africa,

intentional learning mainly occurred in two kinds of settings, formal

and informal (Aggor & Akwayena, 1987). Informal learning took place

in the fields, on the hunt, and in the household activities of daily

life, such as farming, cooking, singing, hunting and building. These were mostly learned by children through a watch and do approach.

More formal learning occurred primarily in storytelling, used for moral and wisdom instruction, and in institutions associated with religious practices, such as the Vodu and Afa centers of the Gbe speaking peoples of Ghana, Togo, and Benin. The centers had as a role the transmission of traditional values, religious practices, beliefs of the cultures, and the training of leaders responsible for ensuring their continuation. The pervasiveness of their effect is hard to overstate. Koudolo (1991) notes that, "The religious institutions exercised a number of functions. They kept the community in balance by their laws and moral order, protected the individual in face of outside forces, and made possible communication with the spiritual world. In general, they integrated the individual into the whole society by their structure and functions." (p. 7)

Such centers exist in West Africa today and the teacher model they provide continues to influence current societies there. This, coupled with the policies and practices of formal education imposed by European colonists, has had an extremely strong effect on the roles and relationships of students and teachers.

Teacher role. Teachers are seen as dispensers of knowledge and final authorities on the subjects they teach. They are also highly respected in African society, possessing a level of education that is quite rare, and are frequently active in community affairs and local politics. Teachers, for their part, accept this perception and it may be that their tendency to teach primarily by lecture and writing texts on the blackboard for students to copy is an expression of such. That is, they see themselves as dispensers of knowledge, as opposed to facilitators of learning. As a result, they employ teaching strategies built primarily around transmitting information rather than activities that promote higher order cognitive processes and the development of skills that facilitate the creation of new knowledge within the learner. As will be seen later, the highly oral society in which this takes place may also contribute to this emphasis on transmission.

It should be added that, while the foregoing is probably true, it is not the only factor contributing to such a situation. The extreme poverty, lack of adequate resources, and the overcrowding of classrooms (sometimes exceeding 100 even at the elementary level) also play an important role in shaping the teacher/student relationship. In addition, the public education system has been modeled largely on that of the French system with its own heavy

emphasis on transmission of declarative knowledge and memorization.

Student role. Traditionally in many West African societies, males are not considered to be adults until they are married, and women until they have children. Because of the current economic and educational situation, however, men and women frequently do not marry until their late twenties and the acceptance of people as fully functioning adults within the community may linger past thirty years of age. Until then, it is expected that "youth" will be submissive to the authority of all the adults to whom they are subject, including teachers.

In view of this, students do not feel that they are competent or have the right to question what they are told. They are not prone to challenge ideas, explore new concepts on their own or take risks involved in creative thinking and the use of problem solving. Their perception of the teacher's role and position in society, coupled with strong, sometimes corporal discipline, goes far to produce students who are generally passive and who largely view learning as the memorization of fixed knowledge.

African societies are highly communal. Little is done alone and societal permission is often required for even the most mundane activities. One does not travel without informing his neighbors or

making important decisions without the input of family and friends. The fruit on the tree in your yard may be taken by all without asking and even the most personal information is common knowledge in the town. This communality has important ramifications for formal learning. A Swedish linguist once remarked to the researcher that she would be surprised to find an African reading a book alone. The propensity for collectivist living may explain why so many students preferred having group homework rather than individual assignments. It may also suggest a discontinuity between the kinds of instructional formats used in Western generated distance education study materials and an element of cultural mind-set common among West African students. Studying alone may not be the preferred mode of learning in these societies (Wilson, 1993, p. 8).

Learning motivation in collectivist societies has not been greatly studied and it is conceivable that the Western models do not exactly describe it. Hvitfeldt's study, (1986) of Hmong students portrays a motivational mindset of a much more collaborative nature. The study seems to suggest that for these students, an important motivation was pleasing others in the group and responding to their expectations. There also seemed to be a feeling among the group that success in learning involved success on the part of every member. Similarly, in informal conversations with Asian students,

this researcher has observed many that seem to be learning primarily for the benefit and desires of their families. Their own aspirations appear to be secondary or couched in terms of serving their families. If such is true, then instructional strategies that assume personal satisfaction or competition among individuals as a primary motivation may be inappropriate for students in non-Western cultures.

Linguistic Issues

A number of linguistic-related elements surfaced in this study, including the use of French as a second language, differences between the dialects of French spoken in Europe and West Africa, linguistic intrusions from the students' first language, and questions of discourse structure.

French as a second language. A number of West African countries are former French colonies and have retained use of the language in their independence. French is the language of formal education, government, business and professions. Because the hundreds of indigenous West African languages are often localized and not understood even by neighboring groups, French has also become the means by which the peoples of the former colonies communicate with each other and with the rest of the world. It should be noted, however, that perhaps half of the people of African Francophone

countries do not speak French, and many who do speak it, are considerably less than fluent. In addition, French is often mixed with local languages so that lending and borrowing of vocabulary occurs freely. These factors are important when we consider the use of French as a medium of instruction.

French dialects. Another factor that bears on this consideration is that the French of West Africa is a displaced language. It was created in one area and culture of the world, then imported into the societies of another region. As a result, the West African dialects reflect liberties and restraints imposed on the original language. This is seen in smaller vocabularies and the use, non-use, or simply different use of certain grammatical features. It is also seen in the enrichment of expression that comes through the addition of phrases and concepts drawn from African cultures. As a result of these dynamic factors, one can say that while, strictly speaking, the former colonies are Francophone countries, they are, in a real sense, linguistically different from the Francophone countries of Europe and the rest of the world.

French Language Education. In the Francophone countries of West Africa children learn and use their mother language until about the age of six when they enter school. Here they are confronted with the rather formidable task of learning to understand, speak, read,

and write another language. The use of the child's first language as an aid to learning the second varies greatly from classroom to classroom. Some teachers attempt to make the transition gradually and employ the first language to communicate explanations and instructions for activities in the second. At the other extreme are classes where students are strictly forbidden to use their own language and are punished if they do so. In all cases the process takes a number of years and is subject to the dynamics mentioned earlier. As a result, language proficiency varies markedly.

Given the factors that go into the development of a student's knowledge and use of French, it is inevitable that discontinuities of a significant nature will exist whenever the student encounters French mediated instruction from another source. Though students live in a Francophone country and use French every day for their transactions, the language remains a second one with definite limitations. This was reflected in the statement of one of the participants, who, trying to explain some of the differences he saw in French literature produced by African and European writers, said, "African writers have to use a dictionary to find the right word or phrase. They have to consult it in order to write what they want. A French [European] writer just thinks and writes."

Linguistic intrusion. When a second language is learned, the person often carries into it elements of the first. The most common example of this is the "accent" we hear when listening to a non-native speaker. We may also notice unusual constructions in his or her sentences.

Similarly, features of the second language may be missing in the speaker's production, such as the use of certain vocabulary or grammatical features. Asian students, for instance, frequently avoid the use of modal verbs in English, possibly because of their worldview (Atkinson & Ramanathan, 1995). In both cases, effective communication is sometimes compromised.

It would appear from evidence in this study, that grammatical and lexical elements of the participants' first language intrude upon and influence the processing of the second one. This is seen in the misunderstanding of the term "spirit" reported in chapter six. Similarly, the substitution of "la mathematique" (singular) for "les mathematiques" (plural) suggests a different conceptionalization of the meaning of the word. Likewise, the infrequent use of conditional forms of verbs may mark a cultural dynamic that is being expressed in the second language. In general, the introduction of elements from the mother culture indicates cultural assumptions on the part of the learner. It may also represent an attempt to monitor and

construct accurate meaning for the second language text by using tools and signs from the first culture.

In the case of the infrequent occurrence of the conditional forms, it should be noted that the imaginary conditional, while existing in Ewe and Kabye, two languages of Togo, is rarely used. Linguists note that this is due to the perception among speakers that such constructions are foolish. This is a common behavior in oral societies where situational thinking is often preferred to abstract.

Discourse structure. Two aspects of student responses in the think-aloud protocols suggested that a discontinuity may exist between the discourse structure embodied in the texts and that with which the students were most familiar. The first aspect was the relatively high level of metacomments found in the protocols, especially when compared with other studies, (Langer, 1984, Aweiss, 1994). Metacomments represent personal reactions to the text, frequently of an evaluative or even emotional nature. The most prominent example in this study occurred when one of the participants often seemed engaged in a running debate with the author, challenging his statements and conclusions, and even laughing aloud at them. While they were less emotional, many of the other participants frequently seemed to feel a personal

engagement with the text, expressing agreement or disagreement in a manner reminiscent of an oral conversation.

The second aspect of the students' responses involves the line by line processing that generally occurred in reading the texts. The processing seemed to be more linear in nature with the participants often not seeming to notice the larger patterns of overall textual organization. This, too, has parallels with the structure of oral conversation.

While the African languages of Togo abound in oral literature, there are few written texts. As a result, patterns particular to written discourse structure are not well developed and may be dominated by those of the oral language. In turn, oral discourse structures in West Africa have not been studied extensively and linguists are hesitant to propose definitive models, (T. Marmor, personal communication, January 1998).

Whatever the case, the tightly organized and predictable patterns of textual structure present in instructional materials may presuppose an awareness of them on the part of the learner. The predominantly oral nature of language in West Africa, and the relatively small reading experience of the participants in this study would certainly argue for a lack of such awareness. Simply put, the reader may not notice textual cues designed to activate certain

processing schemata and in fact, may not have had opportunity to develop such schemata. As a result, important information embodied in the structure of the text may be misinterpreted or even overlooked entirely. As will subsequently be seen, the cognitive psychology of oral language users differs significantly from that of literate people.

Reading behavior.

It is not surprising that, in a largely oral society, the reading behavior of the participants is different from that which is seen in a predominantly literate one. In a real sense, reading is not the same thing in these two kinds of cultures. It has a different cultural form and use. Reading is largely restricted to the small percentage of the population that is functionally literate, and is, to a great extent, confined to school, business, and government settings. It is a specialized activity, used on a limited basis by a minority of the population, primarily for schoolwork, letters, business communication, and record keeping. The general public, especially outside the cities, sees very little in print and reading plays an extremely small role in the their everyday lives. In general, people rarely read instructions or newspapers and public announcements for information. They do not read for enjoyment or write letters to

their congressmen. In a way, it can be seen as a somewhat marginal activity in a society where language is mostly spoken and listened to.

One of the most surprising results of the study was the discovery that students had read so few books. As was noted in chapter 3, the potential effects of reading competence were assumed to be minimal because participants had passed a French proficiency test before entering the program. In reality, the overall reading capability of the participants was not clear. There may in fact, be serious deficiencies in their abilities to adequately decode text and reconstruct a reliable meaning from it. This is certainly an area of research to be considered.

<u>Cognition.</u>

The psychology of oral societies has not been greatly explored, but Ong (1982) has provided some important insights:

> Fully literate people can only with great difficulty imagine what a primary oral culture is like, that is, a culture with no knowledge whatsoever of writing or even of the possibility of writing. Try to imagine a culture where no one has ever 'looked up' anything. In a primary oral culture, the expression 'to look up something' is an empty phrase: it would have no conceivable meaning. Without writing, words as such, have no visual presence, even when the objects they represent are visual. They are sounds. You might 'call' them back - 'recall' them. But there is nowhere to 'look' for them. They have no focus

and no trace (a visual metaphor, showing dependency on writing), not even a trajectory. They are occurrence, events. (p. 31)

Ong goes on to note that in oral cultures, people only know what they can remember. They have no way to keep track of information created through complex cognitive processes such as analysis or synthesis. Furthermore they cannot easily preserve a complicated result of such thinking. "In an oral culture, to think through something in non-formulaic, non-patterned, non-mnemonic terms, even if it were possible, would be a waste of time, for such thought, once worked through, could never be recovered with any effectiveness, as it could be with the aid of writing. It would not be abiding knowledge but simply a passing thought, however complex" (p.35-6).

Oral societies find it difficult to organize material for recall. A common solution to this problem is found in certain kinds of language behavior such as memorization and the development of mnemonic devices like proverbs, rhymes and rhythms, poetry, and stories. This also may explain the emphasis on lecture/memorization observed in this study.

It should be noted that such linguistic features dictate particular discourse structures. Such structures are

necessarily different from those reflected in cultures where the use of reading and writing has reshaped cultural cognitive patterns. They reflect the cognition patterns used to process the kind of information necessary in the society. This recalls Rogers' (1990) and the researcher's suggestion, cited earlier, that each culture has its own preferred learning styles, modes, and grouping or cultural learning set. Ong posits a number of other cognitive processes common to oral cultures that are related to the presence of this mnemonic base. Some of these appear pertinent to the data in this study.

Oral thought is "additive rather than subordinative" (Ong, p.37). Simply put, this means that in oral languages, ideas or concepts are strung together serially rather than being grouped hierarchically. In an oral society a speech may be organized around a story or a succession of linked thoughts rather than around three points with subpoints and a conclusion. This kind of organization may be reflected in the reading style of the participants who seemed to process one sentence at a time rather than as ordered, hierarchically arranged concepts.

In Ong's thinking, oral language structures are "aggregative rather than analytic." That is, they often use

parallel terms, phrases or clauses and antithetical terms, phrases, clauses or epithets. He notes for instance, "One of the many indications of the high, if subsiding, oral residue in the culture of the Soviet Union is ... the insistence on speaking there always of "the Glorious Revolution of October 26..., "(p. 39). Similarly, in times past when literacy was less common in the United States we spoke of "The Glorious Fourth of July." Such phrases crystallize truths and traditions. These are subjects that are not subject to analysis, because, without writing, analysis of such concepts raises the risk of losing them. Teachers' observations that students do not analyze very much may reflect this characteristic.

One of Ong's most important ideas concerning oral societies is that they are highly traditionalist or conservative. This is certainly born out in West Africa by those who work in technological or educational development programs. Because their members must depend upon memory, oral cultures spend much time repeating what has been learned, a mindset that does not encourage intellectual experimenting. Knowledge is hard to obtain and has a high value. It is also rather fixed since it is not practical to generate many new

ideas and there is no writing to preserve them for consideration.

Ong elaborates more on this idea:

> Writing is of course conservative in its own ways. Shortly after it first appeared, it served to freeze legal codes in early Sumeria. But by taking conservative functions on itself, the text frees the mind of conservative tasks, that is, of its memory work, and thus enables the mind to turn itself to new speculation. Indeed, the residual orality of a given chirographic [writing] culture can be calculated to a degree from the mnemonic load it leaves on the mind, that is, from the amount of memorization the culture's education procedures require (Goody, 1968a, pp. 13-14). (p. 41)

Ong's comments call to mind the observations in this study concerning students' preference for memorization and support the idea that characteristics of oral cognition are indeed present.

This preoccupation with memorization may be related to the lack of creativity and preference for concrete ideas and expression seen both in this study and that of Flowerdew and Miller (1995). That is not to say that oral societies do not possess creative expression. Rather, creativity occurs in other areas than linguistic generation.

Lack of creativity is related to another observation of Ong's, that oral cultures maintain their knowledge close to what he calls the "human lifeworld." He notes their tendency to assimilate, "the alien, objective world" to the more immediate, familiar interaction of human beings. Without the ability to place knowledge outside the mind, these cultures cannot set it at a distance from them, objectifying it on paper. They do not produce lists or write "how to" books. All knowledge is linked to other humans and most learning involves interaction with a person, including the emotions, feelings, and attitudes that he brings to the teaching/learning event.

Another characteristic of oral cultures observed by Ong is that of a preference for situational rather than abstract thinking. "Oral cultures tend to use concepts in situational, operational frames of reference that are minimally abstract in the sense that they remain close to the living human lifeworld" (p.49). He cites the work of Luria, a contemporary of Vygotsky. At the suggestion of Vygotsky, Luria carried out investigations into the cognitive processes exhibited by nonliterate people in Uzbekistan. Among other things he found that nonliterates described geometrical shapes by

using objects of similar form. i. e., circles were "plates" or "moons", squares were "doors, mirrors', etc. Pictures of objects were grouped by the tasks they were used for rather than in categories such as tools.

Syllogisms were also handled rather literally. One subject was presented with the following:

> In the Far North, where there is snow, all bears are white. Novaya Zembla is in the Far North and there is always snow there. What color are the bears? Here is a typical response, "I don't know. I've seen a black bear. I've never seen any others." (Ong, p. 53)

As he goes on to note, people in oral cultures do not think in terms of definitions, geometric figures, abstract categorization or formally logical reasoning processes. It is quite reasonable to assume that the participants in this study, coming from a largely oral society, tend to utilize cognitive processes that are more oral than literate in nature. One evidence of this might be seen in one participant's tendency during a think-aloud protocol to engage in a running oral debate with the text's author. The high occurrence of memorization and avoidance of assignments that were cognitively complex noted by the instructors is another.

It is not surprising that people who only use oral language would utilize psychological mechanisms fundamentally different from those of literates, but it is difficult to imagine and understand those differences. This is due, in great part, to the fact that literacy works back on the minds of literate people to shape new ways of thinking of which they are frequently unaware. That is, processes such as classifying, analyzing, and listing become part of our own non-literate thinking so that the cognitive procedures we share with oral cultures are no longer identical to theirs.

Summary

In considering the study a number of issues stand out, but four seem the most pertinent:

1. Worldview as it affects the concepts of learning, the role of the teacher and student, instruction/learning styles and motivation.

2. Linguistic issues associated with the use of French as a second language, the derived characteristics of the French dialects used in West Africa, the intrusion of linguistic features of the first language into the second and the lack of use of some features of European French in the students' particular French dialect, and

finally the possibility of differing discourse structures in the first and second languages.

3. Issues associated with reading, including the fact that reading occupies a significantly different role in this society than in many others and that the predominantly oral, rather than literate, use of language greatly influences the nature of cognitive activity employed by students when reading.

4. The nature of prominent cognition patterns in oral societies and their relationship to the cognitive strategies displayed by the participants in this study.

Relationship to Tharp's Model of Psychocultural Variables.

When these issues are considered within the framework of Tharp's model of psychocultural variables there are some obvious connections. At the same time, one must remember some important differences between Tharp's research settings and that of this study.

It will be recalled that Tharp's work was carried out in classroom settings with children drawn from cultural groups that were all situated within the larger American society. Many, if not most, spoke English, the language of instruction, as their first language. With the possible exception of the Native American

students, the majority came from educated homes situated in a highly literate social environment.

Social Organization. Tharp's first variable, social organization, identifies classroom arrangement, general classroom ambiance, and the makeup of classroom social groups as the principal factors affecting cross-cultural instruction. While data from classroom observations were collected for the present research and were treated in terms of Tharp's variables, the focus of the study was the interaction of learners and the texts they use in their courses. Thus, it would appear that this variable has little application, with one exception. That exception is the question of whether materials designed in individualistic cultures that put high emphasis on competition and individual success complement the attitudes about learning that are common to highly collectivist societies. This may be a larger issue than is at first obvious.

School systems in the former French West African colonies typically rank students academically after important examinations and at the end of the school year. It is not uncommon for those in the highest positions to be actively persecuted by fellow students for having done well. This usually takes the form of taunts or occasionally physical assaults, and it is not uncommon for students to ask the local shaman to put a curse on their successful peers.

Individual excellence is not always welcome and the pressure to conform to the group generally rules. Whether this has a bearing on the design of self-study materials is still to be known.

Perhaps of more importance than social organization to the matter of instructional material design is the issue of content contextualization. Certainly the broad conceptualizations embodied in the target group's worldview are quite important to the content of print-based materials. Similarly, culturally specific vocabulary must be considered and compensation made. Finally, questions concerning prominent values, attitudes, and behavior patterns of the learners must be taken into consideration. For instance, learners from certain religious backgrounds might be offended by references to ideas in other religions. Similarly, students from a particular country might be confused by references to historical events that they perceived from a different point of view, for instance, accounts of wartime atrocities.

Sociolinguistics. Much of the data in this study falls under what Tharp calls the sociolinguistics variable. Here, he considers a number of things, including the nature of participation structures among students and teachers in classrooms and the narrative style of communication between them. In addition is *wait time*, which denotes the amount of time lapse allowed between questions and

students' responses. Related to this communication characteristic is rhythm, the cadence of speech used by the teacher in talking to students. The above do not correspond to this study because they are drawn from a classroom setting. However, there are sociolinguistic elements present in the data from this study, as was noted in the linguistic issues treated earlier. These, it will be recalled, centered on the use of West African French dialects, their use as a second language and the presence of linguistic crossover from the learner's first language.

Although Tharp and Miller and Flowerdew do not address them as such, many of the discontinuities they describe are related to cues used in the instructional language. These include questions, instructions, and prompts. Cultural factors related to questioning, such as how and when teachers ask questions, as well as the content and structure of the questions greatly affect the student's response. As was noted, African students in this study are hesitant to respond to questions calling for evaluation or generalization. Similarly, questions using cultural specific vocabulary or ones that assume awareness of specific cultural concepts may present difficulties for students. References to Freud or Pavlov, for instance, leave learners with a gap in the meaning they are trying to construct. As one of the TEE student put it, "Who are these people,

anyway?." In the same manner, instructions that suppose cognitive processes not common to the culture of a learner, such as analyzing or organizing ideas hierarchically, can also be a source of discontinuity and miscomprehension.

Prompts are key words or phrases that activate specific schemata a learner will need to process information, a kind of linguistic advance organizer. They are often related to the discourse structures of the language used in the materials. American instructional texts, for instance, may begin with sentences like, "In this chapter we're going to look at Boyle's gas laws. First, we will consider...." In the second sentence, the word "first" serves as a prompt to the reader that a series of ideas is about to be presented. If the learner's first language does not use such structures, the import of the prompt may be lost on him. Another example lies in the fact that, in American English, it is common to put topic sentences at the beginning of paragraphs or passages. This prompts a set of schemas related to subsequent development of the paragraph. Some languages put topic sentences at the end of the writing units and some do not use them at all. Until the learner becomes aware of the structure of the textual material, he or she may have difficulty processing the passage.

Cognition. Tharp's ideas concerning the role of cognition in cultural discontinuities center on what he calls processing-learning complexes; relatively large networks of schemata that define the strategies used across a broad range of cognitive tasks. He argues that Western cultures are predominantly oriented toward a verbal/analytical approach while more traditional ones prefer one that he calls wholistic/visual. This second model has parallels in Ong's description of oral cultures. The characteristics of TEE students' learning psychology as seen in the current data, as well as in traditional learning in West Africa (Bangura, 1987, pp. 56-57), appear to fit very well the wholistic/visual model.

Motivation. The last of Tharp's psychocultural variables is motivation. He builds his ideas around two elements: traits and states. Traits are motivation factors that are more or less consistent over a long period of time and are culturally reinforced. One of the traits generally found in West African students is their high value for education and their willingness to work hard at achieving it. Similarly they exhibit a somewhat passive behavior toward instruction and consider obedience and respect for their teachers to be very important. They are generally to initiate their own learning, feeling that they are not competent nor have the right

to evaluate, hypothesize or be very creative in other ways about the content of their instruction.

States, in Tharp's thinking, are psychological and social factors of a short-term, more transient nature. They include the interest level and content of materials, the techniques of reinforcement and punishment, and the nature of student/teacher relationships. The last of these is largely related to classroom situations and is not very pertinent to the case of print-based instruction. In contrast, the interest level and content of materials is extremely important as is seen in the observations in this research. Reinforcement, in the case of printed materials, must be couched in terms of factors that solidify meaning construction, such as those noted in the checklist used in the analysis of the TEE materials. In a cross-cultural setting, these features must compensate for discontinuities as much as possible and allow the learner to verify his own comprehension of the material being studied.

Finally, a factor in motivation that Tharp does not treat is that of assumptions made about individualistic versus collectivistic psychologies of learning. Distance education, including print-based varieties, is largely a creation of the highly democratic cultures of the United States and Western Europe with their strong beliefs in the value and potential of the individual. Today, many nations,

composed of traditional societies with group-oriented thinking, are looking to Western distance education resources to meet their learning needs. In view of this fact, the differences and similarities of their respective psychologies represent an important factor to consider.

Chapter 8

Conclusions and Suggestions

The focus of this study is embodied in the research questions presented in chapter 1:

1. a) Is there evidence to suggest that cultural discontinuities exist between West African learners and American-designed, print based distance education materials?

   b) If there is evidence, what forms do these discontinuities take and what is the nature of the learners' reactions to them?

2. What kind of cognitive strategies do West African learners employ when using American-designed materials?

3. a) What are the learners' rationales for participating and persisting in the learning experience?

   b) Do cultural discontinuities exist in motivational strategies embodied in the design of the printed materials? What forms do they take?

Cultural discontinuities

In this study, there is strong evidence that "cultural disconnects" exist at a number of levels. As has been noted, these stem from the use of different patterns of schemata used by West

African students on the one hand, and American teachers or instructional writers on the other. The differences in schemata arise from different cultural experiences and environmental settings.

Worldview. At the broadest, most basic level, the discontinuities grow out of differences in worldview between Americans and West Africans, especially as the view relates to concepts of learning, the role of the teacher and students, and instructional/learning styles and motivation. The data indicate that, for West Africans, teaching/learning is perceived largely in terms of teachers dispensing knowledge that students take in, most frequently through memorization and other lower-order cognitive processes. There is much less emphasis on skills such as evaluation, synthesis of new ideas and inductive analysis. In general, students' perception of the teacher's role and position in society, coupled with strong school discipline, goes far to produce learners who are passive and who largely view learning as the memorization of fixed knowledge. Although the students in this study were more independent, and as adults, felt a greater degree of freedom in their studies, they still exhibited many of these characteristics.

Cultural discontinuities related to fundamental beliefs associated with the worldview also came to light. Belief in spirits as

active agents responsible for observed events and an understanding of human development in terms of a preordained destiny figured in these discontinuities. Religious conceptualizations sometimes differed from those expressed in the text, producing obstacles to accurate construction of meaning. The Western belief in a scientific worldview and the resulting conceptualizations about the material universe also seemed to be unfamiliar to some participants.

Language. Discontinuities also surfaced in the broad area of language. This is not surprising, given that teaching, reading, and learning occur in French, a second language for all the participants. In particular, culture specific vocabulary frequently interfered with the processing of texts. Terms related to Western architecture, scientific theory, and Christian theological concepts, among others, posed meaning construction problems to the readers. The absence of use of conditional verb forms raises a question of how such forms are understood during reading.

The high number of incidents of apparently unconscious article substitution suggests a discontinuity related to grammatical or lexical elements. It may well be that features of the participants' first languages intrude into the French. There may also be a similar phenomenon related to differences in discourse structures, although this is less certain.

Reading behavior. It was apparent that reading has a significantly different role in the oral society of which the participants are members. It is largely restricted to French speakers and its use limited to education, business, government, and some personal reading. The lack of availability of materials was reflected in the fact that students in the study did not have much reading experience, many having read ten books or fewer in their lives. This, as might be expected, produced a reading behavior profile different from that of students in more literate Western societies. The data from the think-aloud protocols suggested that students process written information in different ways from people in the cultures producing the instructional materials.

The small amount of reading material available to students, their limited reading experience, and the medium of a second language raise another question. It may be that errors in meaning construction arise from a lack of adequate language/reading ability rather than discontinuities of a cultural nature. A reader, for instance, might seize only some of the main points in a text and "fill in the gaps" using his own experience and knowledge. Since that experience and knowledge are rooted in his culture, the resulting construction might or might not be considered a cultural discontinuity.

On one hand, such a construction is a true cultural discontinuity, even if it resulted in part from inadequate reading skills. Even if he grasped only part of the textual meaning, the reader's cultural experience still would not correspond with that of the text's author and he would supply meaning based on his own culturally constrained perception. One the other hand, if the reader's abilities are less than the minimum needed for adequate understanding of the text, a misconstruction could be considered a problem of language/reading skills rather than a cultural disconnect.

In this study, cultural discontinuities often seemed obvious to the researcher. The connection between "spirits" in the African world view and the interpretation that "spirits" caused renaissance scholars to think new ideas seems clear, especially since the student showed every sign of possessing adequate reading skills. Contrasting with this, however, was the reader who had difficulty staying on the correct line of text and who consciously noted the role of basic punctuation. In his case, meaning construction errors could readily spring from what appeared to be a very limited ability to understand the text.

Whether the two kinds of meaning construction errors can be teased out in a subject's reading is a difficult question. One approach would be to show that a particular subject was competent

in both the language of instruction and that he or she had adequate reading skills. Such competence might be determined through the use of activities utilizing reading comprehension evaluation techniques. Another approach would involve determining that elements in the subject's response indicated he or she had adequately decoded the text but ascribed an incorrect meaning based on cultural knowledge. An example from the present study is seen in the participant who interpreted a phrase like "becoming all you can" in terms of "destiny", a common notion in African worldview. Clearly, research should be done to better delineate factors associated with language competence.

Cognitive Strategies

Discontinuities related to cognition highlight the cognitive strategies the students use in dealing with the American produced texts. The participants tended to deal with text mostly at the sentence and phrase level and did not seem to easily regroup ideas into whole concepts or synthesize overall meanings of passages. This may reflect cognitive patterns that are more representative of the oral cultures from which they come. The interviews and class observations also suggested different predominant cognitive patterns. In particular teachers cited a learner preference for concrete content and memorization. They noted that students were

not creative and had difficulty with activities that required synthesizing concepts, evaluating textual content and peoples' ideas. They also exhibited a tendency to repeat facts on exams rather than hypothesize. The degree to which these classroom behaviors reflect those of text processing is not clear but there appears to be significant carryover.

These and other cognitive strategies are also reflected in the responses from the think-aloud protocols. The participants exhibited little hypothesizing, small use of other schemata to interpret text information, and rarely cited evidence or validated content. The lack of these validation activities suggests a low level of analytic processing and synthesis. Perhaps related to their oral society background, they made many more metacomments about the texts than in other studies. It would appear, in fact, that many of their strategies are based on processing activities that have their roots in cognitive characteristics of many people in oral cultures.

Rationales for Participation

Concerning students' motivation for participating in the program, it is clear that all saw the courses as a means of increasing the skills and knowledge they needed to fulfill their roles as pastors or church leaders. All expressed the belief that theirs was a task with a divine mandate and that they had a strong obligation to do it

well. Most also expressed a concern for those they led and a responsibility to help meet their needs.

In addition, two other factors played a role in student motivation: peer acceptance and accreditation for their study. Most of those interviewed, as well as one of the teachers, indicated that it was important that they be perceived by other pastors and members of their community as having undergone accredited training. This meant having studied at a known institution and possessing some kind of written attestation of their work. Anticipation of gaining well-paying employment was not seen as a significant motivational factor.

Discontinuities in Motivational Strategies

As was seen in chapter 5, the students are highly motivated to work and so make good use of the books to the extent possible. Nevertheless, some aspects of the books present important discontinuities that seem to impede effective study.

Frequently, new vocabulary is linked to cultural knowledge that it is assumed, often erroneously, the learner possesses. New terms are not defined most of the time and there is no systematic attempt to generalize them or show their meaning in a variety of contexts. These two elements often present major obstacles to constructing accurate meaning to passages.

Since the participants seemed to not use higher order cognitive processes, the lack of good learning goal definition presents problems. In addition none of the books have a summary of contents for each chapter and most have no advance organizers. This arrangement probably encourages learners to process text in the localized, almost line by line approach that was observed. In addition, it may have a tendency to reinforce rote memorization of textual information rather than see it in organized "chunks" presenting broad concepts. Perhaps the most important discontinuity lies in the fact that, despite several students' statements to the contrary, the books make little application of the information to the work role of the student. That is, because the books were developed in another cultural context, the writers are not aware of the needs of West African church leaders nor of the environment in which they carry out their work. As a result, some texts treat content that has no counterpart in West African cultures. A good example of this is found in the text on Christian marriage and family. An entire chapter is dedicated to the topic of dating, a practice that does not exist in West African societies. Similarly, systematic theology as such, is a foreign way of thinking for most West Africans and has a limited application in societies where

theology is built around personal or corporate experience and tradition.

As can be seen, there are a number of cultural discontinuities present in the texts. But, we must ask the question, Do they matter? Are they really significant to the instructional/learning process or are they just curiosities that sometimes surface in the cross-cultural interface? Given the data in this study it seems clear that some, like those that spring from certain aspects of worldview, language, and cognitive processing bear heavily on formulating accurate meaning; others, such as the name of an obscure figure in history have less impact.

Implications for Instruction and Research.

The findings of this study suggest several areas of research and application to instructional intervention specific to West African learners and generally applicable to other cross-cultural settings. It would appear that many of the overall dimensions of the learner's worldview can have significant bearing on how he or she processes information coming from another cultural setting. This is well exemplified by Kang (1992) in his study of Korean ESL students' interpretation of an English short story as well as the examples given in this paper. Perhaps research should be directed toward determining a means for identifying cultural elements or dimensions

that are likely to influence cognitive processing in a cross-cultural interface. Certainly, those who provide instruction or design materials in such situations should increase their own knowledge of the target learners.

Such an increased knowledge of learners' cultural background on the part of instruction providers should, ideally, lead them to identify and provide background information that learners need for a particular course of study. Depending on the content, this might take a number of forms. Examples might include explanations of vocabulary and attendant concepts, sketches of historical context, brief overviews of procedures (such as those used in archaeology, for instance), and pictures and illustrations (for unfamiliar architecture, for example).

Similar to the Flowerdew-Miller observations, the participants were not prone to hypothesize about the texts they were reading, nor did they easily or spontaneously summarize or evaluate textual meaning. Whether this reflected the methodologies they experienced in learning to read, their relative lack of experience in reading, or some other cultural factor is not clear. Some African teachers have suggested it might be related to a lack of confidence on the part of students concerning their competency to make evaluations or predictions concerning a text. Whatever the case,

writers of distance instructional materials need to be aware that the pattern of cognitive processing in other-culture learners may be different from that of their own culture. Taking that awareness into consideration, they may even find it necessary to provide activities to teach and develop specific cognitive processes if they are necessary to course content.

Related to the above is the consideration that text or instructional design may need to be modified to make it more compatible with learners' reading behavior. In the case of instruction delivered in a student's second language or where students' reading experience has been restricted in some way, it might be necessary to provide shorter, simplified or otherwise modified textual units. Differences in written discourse structure may need to be considered. Staging points that prompt readers to formulate resumés, hypothesize or otherwise create new ideas or concepts might be valuable.

When we consider the relation of cognition to format structure we should also consider the nontextual factors. Most of the books in this study do not use pictures or illustrations. The researcher's experiences in developing literacy instructional materials for West African adults suggests that while the addition of pictures could greatly supplement the students' understanding, their lack of

experience, and sometimes subsequent difficulty in interpreting pictures signals yet another possible area of discontinuities. In particular questions concerning the representation of perspective and partials objects, such as hands, should be addressed.

The infrequent use of written materials in West African cultures also suggests another area of exploration: the use of recorded materials as an instructional medium. Radios and cassette players are very common in this milieu and are important means of obtaining information and facilitating communication. It should be noted, however that the use of audio materials might require instructional formats compatible with oral cognitive processing styles including the use of much repetition of materials, slogans akin to "the Glorious Fourth" mentioned earlier, songs and stories. These last have already been used successfully in health education programs developed by the United States Peace Corps.

These ideas raise an important theoretical question. Are checklists of good instructional formatting such as Sammons' (1991), and Meacham and Evans' (1989) used in this study, valid for the non-western setting? Their origins in an American cultural setting suggest that they embody, perhaps unconsciously, assumptions about information processing that are not universal. Perhaps this is still another area of research. It might be valuable to investigate

how instructional materials from other cultures are structured and to discuss with their authors the assumptions *they* make in developing them.

Ong's belief (p. 41) that the degree of concern with memorization in a culture is an index of the level of its orality suggests the possibility of constructing hypotheses about cross-cultural instruction. The hypotheses might be linked to a number of elements common to many cultures. For instance, motivational factors may be related to the relative strength of collectivist or individualistic psychologies embodied in a given culture. Similarly, cultural cognition patterns may be linked to the degree of industrial development and/or the nature of daily living activities. Certainly the general levels of education and literacy, as well as the use of a second language, would relate to these hypotheses. Since discontinuities are by definition contrastive, it might be possible to construct some kind of broad comparative checklists of elements that affect the cross-cultural interface.

A logical start would be an analysis of both the Tharp and Flowerdew-Miller models. Some overlap is already apparent in the two but it might be necessary to consider adding aspects of worldview and the nature of the second languages (English, Spanish,

Russian, etc.) involved in the interface. Whatever the case, research by educational anthropologists might provide clues.

The responsibility to provide a means to navigate potential cultural discontinuities in written instructional materials lies, at least in part, with those who produce them. Whenever a person from one culture, whether African, European-American or Kazakstani, encounters text from another culture, there is an awareness of the gap, of the disconnections that exist between them. There is also an awareness that the problem is probably best conquered with the help of someone from the culture that produced the text, because only they understand deeply the roots of the writing. Warner (1948) recounts a conversation with a Liberian man, Quay-Quay, that exemplifies this very well. During the conversation, Quay-Quay brought Warner a book in English that he wanted her to read to him,

"Talk it out loud to me Ma. The writing lets loose into talk easy for you. With me, the meaning of one word gets lost before I find the one that follow. And the meanings of many words are things I do not know at all."

"But the people wait for the rice, Quay-Quay."

"Let the people wait, Ma. I have been waiting longer for new meanings." (p. 155)

Many of the broad features of the cross-cultural interface are now known, but many important details are still missing. Equally lacking is a clear picture of how instructional intervention needs to be shaped in order to help cross-cultural learners navigate the teaching/learning interface in print-based distance settings. With the rapidly increasing frequency of cross-cultural delivery of distance instruction, this need for a better understanding of the interface marks a rich area of research possibilities and needs.

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Appendix A

Sample Pages from Caribe Books

Leçon 1

INTRODUCTION À L'ÉTUDE DES RELIGIONS DU MONDE

L'homme est profondément religieux de nature. Il y a des preuves que la pratique de la religion remonte au début de l'existence de l'homme, donc, bien avant le christianisme. Nous avons découvert des témoignages frappants sur la nature religieuse de l'homme pendant l'âge de la pierre, il y a 25 000 ans. Par exemple, la célèbre grotte des Trois Frères, qui se situe dans le sud de la France, porte sur ses murs une peinture étrange représentant un personnage portant les bois d'un renne, les oreilles d'un ours et la queue d'un cheval. Il s'agit sans doute de l'image d'un prêtre se rapportant à quelque culte préhistorique ou d'une figure divine — peut-être un dieu à l'image d'un renne. Les murs de cette grotte sont ornées d'autres gravures. Un auteur les décrit en ces termes :

Outre le sentiment étonnant de vitalité intense qui en émane, il est indéniable que ces gravures dégagent une atmosphère de révérence cérémoniale. On ne peut se tromper sur la puissance surnaturelle mystique de l'univers vivant qui y est décrit et idolâtré. [1]

La religion s'était donc développée bien avant l'avènement de Christ. Jésus-Christ est apparu dans un monde habité par « beaucoup de dieux et beaucoup de seigneurs » (1 Co 8.5) et où les gens étaient « extrêmement religieux » (Ac 17.22).

---

1. L'homme est profondément _____ *de*

nature..

La nature complexe de la religion

Qu'est-ce que la religion ? La religion est difficile à définir de par sa complexité. Les définitions existantes diffèrent énormément et reflètent souvent les préjugés et les convictions de leurs auteurs. Un livre de texte bien connu donne pas moins d'une vingtaine de définitions différentes sur la religion. [2]

Chaque définition transmet l'intérêt particulier de son auteur. Par exemple, certains insistent sur le côté émotionnel alors que d'autres préfèrent souligner des caractéristiques comme la morale ou l'exercice du culte. Un auteur a écrit :

La religion comporte plusieurs éléments. Elle requiert que l'homme lui consacre sa vie, son

intellect, ses émotions et sa volonté ; elle concerne l'être individuel et en société ; davantage que la simple pratique du culte, elle incarne toutes les valeurs qui donnent un sens à la vie humaine. Pourtant, à son niveau le plus profond, la religion est toujours une relation : entre l'être humain et Dieu ou certaines puissances supérieures, quelle que soit la forme sous laquelle on puisse les concevoir. [3]

Cependant, cette définition a été critiquée par un autre auteur qui souligne le fait que certaines religions ne conservent pas « toutes les vertus qui donnent un sens à la vie humaine ». [4]

On peut formuler la définition chrétienne de la religion de la manière suivante : c'est la connaissance de Dieu par la révélation divine. Un chrétien reconnaît en Dieu la source de toute vie et celui qui la soutient. Il considère Dieu comme le seul être parfait, le Seigneur qui non seulement règne sur l'homme, mais aussi s'offre à lui par l'intermédiaire de Jésus-Christ, le compagnon saint qui fait sa demeure chez le croyant. Dieu est aussi un Père débordant d'amour qui nous unit tous en une seule et même famille. Mais la plupart des chrétiens ne connaissent jamais par expérience cette relation à laquelle ils donnent pourtant leur assentiment intellectuel.

Peut-on donner une définition universelle de la religion ? En voici d'autres qui ont été proposées par des experts dans le domaine :

La religion, c'est l'existence de l'homme telle qu'elle est vécue à travers ses relations surhumaines. [5]

Le sentiment commun à toute religion, c'est la dépendance de l'homme d'un être ou de quelqu'un qui le dépasse. [6]

---

2. Plusieurs définitions de la religion sont proposées dans les paragraphes ci-dessus. Donnez d'abord la définition chrétienne.

Proposez aussi une définition universelle de la religion, en vous référant à celles qui ont été données dans le texte.

Sujets de discussion

1. Que dites-vous de l'idée qu'il existe une conception africaine du monde ?

2. Discutez les éléments de la conception africaine du monde, et les éléments de la religion africaine qui \ correspondent, tels que présentés par Dr. Imasogie, qui vous frappent.

3. Comment le témoin chrétien doit-il s'adresser à ces éléments ?

4. Les étudiants africains peuvent aussi discuter les religions traditionnelles de leur région, en faisant l'application des observations du Dr. Imasogie.

5. Les étudiants africains discuteront la présence des nouvelles religions africaines, basées sur le christianisme, dans leur région et en analyseront les éléments. Quels doivent être les rapports et les attitudes des églises évangéliques envers celles-ci ?

Devoirs des cours avancé et supérieur

Cours avancé et cours supérieur
(Soyez préparés à présenter les résultats de votre travail en classe.)

1. Citez trois passages bibliques qui mettent en évidence l'efficacité de la puissance de Christ. Quels sont les enseignements importants de ces passages ?

2. Citez trois passages bibliques qui mettent en évidence le rôle du Saint-Esprit et l'efficacité de notre médiateur, Jésus-Christ. Expliquez comment ils les mettent en évidence.

Cours supérieur

3. Ecrivez un exposé que vous pouvez présenter à une église ou groupe de jeunes gens sur les avantages du christianisme vis-à-vis des religions traditionnelles.

Réponses

1. *conception, religion, sève, cultures, religions*
2. *terre, mal, homme*
3. *dynamisme, sorciers*
4. *les esprits et les démons, les esprits des ancêtres*
5. *le guérisseur, les esprits des ancêtres*
6. *terre, mystérieuse, sacrée, mal, homme*
7. *force vitale, personnalité, alter ego*
8. *malfaisants, sorciers, démons, divinités, alter ego, ancêtres, divinités, destinée*
9. *ici-bas, esprit, procréer, entrée, ancestraux*
10. *l'enterrement ; sacrifices, danses, festins ; le rituel de l'élévation ou de la divinisation*
11. *reçu, ancêtres, tourmenter*
12. *enfants*
13. *spirituelle, cause*
14. *destinée, s'accomplir, contrecarrée, Dieu, s'approprier, devins, passé, présent, avenir, humaines, spirituelles, solutions*
15. *sacrifice*
16. *expier, gratitude, aide, culture, pêche*
17. *mauvais esprits, conseils, protection*
18. *ancêtres, divinités, Satan, diable*
19. *traditionnelles, bénéfiques, fétiches, amulettes*
20. *accidents*
21. *mort accidentelle, maladie naturelle*
22. *théologie chrétienne, conception du monde*
23. *efficacité, puissance*
24. *esprits, démons, Ephésiens, Colossiens*
25. *Saint-Esprit, Christ, monde spirituel, puissances spirituelles, solidarité, humaines, spirituelles, Christ, Saint-Esprit*
26. *sacrifices*
27. *perception, spirituelle, contexte*
28. *omniprésence*
29. *prières, noms, lointain*
30. *superstition, vide spirituel*
31. *éthiopiennes, sionistes, messianiques*
32. *priantes*
33. *parlant, marchant*
34. *vision, S, E, Séraphins, 1925, Chérubins*
35. *niveau, vêtement*
36. *Aladura*
37. *Oschoffa, Bénin*
38. *fonder une nouvelle religion*
39. *culte, anges, ciel, croyants*
40. *visions, visionnaire, vision*
41. *Ancien Testament, traditionnels*
42. *esprits*
43. *polygamie*

Appendix B

B1: Classification of Sample Texts by Category

B2: List of All Caribe Books

B1: Classification of Sample Texts by Category

Books Using Primarily Declarative Knowledge Content	Principal Cognitive Processes Required by the Books
DOCTRINE/THEOLOGY- • La Doctrine Chrétienne de Dieu • Les Doctrines Chrétiennes de l'Homme et du Salut	The formation, organization analysis, integration, and evaluation of abstract doctrinal and theological concepts

BIBLICAL INTERPRETATION -
  OLD TESTAMENT
• Etudes sur le Pentateuque
• Les Premiers Prophètes d'Israël
 	
  NEW TESTAMENT
• La Vie et Ministère de Christ
• L'Evangile et les Epîtres de Jean
• Les Actes des Apôtres
• Vivre Par La Foi
• L'Epreuve de la Foi
• L'Apocalypse
	Acquiring vocabulary and constructing meanings, concept building. Analysis organization, and interpretation skills

HISTORICAL CONTEXTS - • La Bible et Son Interpretation • Le Monde de l'Ancien Testament • Le Context du Nouveau Testament	Assimilating historical facts, building concepts of ancient cultures, interpretation skills, chronology development, and chronological thinking
CHURCH HISTORY - • L'Histoire de l'Eglise de ses Débuts jusqu'au Moyen-Age • La Réforme et le Protestanisme • Aperçu de l'Histoire des Eglises Baptistes	Assimilating, generalizing, and integrating historical facts. Concept building. Analyzing, comparing and contrasting historical elements.
COMPARATIVE RELIGION - • Les Réligions dans le Monde Aujourd'hui	Building, comparing and contrasting religious concepts. Synthesizing Christian responses to these.

Books Using Primarily Procedural Knowledge	Principal Cognitive Processes Required by the Books
APPLICATION TO CHRISTIAN ROLE - • Le Pasteur et la Direction de l'Eglise • L'Engagement Personnel dans l'Evangélisation • La Cure d'Ame: Comment Conseiller • Vivre la Vie Responsible • L'Ethique Biblique et les Problèmes Contemporains • Le Mariage et la Vie Familiale • L'Œuvre Missionaire aujourd'hui • Construire un Sermon	Focus on analyzing and elaborating problems, integrating knowledge, building concepts of role. Generalizing and transforming knowledge into general behavior and role actions.

B2 : List of All Caribe Books

1. La Bible et Son Interprétation
2. Le Monde de l'Ancien Testament
3. Etudes sur le Pentateuque
4. Les Premiers Prophètes d'Israël
5. Le Contexte du Nouveau Testament
6. La Vie et Le Ministère de Christ
7. L'Evangile et les Epîtres de Jean
8. Les Actes des Apôtres
9. Vivre par la Foi
10. L'Epreuve de la Foi
11. L'Apocalypse
12. La Doctrine Chrétienne de Dieu
13. Le Royaume et l'Eschatologie
14. Vivre la Vie Responsable
15. Construire un Sermon
16. Le Pasteur et la Direction de l'Eglise
17. L'Ethique Biblique et les Problèmes Contemporains
18. Le Mariage et la Vie Familiale
19. L'Oeuvre Missionnaire Aujourd'hui
20. L'Engagement Personnel dans l'Evangélisation
21. L'Histoire de l'Eglise de ses Débuts Jusqu'au Moyen Age
22. La Réforme et le Protestantisme
23. Aperçu de l'Histoire des Eglises Baptistes
24. Les Religions dans le Monde Aujourd'hui

Appendix C

Elements and Definitions of Langer's Construction of Meaning

Elements and Definitions of Langer's Construction of Meaning

REASONING OPERATIONS

Questioning - uncertainties and incomplete ideas the person has at
      any point in reading or writing the piece - related to the genre,
      content, or text (no specified guess or expectation)

      "I don't know if it's Spanish or Italian."
      "Hmm, Confucianism, what does that mean?"

Hypothesizing - plans, choices, or suppositions the writer makes at
      the point of utterance, including choice of words, or predictions
      the reader makes about what the genre is about, what the
      function of a particular piece of text is, or about the answer to
      a question, based on that specific portion of the text.

      "The promise of another counselor, perhaps what one calls the
      Holy Spirit in verse 16."
      "They have given a number here - what does it mean? About
      1447-1455 maybe."

Assuming - meanings the writer assumes need no further
      explanation or elaboration, or meanings the reader takes for
      granted without textual evidence.

      "Assistant, that's the title given to Jesus."
      "So, it's a question."

Using Schemata - personal experiences drawn upon by the writer or
reader

      "Somewhere else one said, 'Where is God?,' other disciples
      asked that question."
      "...fossils, we talked about that [in school]."

Making Schematic Links - concept links made by the reader.

      "Umhum, these are the lessons we did in 8th grade."
      "God can have other names. One can call Him Yaveh for
      example."

Making Metacomments - comment about the writer's use or nonuse of particular content information or of surface features of the text itself.

"Hammurabi, they explain it [here]."
"What does that [word] mean. Oh, I see, the means by which God revealed them."

Making Metacomments (evaluative) - comment showing agreement, disagreement or other judgment about the content.

"Yes, I agree, that's right."
"Well, that's *their* idea."

Citing Evidence - information the reader gathers or explanation   the reader provides to answer a question., or to confirm or disconfirm a hypothesis.
"They're different. You can tell that by the [construction of] the sentence."

Validating - information (implied or direct) that a plan was fulfilled or a decision made.

(No occurrences).

MONITORING BEHAVIORS

Task Goals (awareness of own approach) - awareness of the need to carry out a specific cognitive activity in order to complete some aspect of   meaning construction.

(No occurrences)

Task Goals (use of self regulating mechanism) - carrying out a specific cognitive activity in order to complete some aspect of meaning construction

"But what is the relation between a woman's fertility and the vegetables? It's just a simple belief. I'm going to continue looking."

"I'm going to read it (the whole paragraph) again."

Task Subgoals (awareness) - another process needed in order to accomplish a task goal

(No occurrences)

Task Subgoals (use) - carrying out another process needed in order to accomplish a task goal

"I've got to think about the meaning of the word 'desagregé' [in order to understand the sentence]."

Genre/Discourse Structure (awareness)

(no occurrences)

Genre/Discourse Structure (use)

(no occurrences)

Mechanics (awareness) - notices grammatical routines and/or mechanical features of the text.

"A dying god...that's to say...is that a fabricated expression?"

Mechanics (use) - uses grammatical routines and/ or mechanical features of the text to construct meaning.

"...ressurection..." (The word was misspelled, which he noticed, corrected his pronunciation and reread the sentence to confirm its meaning.)

"There's a period there. I have to stop."

Lexicon (awareness) - aware of available (or unavailable) lexical repertoire.

"words of the covenant?...hmmm."
"incomprehensibility?...hmmm"

Lexicon (use) - makes lexical choices

"Assistant?...assistant...assistant...oh, that's the word. It's a title given to Jesus."

"Oh, here's a definition of counseling."

Statements of Meaning - (awareness) - Langer provides no definition for this term. It would appear that the meaning involves stating or paraphrasing the meaning of a phrase or sentence in the reader's own words. Furthermore, it is difficult to understand how a reader could be aware of such a meaning without using it to build understanding of the phrase or sentence. In any case, there were no responses which indicated that the participant was aware of meaning without using it.

Statements of Meaning - (use)

"...physical configuration of God. What does that mean? It's the conceptualization of God in terms of a physical form."

"I think this is a title which means that Jesus has a spirit that he promised."

Refinements of Meaning - (awareness) Awareness of modifications to or finer gradations of the meaning of words, phrases or sentences as textual meaning is constructed.

"That's hard [to understand]. The age of the earth...I don't know until or how...that is, the earth as such or rather the life on the earth. Well, that's a question that exceeds our understanding." (After reading that the earth is estimated to be four billion years old.)

Refinements of Meaning - (use)

"So, a process is a way of doing something. This way, this doctrine, ...how is it different?"
"That's a new word for me, a ziggurat. (reads more) Oh, so it was a thing, a god [or temple]."

STRATEGIES

Generating Ideas - getting started, becoming aware of relevant ideas and experience, and (in the case of writing) beginning to plan and organize the material in an appropriate fashion.

(no occurrences)

Formulating Meaning - linking concepts, summarizing and paraphrasing.

"So, these Sumerians celebrated offerings, worship ceremonies, and [made] various other expressions to the gods that assured material and human well being."
"And the fossils, they're some sort of remains, some things from the past., the remains of things, of course, that can help in dating - especially in the meaning of decomposition(?). If it becomes hot, they're carried away and then reformed, reconsolidated."

Evaluating - reviewing, reacting, and monitoring the development of the message and the piece itself.

(no occurrences)

Revising - reconsidering and restructuring the message, knowing meaning has broken down, and taking appropriate action.

"So, there's a second element in the definition of counseling. And this second element is that counseling helps the person to have balance in his life while the problem is there, the problem that's bothering him."

TEXT UNIT

Local - attention is focused on localized points within the text.

"The principal concern of man is the nature of his present and future existence. That's right."
"That's the main desire of people. To live a full life and have the assurance of future joyous life." (reacting to a statement)

Global - attention is focused on the overall message of the entire piece.

"The big idea of this paragraph is..."
"They're divided on the ten commandments here [in the passage]. Were the ten commandments really revealed to Moses, since the others, the Egyptians...? (pauses for thought) But I think that the last passage (paragraph) is clear about that... Whatever these opinions might be believe that the Bible is universal...that we must consider what it says."

FOCUS

Process - thoughts about strategies that have been or could be used, or thinking about thinking in general.

"Have I made a mistake?"
"I should have prayed before beginning."

Product - thoughts about the piece itself.

"Why have they made these divisions?"
"The laws of the ancient code of Hammurabi...Hammurabi...Hammurabi, who is he?"

TIME

Before - responses occurring before the readers begins the passage

During - occurring in the 1st, 2nd, 3rd divisions of the passage

After - responses occurring after the reader has finished the passage

KNOWLEDGE SOURCE

Genre - reference to the specific genre and the organizational structure and presentation of ideas peculiar to that genre.

(No occurrences)

Content - reference to the topic itself

"This is geologic research."
"They're right. This idea is true."

Text - reference to the linguistic material contained in the text - syntax, vocabulary, cohesive ties.

(No occurrences)

Appendix D

Distribution of Coded Responses

Activity	Before	1	2	3	After	Total	%
REASONING OPERATIONS							
Questions	1	9	17	14	-	41	37
Hypothesizing	-	2	1	-	-	3	3
Assuming	1	1	1	4	-	7	6
Making Metacomments	-	4	21	12	-	37	33
Citing Evidence	-	2	-	-	-	2	2
Validating	-	1	1	4	-	6	5
Using Schemata	-	2	6	8	-	16	14
Total	2	21	47	42	-	112	
%	2	19	42	38	-		
MONITORING							
Task Goals - a	-	-	-	-	-	-	-
Task Goals - u	-	1	7	7	-	15	8
Task Subgoals - a	-	-	-	-	-	-	-
Task Subgoals - u	-	-	-	-	-	-	-
Genre/Discourse Structure - a	-	-	-	-	-	-	-
Genre/Discourse Structure - u	-	-	-	-	-	-	-
Mechanics - a	-	2	-	-	-	2	2
Mechanics - u	-	3	4	3	-	10	5
Lexicon - a	-	14	17	5	-	36	19
Lexicon - u	-	15	8	5	-	28	15
Refinements of Meaning - a	-	-	-	-	-	-	-
Refinements of Meaning - u	-	18	19	10	-	47	24
Statements of Meaning - a	-	-	-	-	-	-	-
Statements of Meaning - u	1	18	21	14	-	54	28
Total	1	71	76	44	-	192	
%	0	37	40	23	-		
STRATEGIES							
Generating Ideas	-	-	-	-	-	-	-
Evaluating	-	-	-	-	-	-	-
Revising	-	-	1	-	-	1	3
Formulating Meaning	-	6	12	11	-	29	97
Total	-	6	13	11	-	30	
%	-	20	43	37	-		
Misreads	-	2	11	10	-	23	
Local Focus						325	
Global Focus						11	