

Deogratias Nshimiyimana - LEARNING AND
TEACHING STYLES IN THEOLOGICAL
COLLEGES.

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LEARNING AND TEACHING STYLES IN THEOLOGICAL COLLEGES:

A CASE STUDY OF KENYA HIGHLANDS BIBLE COLLEGE

AND

EAST AFRICA SCHOOL OF THEOLOGY, KENYA

BY

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A Thesis submitted to the Graduate School in partial
fulfilment of the requirements for the degree of
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ABSTRACT

The purpose of this study was to explore if teachers in theological colleges teach according to their predominant learning styles or according to the teaching styles of teachers they most preferred during their college studies.

This study answered the following questions:

1. What are the learning styles of Kenyan theological college teachers?
2. What are the teaching styles which were preferred by Kenyan theological college teachers during their college studies?
3. What are the teaching styles used by teachers in Kenyan theological colleges?

In an attempt to arrive at better results, three instruments were used: the Group Embedded Figures Test (GEFT), Teaching Strategies Inventory I (TSI), and Teaching Strategies Inventory II (TSI).

After collecting, analyzing, and interpreting the data, the findings of the study revealed that:

1. Every teacher has a distinctive learning style.
2. During their college studies, teachers in theological colleges preferred a teaching style that tended to be more Field Sensitive than Field Independent.
3. Teachers in theological colleges used a teaching style that tended to be different from the teaching style they preferred during their college studies.
4. There appears to be a relationship between one's learning style and one's teaching style.

The important features of this study are the implications drawn from the findings which are useful to improve the teaching-learning process based on a review of the available literature in the area of learning and teaching styles, and the knowledge it contributes to the field of education.

Student's Declaration

LEARNING AND TEACHING STYLES IN THEOLOGICAL COLLEGES:
A CASE STUDY OF KENYA HIGHLANDS BIBLE COLLEGE
AND EAST AFRICA SCHOOL OF THEOLOGY

I declare that this is my original work
and has not been submitted to any other College
or University for academic credit

(Signed) 
Deogratias Nshimiyimana

Date: June, 20, 1997

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ABBREVIATIONS

ACTEA: Accrediting Council for Theological Education in Africa

ANU: Africa Nazarene University

EAST: East Africa School of Theology

F-I: Field Independent

F-S: Field Sensitive

GEFT: Group Embedded Figures Test

KHBC: Kenya Highlands Bible College

PACC: Pan Africa Christian College

TSI: Teaching Styles Inventory

DEDICATED TO:

All Teachers Who will Benefit from it

My beloved wife Nzeyimana Léa

Our children Donagine, Aline, Jean-Marie & Béatrice

CHAPTER ONE

INTRODUCTION

Before and at the beginning of the colonial rule, formal education was not welcome by Africans. However, this does not in any way suggest the total absence of education in Africa. Africans had their own effective ways of educating their people. When the first missionaries came to Africa, they initiated a new system of formal education with different methods, strategies and styles. Since the latter tended to interfere with educational goals of Africans, it became suspect among Africans. Only unwanted children such as slaves were sent to school. It is said that those who volunteered to send their children to school were paid by missionaries (Sifuna and Otiende 1992, 162-3). Since then, African educational methods and strategies were minimized. Africans were not prepared for the teaching strategies and goals of the newly instituted system of formal education. It was mainly intended to suit the interests of the colonizers. Since Africans were colonized, they had no say in decision making. Gradually, they adapted to the new system of education. By the time most of African countries became independent, many African minds were won over by the Western system of education. As a result of this system some of

them became clerks, teachers, and administrators, etc., earning meager salaries to meet their daily expenses. Later, instead of being paid for going to school, fee payment was gradually implemented until today, it is a fact that education is cost prohibitive.

During that time, Africans became teachers but used methods, strategies or styles from the West. When students began to increase beyond the capacity of available schools, national exams were instituted so as to eliminate students on the basis that they were unable to perform well in the preferred subjects, and therefore could not go further. Today we have many school drop-outs and others who completed their studies but are unemployed. This has resulted in many criminal acts such as, prostitution, theft, killings, and corruption, etc. When one reflects about the current situation, it is easy to conclude that education is no longer able to meet it's goals. The Church today, being concerned about education and moral values of people in the society, started to establish Bible schools and theological colleges to train people who will provide sound education which considers physical, psychological, and spiritual needs of the society. The Church has an important ministry to homes, schools, hospitals and the society as a whole to teach Christian values which people should live by. Theological schools are strategically placed to teach these moral values.

The teaching-learning process requires a lot of things: methods, strategies, curriculum and many others. Students also play a significant role in teaching because they are the receivers of information which they process and recall during exams or in time of need. The process of remembering and recalling information when it is needed is called learning style. When the colonists came with their system of education, this aspect was ignored and is still being ignored in the teaching-learning process today. Such vital omission has led many people from the West to conclude that Africans are inferior academically. Each student has his own learning style. While Europeans sought to teach Africans using their own learning styles, Africans had their individual ways of processing information. Since the first teachers in formal education were from the West, it is difficult to know whether Africans who are teachers teach the way they were taught by teachers from the West, or the way they prefer to process information.

My interest in this study was generated from experience in the classroom, especially when after each session students discussed in groups about what the teacher had taught. Some expressed how excellent the teacher was in handling the subject, while others said the opposite. It is apparent there are different preferences of students on teaching styles used by the teacher. Whitman (1986,1) quoting Schwartz, was certainly right when he said:

How students learn and how teachers teach are complicated processes difficult to understand and even harder to master. It is not surprising that professors of many years of experience felt they have never quite got it right, and are amazed and gratified when the will to learn and the desire to teach come together in a few moments of excitement pleasure, and joyful discovery.

In addition to classroom experience, reading literature has contributed to my interest. Buconyori (1991,2), in his research on "Cognitive Styles and Development of Reasoning Among Younger African Students in Christian Higher Education", said that when teachers were asked why students were having difficulties in studying, they replied that students were not studying as they should. And when students were asked why they were not excelling academically, they responded that teachers were not teaching them in a way they could study well. He concluded:

These experiences and the responses of both teachers and students raised questions about the importance of considering teaching styles and cognitive styles needed as the key to an effective teaching-learning process.

Bowen (1984), in his research on "The Learning Styles of African Students", found out that Africans have their own learning styles. In his work, he proposed a list of teaching strategies which could be used to best suit the learning styles of African students. Bowen and Bowen (1984) and Buconyori (1991) found that more than 90% of theological college students were Field Sensitive. Research done in the West show that teachers tend to teach the way they

were taught rather than according to their own learning style (Bowen 1984,99). Since more than 90% of students in African theological colleges tended to be Field Sensitive, according to Bowen and Buconyori, when these students become teachers do they teach according to their own learning styles or according to the teaching styles used by their teachers?

The Purpose of the Study

The way teachers teach is of great importance. When teaching methods, strategies, and styles are used without taking into consideration the students' learning styles, there is a problem which can be called "Learning Style-Teaching Style Clash". Whenever this happens in a teaching-learning situation, it creates tension between the students and the teacher who end up losing respect for one another.

Little research has been done in the area of learning and teaching styles in an African classroom setting (Buconyori 1991,7). This study was designed to explore if teachers in theological colleges teach according to their predominant learning styles or according to the teaching styles of the teachers they most preferred during their college studies. This study answered the following questions:

1. What are the learning styles of Kenyan theological college teachers?
2. What are the teaching styles which were preferred by

Kenyan theological college teachers during their college studies?

3. What are teaching styles used by teachers in Kenyan theological colleges?

Significance of the study

As a result of research done in the area of African students' learning styles, recommendations have been made on teaching strategies which can best suit African students' learning styles. The results show that more than 90% of African theological college students tend to be Field Sensitive while a large percentage of students in the West tend to be Field Independent. Also, research shows that teachers teach the way they were taught rather than according to their own learning styles. The findings from this study are significant in the following ways:

1. Identification of learning and teaching styles will help to increase academic achievements and performance, students attitude towards school, reduce discipline problems and help students to learn effectively (National Association of Secondary School Principals 1982,142-4).
2. It will help teachers to become knowledgeable about their teaching styles so that they can consciously adjust, adapt or modify them in order to increase teaching-learning.
3. It will enable teachers to gain an appreciation of a

variety of teaching styles so that they can respect learning styles differences and adapt their teaching styles for different situations.

4. It will alert teachers to situations in which students learning styles limit their success in academic areas.
5. It will enable teachers to realize that all people possess ways to learn despite their ability level.
6. It will enable teachers to cultivate various teaching strategies and learn new models of teaching behaviors that contribute to students' learning.
7. It will help both students and educationists to understand the complexity of learning and appreciate the role teachers play in the learning process.
8. It will enable theological colleges to produce well-equipped graduates who will be model teachers in primary, secondary and universities and well qualified directors of Christian education programs in various churches in Africa.

Focus of the Study

This study was based on two theological colleges in Kenya. The study focused on teachers' learning styles, teaching styles which were preferred by theological college teachers during their college studies and teaching styles they use as they teach in theological colleges. In summary, the main focus of this study was to find out if teachers in Kenyan theological colleges teach the way they were taught or,

if they teach through their own learning styles.

Delimitation

This study described the teachers' learning styles in Kenyan undergraduate theological colleges. All Bible schools at secondary and graduate levels were excluded. The study included all teachers in two theological colleges, and students who were in second, third and fourth years of their study evaluated the teaching strategies of their teachers. All first years in the two institutions were excluded because it was assumed that they were not yet very familiar with the way their teachers taught.

Limitations

1. Since the researcher used a non-probability sampling, the results are limited to two theological colleges in Kenya.
2. Although the results could reflect other African theological colleges, findings from two theological colleges will not in any way be used to generalize what is happening in other theological colleges.

Assumptions

The study was based on the following assumptions with regard to learning and teaching styles:

1. That every teacher has a distinctive learning style.
2. That every teacher has a distinctive teaching style

3. That every teacher's teaching style is influenced to some degree by a former teacher he/she considers to be the best during his/her college studies.

Definitions

Teaching styles: is a reflection of the individual's value system regarding human nature, and the kinds of goals and environments that enhance human learning (Silver 1986,2).

Teaching strategy: is a particular set of steps to evoke from learners a specific set of desired behavior. It is a deliberate effort by the teacher to vary the mode of presentation to more appropriately represent the functions inherent in a particular learning objective (Silver 1986,3).

Teaching styles and Strategies: In this study, teaching styles and strategies will be used interchangeably.

Learning Styles can be defined as individual ways of perceiving, remembering and thinking or as distinctive ways of taking information and making it meaningful (Bowen 1995,2). In this study learning styles will be used to mean a biologically and developmentally imposed set of personal characteristics that make the same teaching method effective for some and ineffective for others (Dunn 1989).

Cognitive styles: are information processing habits representing the learner's typical mode of perceiving, thinking, problem solving and remembering.

Teaching: The World Book Encyclopedia defines teaching as the way by which one person helps another or others to achieve knowledge, skills and attitude (Willard 1977).

Modeling: A two step process where the learner first observes a model (e.g. an expert teacher) demonstrating a skill or skills and then tries to shape his own behaviors after those of the model (Morrison 1984).

Group Embedded Figures Test: A booklet in which the subject is shown a simple figure such as a square or a rectangle, and shown a more complex figure that has within the first simple figure then, the subject is asked to find the simple figure within the complex figure.

The West: In this study the term is used to refer to countries in Europe and America.

Field Sensitive Learning Style: is a global or wholistic style in which learning is influenced by the learner's environment or surroundings (Dunn 1989).

Field Independent Learning Style: is an analytical or linear style in which learning is influenced more by the learner himself (Dunn 1989).

Objective: An objective is an intent communicated by a statement describing proposed change in a learner, a statement of what the learner is to be like when he has successfully completed a learning experience (Mager 1962).

Deep-elaborative learning style: is a learning in which the student devotes more attention to the meaning and classification of an idea suggested by a symbol than the symbol itself. A deep elaborative information processor spends more of his time thinking and less time repeating (Claxton 1987, 24).

Shallow-reiterative learning style: is a learning in which the student takes note of how the word sounds and simply repeats it several times. Shallow reiterative information processors spend much of their time repeating and memorizing information in its original form (Claxton 1987,24).

CHAPTER TWO
LITERATURE REVIEW

The purpose of this chapter is to review, analyze, and incorporate into this study what others have said about learning and teaching styles.

In an attempt to arrive at a better understanding of learning and teaching styles, the review of literature is organized under the sub-topics of:

1. Learning
2. Learning Styles
 - a. Characteristics of FS/FI
 - b. Essence of learning styles
 - c. Field Sensitive and Field Independent learning
3. Teaching styles
 - a. Field Sensitive and Field Independent teaching
 - b. Basic construct for teaching
 - c. Teaching and learning styles
 - d. Studies on teaching and learning styles with focus on two theological colleges in Kenya
 - e. How teachers teach and learn
4. Implications for teaching-learning process

Learning

What is learning? Learning is the process by which we acquire and retain attitudes, knowledge, understanding, skills and capacities that cannot be attributed to inherited patterns or physical growth (Farrant 1980,107).

All people, children and adults, are interested in learning. Throughout every week one sees children going to nursery and primary schools, and youth to secondary schools. In some churches, people from all ages attend church education opportunities. In technical schools, colleges, seminaries and universities, private or not, one finds men and women learning different things. Apart from established schools, there are many students involved in distance learning and one cannot ignore people whose job it is to do research in various fields so as to find better solutions to problems.

From the above observation it may be possible to say that people are interested in learning, bearing in mind that they pay a lot of money for such education. This makes the study of learning and teaching very important.

Learning can be traced during the prehistoric period when people used to learn through apprenticeship, imitation and rituals. Through apprenticeship, a young man learned how to build a shelter by working with an older experienced master builder. Through imitation, people learned the language and customs of their parents and society and through rituals, people learned about the meaning of life and ties that bound them to their group. This is still being done today.

During the Sumerian and Egyptian periods (3000 BC), people started to learn how to read and write. The great improvement came with the Greek civilization (700-330 BC)

which set the basis for education used in the West today. The Renaissance (1400-1500 AD) stressed human experience of the ancient Greeks and Romans in their education. The rise of the public school system came about late 1700's and thereafter, psychology of education, teaching methodology and other principles related to teaching were formulated and improved year after year thereafter (Borrowman 1977,67-72e).

There are different types of learning and ways of learning. According to educational psychologists, types of learning include: affective learning, cognitive learning, and psychomotor learning. Affective learning has to do with feelings and values and therefore influences our attitudes and personalities. Cognitive learning is achieved by mental processes such as reasoning, remembering and recalling. Cognitive process is utilized in problem solving, developing new ideas and evaluation. Psychomotor learning has to do with the development of skills which require different coordination between our brain and muscles as when we read or write or carry out physical skills (Barlow 1985, 244-5).

There are many ways of learning. In general the two main ways of learning are deductive and inductive. Deductive learning describes the process by which a learner is presented with a hypothesis or general principles and applies a number of tests to it to discover whether it is true or not. Inductive learning describes the process which is the reverse of

deductive learning. In it, the learner examines related matters to see whether any general conclusion can be drawn (Farrant 1980,205).

In the teaching-learning process, while the teacher plays the role of organizing and presenting the material to be learned, the learner plays the role of processing information in a way that he/she is able to recall it when it is needed.

Communication between the teacher and the learner is important as at the end of the course or lesson, the students often discuss how the material was presented to them. Some express how the teacher excelled in presenting the material to the point that they were able to understand it clearly, while others may regret that they have wasted their time and money to pay for a course taught by a teacher who knew nothing about the subject and who was not able to teach it. It is not only students who have this problem but teachers also fail to understand why many students do not perform well in their studies and they attribute this to students lacking intelligence or not studying well. It is for this reason that there is need for a disciplined inquiry in learning and teaching styles so as to find out what and where the problem is and thereafter propose possible solutions for it.

Learning Styles

Investigation of the cognitive styles involved in learning began with the early Greek philosophers but a major resurgence of interest in the topic was stimulated by the research of Herman A. Witkin and his colleagues. Their testing began in 1940s and resulted in the identification of Field Sensitive and Field Independence as two major learning styles (Witkin 1978,2). One may ask why it was necessary to do an investigation of learning styles. The answer is that the information about the learning styles can help teachers become more sensitive to differences which students bring to the classroom and guide them to match students' learning styles with teaching styles. There are many learning styles which are too complex and a few have been explored. If any improvement in education is to take place, then investigation of learning styles has to be taken into consideration. Claxton (1987, iii) attested to this fact when he said:

Teaching and learning practices in higher education need improvement to witness the recommendation of several commissions of higher education and the difficulties faculty face with diverse preparation of today's students. Learning style is a concept that can be important in this movement, not only in forming teaching practices but also in bringing to the surface issues that help the faculty and administrators think more deeply about their role and the organizational culture in which they carry out their responsibility.

Presently, the study of learning styles has proved to be very important in the teaching-learning process. There are many approaches to learning styles and all those approaches can be examined at four levels namely: personality, information processing, social interaction, and instructional methods. Since this study will focus on learning and teaching styles, information processing, as it relates to learning styles and instructional methods as it relates to teaching styles will be considered. Studies show that every person has his/her own learning style. Klausmeier (1985,133) indicates four major areas of learning styles. The four areas involve the student's needs and preferences associated with the environment for learning, the student's motivation, the sociological aspects of the learning environment, and the student's physical needs. This means that there are many learning styles. Davis (1991,47-9), quoting Valencia (1981), gives a list of twelve:

1. Analyzing: facility in concentrating in details and separate parts of an object or situation (Tyler 1965).
2. Synthesizing: facility in seeing the field as an interpreted whole; not much facility in perceiving details (Tyler 1965).
3. Convergent thinking: facility in reaching logical conclusion based on conventional reasoning. Scientific reasoning; working problems that have clear cut answers (Kogan 1979).
4. Divergent thinking: facility in generating alternative possibilities and solutions to problems, also in imaginative thinking.
5. Cognitive complexity: facility in organizing information in hierarchical fashion; tendency to perform well on tasks which require vertical analysis

of relations between dimensions (Kogan 1979).

6. Cognitive simplicity: tendency to use dimension difference when integrating information (Kogan 1979).
7. Field Sensitive: facility in seeing complex perceptual fields as a whole. Tendency to give greater attention to persons and things, to be more socially perceptive to external directions. Preference for lessons prefaced with supportive assurance from the teacher, problem solving strategies modeled by the teacher, and a humanized instructional model.
8. Field Independence: tendency to differentiate stimuli found within a perceptual field. Preference for task requiring fictional information and problem based on analytical processes. Preference for individual and independent learning with the teacher serving as a resource rather than a model.
9. Leveling: facility in assimilating new stimuli into already established cognitive organization but not always in perceiving the difference between the old and the new (Tyler 1965).
10. Sharpening: facility in differentiating new and old, in noticing changes, in creating new categories (Tyler 1965).
11. Scanning: facility in proceeding through a maze of details with uniform awareness, mentally organizing from broad to narrow.
12. Focusing: facility in locating and focusing upon a few key details; thus performance is often prompt and correct. Important peripheral cues may be missed, however (Rice 1979).

Since there are different types of learning styles, there also are different instruments to identify those different learning styles. The tools used by Witkin to study Field Sensitive and Field Independence learning styles are three. The Rod and Frame Test (RFT), the Body Adjustment Test (BAT), and the Group Embedded Figures Test (GEFT).

In the first test (RFT), the subject is seated in a dark room and shown a luminous rod situated in a luminous frame.

The rod and the frame can be adjusted independently. The subject is asked to move the rod to true vertical position as the frame is slanted. The subject who utilized the external visual field was said to be Field Sensitive, while the other who used internal referent of his body was said to be Field Independent.

In the second (BAT), the subject is seated in a chair inside a small, specially constructed room, both of which can be moved independently. The subject is asked to adjust his body to upright position. The subjects who adjust the body to surrounding tilted room and report that they are sitting in an upright position are said to be Field Sensitive, while the subjects who adjust the body to an upright position independently of the angle of the room are said to be Field Independent.

The common one used today is the Group Embedded Figures Test (GEFT), wherein the subject is shown a simple figure, such as a square or a rectangle, and then shown a more complex figure that has within the first simple figure. The subject is then asked to find the simple figure within the complex figure. People who easily locate the simple figure in the complex one are said to have a Field Independent learning style. Those who have difficulty or are unable to find the simple figure in a complex are said to have a Field Sensitive learning style (Claxton 1987,8).

Since Witkin stimulated the interest in the topic of

learning styles back in 1940s, a lot of researches have been carried out in the West and these have tremendously contributed to and improved education in that from primary education to higher levels of learning, teachers make their efforts to match their teaching styles with students' learning styles. This poses a significant challenge to African education where very little has been done in the area of learning styles. Even from findings of research done elsewhere which include implications for teaching strategies, little effort is made to investigate students' learning styles so that teachers can match their teaching styles with the students' learning styles.

Characteristics of F-S/F-I

Students have behaviorally distinctive characteristics which are the result of their learning styles. Dunn (1989) described a Field Sensitive learning style as a wholistic or global style in which learning is influenced by the learner's environment or surrounding while a Field Independent learning style is an analytical or linear style in which the influence of the learning comes from within the learner rather than from the surroundings.

According to Bowen and Bowen (1995,3), a Field Sensitive person is sensitive to judgments of others, responsible to social reinforcement, good with interpersonal relations which are very important to him/her, happy in group situation, obedient to authority, conscious of culturally

determined gender roles, more anxious to be socially accepted than to gain autonomy. The Field Independent learner is strongly influenced by his own judgment, happier working alone than in group, analytical at solving problems, intrinsically motivated, a self-starter, independent in making decisions and good at sciences and mathematics (Witkin 1978, 18).

Similar studies by Witkin done in 1976 show that Field Independent students clearly favor areas of study that call for analytic skills, such as mathematics, engineering and science while Field Sensitive students favor areas that call for more extensive interpersonal relations, such as social sciences, humanities, counseling, teaching and sales. It should be noted that all who have done studies in learning styles have found that none of these characteristics deal with intelligence or ability (Bowen and Bowen 1995,3).

Having considered the behavioral characteristics which result from students' learning styles, it is necessary to caution that any conclusion drawn about learning styles on the basis of mere observation without a disciplined inquiry could be misleading. For this reason, to be able to identify a particular learning style, a proper study has to be carried out using relevant instruments.

Essence of Learning Styles

Learning styles have a specific nature which is worth

noting. What is to be considered is that neither Field Sensitive nor Field Independent is better than the other. Since each learning style carries with it very positive skills and characteristics, it will be necessary to consider the essence of learning styles. Witkin (1976,25,26) describes the essence of learning styles as follows:

1. Field Sensitive/Independent cognitive styles are process variables. They represent techniques for moving towards a goal rather than competence in achieving goals.
2. Learning styles are persuasive dimensions of individuals functioning. They express themselves across domains traditionally considered in isolation from each other.
3. Learning styles tend to be stable; this means that from knowledge of an individual's learning style at one time we can predict his learning style at a later time with reasonable accuracy.
4. Learning styles are bipolar. The cluster of restructuring skills and cluster of interpersonal competencies thus have their high and low level at opposite poles of the Field Sensitive/Independence learning style dimension.
5. Learning styles are value neutral. Each pole of the Field Sensitive dimension has qualities that may help a person to get along in specified circumstances. It is not inherently better or worse to be located towards one pole of the Field Sensitive/Independence or the other.

To know and understand the essence of learning styles is very important because from knowing that his/her learning style is no better than the other, the subject is able to respect other people having different learning styles and the subject works hard to minimize the behavioral characteristics which seem to be negative and destructive to others.

Field Sensitive and Field Independent Learning

Messick and associates (1976) identified learning styles based on their review of the literature. They identified two cognitive styles: reflective versus impulsive, responding to environment situations and Field Sensitive versus Field Independence. Kogan (1966) has shown that persons with an impulsive style react quickly to situations. They give answers quickly without thinking through the situation first and tend to make errors by responding quickly. Persons with a reflective style react in opposite terms.

A Field Independent learner interprets and restructures environmental situations while a Field Sensitive learner tends not to restructure situations but accepts them as experienced. A Field Sensitive learner tends to like social studies and requires more externally defined goals and extrinsic rewards.

Field Sensitive and Field Independent learners are also reflected in their career interests. Academically oriented Field Independent persons tend to be attracted to careers in mathematics and sciences, including teaching in these fields. Practically oriented Field Independent persons are reflected in vocations such as carpentry, farming, mechanics and forest service. The interest of Field Sensitive persons lies in careers such as social work, counseling, elementary school teaching, and social studies teaching.

Teaching Styles/Strategies

The way teachers teach is very important. Research shows that some teachers are influenced by their own learning styles in their teaching. A few try to match their teaching styles with the students' learning styles while others through the process of modeling teach the way they were taught. It is these differences in teaching styles that call for a disciplined inquiry so as to know which side teachers in selected theological colleges in Kenya fall.

What is teaching? It is the direction or guidance of learning experience. Abraham (1977,55) says that teaching is the role of the teacher which involves teachers' preparation for their classes, guiding, or assisting the learning of students, checking students progress, and setting a good example for their students.

Teaching styles and strategies go hand in hand with teaching methods. In each teaching method, different styles and strategies are used. Some methods include lecture, story telling, debate, brain-storming, question and answer, group discussion, buzz groups, case study, skit or drama, role play, panel discussion, forum, just to mention a few.

Bearing in mind that there are many teaching methods, there are many strategies and styles which can be used with each method to be able to maximize students achievement.

Olander (1994,110-11) proposes instructional strategies which the teacher needs to consider any time he/she is teaching. These strategies include:

1. Using variety of teaching methods rather than using one.
2. Allowing students to ask questions and to interact whenever a lecture method is used.
3. Making a conscientious effort to involve students in our courses so that they are in active role rather than a passive one.
4. Making efforts to explain to students how the course which they are studying can have future value to them as pastors, teachers, administrators, and church workers.
5. Being sensitive to students comprehension of the materials being studied by periodically using questions such as "Does this make sense to you?"
6. Frequently relating the material being studied to life situations and ministry experiences.
7. Making creative use of visuals in our teaching whenever appropriate and sensible.

Teachers, like students, have their own way of acquiring information. Bowen (1984,33) quoted Candler (1976) who found that Field Sensitive teachers tended to acquire more information through observation and tended to model the auditory and visual aspects of a videotaped lessons more than Field Independent teachers did. Studies done in the 70's show that teachers' learning styles influence the way the teachers teach. For instance, Mahlios (1981), in his study, found that Field Independent teachers tended to use lecture and discovery techniques, methods involving more teacher pupil contact. Farrant (1980,216) also agrees

with Mahlios when he says that teachers teach the way they prefer to process information. He goes on to say that style of teaching, like living, is often influenced by the personality of the individual and the circumstances of the moment. According to other studies done in the West, it was found that while teachers tend to teach the way they prefer to process information, many teachers teach the way they were taught rather than the way they prefer to learn. At the same time, it was found that teachers test/examine students the way they were tested while in school rather than the way they prefer to be examined. This comes as a result of what is called modeling. Farrant (1980,312) supports the view that modeling has a great impact on the learner when he says that it is almost certain that one remembers the teachers who taught one at school better than the lessons they taught. This is because no person can work as a teacher without something rubbing off on his students. It is not surprising to know that teachers teach the way they were taught.

Sprinthall (1987,239) says that students have been known to model their teachers so closely that in a sense they become teachers when interacting with others. Klausmeier (1985,36) says that live demonstration by the teachers and filmed demonstration of a skill provide an overview of the skill to be learned and a model to be imitated. Each coach demonstrates, explains, and teaches the particular skills involved in playing a particular position. When the students are to develop their own art products, however, the

teacher helps the student with technical skills as necessary but leaves ideas, composition, and color to the student. According to Klausemeier, it is clear that the teacher plays an important role especially in the future life of his students, being the reason why some researchers have found teachers teaching the way they were taught not the way they prefer to process information. Similarly, Bowen (1984,99) agrees that teachers tend to teach the way they were taught rather than according to their own learning style. Thus, teaching styles are important in teaching-learning process because they are used to match students' learning styles so as to motivate students and to maximize the student's achievement. Using different teaching strategies, the teacher becomes a model to his students who become future teachers for the next generation.

Field Sensitive and Field Independence Teaching Styles

In Field Sensitive teaching style, the teacher provides the learners with cues regarding what they are to learn, ensures that they are actively participating in the learning process, reinforces successful efforts, and provides feedback and correction. Guild (1985,1) describes a Field Sensitive teaching style as being strong in establishing warm and personal learning environment and emphasizes personal aspects of instructions. Field Sensitive style prefers teaching situations that allow interaction and discussion with the students and uses questions to check

on students learning following instruction. It provides frequent feedback and avoids negative evaluation. In general, it is student centered.

In Field Independent teaching style, the teacher introduces each topic by questions and he will present information following student answers. Lindgren (1985,279) indicates that the kind of questions teachers pose, has significant effect on what students learn and how they learn it because the teacher is able to stimulate creative thinking in students by asking divergent questions that encourage speculation, guessing, and exploration of ideas. Guild (1985,1) describes Field Independent teaching as being strong in organizing and guiding student learning and emphasizing cognitive aspect of instruction. Field Independent teaching style prefers impersonal teaching methods such as lecture and problem solving. It provides specific corrective feedback, and uses negative evaluation.

Neither the Field Sensitive nor the Field Independent teaching style is better than the other. Either can be good or bad depending on how it is matched with the students' learning styles. Field Sensitive learners need a Field Sensitive teaching style while Field Independent learners need a Field Independent teaching style. It is necessary to match teaching styles with students' learning styles. The situation becomes complex when the teacher has students

with different learning styles in one class. One solution is to group the students with the same learning style together and teach them accordingly. Apart from that, literature suggests that the "how" question of matching requires decisions that only educators can make and implement because there are no right answers, but only the right question, with tentative answers, which are validated during the teaching and learning of a lesson (Cornett 1983,42). Using a global teaching style can also cater for students with different learning styles as long as the teacher gives varied assignments and exams in which students who are analytical and those who are not, have freedom and choice to use their own learning styles.

Basic Construct for Teaching

For teaching to be effective, three important factors have to be taken into consideration: teacher's decision making ability, the content to be taught and the strategy to be used. Decision making ability refers to the way the teacher makes the best possible matches between the student's learning preferences. The content to be taught refers to the total sum of the lesson that is: introduction, body, and conclusion which combine to help the student acquire knowledge, skills, habits, attitudes and values. The strategy to be used refers to methods and styles which will help the teacher to effectively communicate his lesson in a way students prefer to learn or process information.

Teaching and Learning Styles

Teaching and learning styles are very important in the teaching-learning process. Research has found that there are many advantages of teaching students through their own learning styles. The National Association of Secondary School Principals Research (1986,142-6) has found that teaching through student learning styles increases academic achievement, improves student's attitude towards school, reduces discipline problems; students learn effectively when taught through their preferred learning styles, and productivity can be maximized in the teaching-learning process. Teaching through students' learning styles is what educational psychologists call "matching" and if it could be applied, then many problems which remain a challenge to the educational system today could be solved. These problems include, mass failure in school drop-outs, lack of discipline caused by lack of motivation and many others. Claxton (1987, 25) suggests that teachers should find ways to help students learn to adapt the styles most appropriate to the materials to be learned which would include helping them to become deep-elaborated rather than shallow-reiterative processors. Research has indicated that teaching through students' learning styles not only eases the teaching communication in the classroom but also increases students' achievements.

Studies on Learning Styles in Theological Colleges in Kenya

As mentioned above, very little has been studied in the area of learning and teaching styles. The following are studies which were done on learning styles in selected theological colleges in Kenya. Studies in the field of learning styles were done by E. Bowen (1984), D. Bowen (1984), and Buconyori (1991). All of them found that African students tend to be more Field Sensitive (FS) than Field Independent (FI) in college education: 76.42% FS, and 20.58% FI. Bible college students tend to be more Field Sensitive than students from other universities so do female in comparison to male students. The fact that few studies have been done in the area of learning and teaching styles challenges educationists to consider this area and do research which will enhance productivity in teaching-learning process.

How Teachers Teach and Learn

The way teachers teach can be influenced either by the teacher's learning style, the teacher's effort to match his teaching style with students' learning styles, or by modeling process where the teacher teaches the way he/she was taught. According to research done in America, the teacher's cognitive style influences the way he/she teaches. Whitman and others (1986,15) say that "just as every student has his unique cognitive style, so every instructor has his individual approach to teaching".

Often, in the past even when as instructor was flexible enough to use a variety of media, he tended to choose those that were organized and presented in a style compatible with his own. Other researches have found that there are many teachers who teach the way they were taught rather than according to their own learning styles while a few match their teaching styles to students' learning styles. Whichever influences the teacher's teaching styles or strategies is of less importance, what matters a lot is the ability of the teacher to communicate his/her subject in away that the student is able to process the transmitted information and be able to recall it in time of need.

Implications for Teaching-Learning Process

Studies in the area of learning styles are very important not only because they show how people learn but they also help to formulate implications for teaching strategies which can best suit a particular teaching-learning style. The following are strategies to use in teaching as the situation warrants. It will be necessary to remember that, nothing works all the time. The success of a strategy is highly dependent on how, when, where, why and by whom it is used.

1. Present concepts and skills in a logical sequence, i.e concrete to abstract; easy to difficult.
2. Let students know that you expect them to succeed.
3. Use specific examples and concrete models to make abstractions and generalization clear.
4. Plan tasks within a student's range of challenge, i.e

some success guaranteed for everyone.

5. Match learning tasks to student's developmental levels.
6. Reinforce desired behaviors—such as speaking in sentences, legible handwriting, completing tasks, original answers.
7. Give honest descriptive feedback to students about their performance as soon as possible.
8. Relate student's past experiences to new learning such as tie in known with unknown.
9. Give students various kinds of practice experience such as repetition, overlearning and mastery learning.
10. Use all models (visual, auditory, tactile, and kinesthetic) when teaching concepts and skills.
11. Clearly communicate to students the objectives of a task so they can understand it clearly.
12. Give students opportunities to make choices and provide input about their own learning.
13. Use a variety of teaching strategies and change pace as appropriate.
14. Involve students actively in a lesson by using appropriate amounts of teacher talk and student talk/ thinking, silent and wait time, empathy role, drama.
15. Capitalize on students interest; structure learning centers around interests rather than just teaching skills.
16. Act as model (listening, reading, speaking, writing, and especially thinking demonstrate and practice what you teach.
17. Ask open-ended questions at all levels of Bloom's taxonomy.
18. Pre-teach key vocabulary presented in teaching assignment.
19. Prepare students for learning by using such introductory techniques as fantasy journeys, warm-ups, attention getter and novelty.
20. Structure and organize lessons with clear concise directions explanations, focus questions etc.

21. Provide students with opportunities to pursue interest area and receive credit for independent study.
22. Teach students to self-evaluate and reflect on their learning. "What's one new thing you learned today?"
23. Capitalize on teachable moments when interest and readiness to learn is at a peak.
24. Integrate the teaching skills and content in unit teaching.
25. Ask students to paraphrase or retell main points of a reading or a listening experience.
26. Follow direct teaching with practice of reinforcement activities.
27. Balance right brain activities with left brain activities.
28. Teach students strengths while remedying weakness; we all like to do what we do well.
29. Set appropriate pace of learning (Cornett 1983).

There are many other strategies to be used while teaching. When taken into consideration they can help teachers to teach well and students to learn properly. Dunn (1989,18) attested to this fact when she wrote that students are not failing because of the curriculum. Students can learn almost any subject matter when they are taught with strategies and approaches appropriate to their learning style strength. She says that when students cannot learn the way we teach them we must teach them the way they learn. Implications for teaching-learning process listed above were drawn on the basis of the findings of researches done in the West. This remains a challenge to Africans to do their own research in order to draw implications for teaching-learning process

which are related to learning styles of African students.

CHAPTER THREE

RESEARCH PROCEDURE

This research was designed to explore if teachers in selected Kenyan theological colleges teach according to their predominant learning styles or according to the teaching styles of the teacher who most impressed them during their college studies. The study was done in two undergraduate theological colleges in Kenya East Africa.

The study had three important concerns.

1. Learning styles of teachers in theological colleges,
2. Teaching styles preferred by theological college teachers during their college studies, and
3. Teaching styles used by teachers in theological colleges.

Three instruments were used in gathering the data, namely, the Group Embedded Figures Test (GEFT), Teaching Strategies Inventory I, and Teaching Strategies Inventory II.

Research Procedure

The research procedure was outlined as follows:

1. Two theological colleges were selected to participate in the study. One college is in the city of Nairobi and another in the rural area. Each of the two colleges was started more than ten years ago, having teachers from different countries. This helped in analyzing the data comparing teachers from Africa and those from the West.

- a. The colleges are at post secondary level.
 - b. The students are from different denominations and different countries. This contributed to a balanced evaluation of teaching styles because students have been exposed to various teaching styles either in the church or at school.
2. Arrangements were made to get the Group Embedded Figures Test.
 3. The Teaching Strategies Inventory I for identifying teaching styles preferred by theological college teachers during their college studies was developed.
 4. The Teaching Strategies Inventory II for identifying teaching styles used by teachers in theological colleges was developed.
 5. A panel consisting of 3 lecturers was selected to help to validate the instruments which were developed.
 6. A group of 3 students taking "College Teaching Course" was selected to help to refine the instruments.
 7. Two instruments, Teaching Strategies Inventory I and Teaching Strategies Inventory II were developed and tested.
 8. Arrangements were made to secure permission from the top administrators of the two colleges in order to administer the instruments.
 9. Research was conducted and data were gathered from the two theological colleges selected for the study.
 10. Different learning styles were identified. Preferred and used teaching styles in theological colleges were also identified.
 11. Conclusion and implications for improving teaching-learning process were drawn.

Population

Since the study was about teaching and learning styles of teachers in theological colleges, the population of this study included teachers in selected undergraduate theological colleges. Students in the selected theological colleges were part of the population since they were asked to

contribute to identify the teaching styles used by their teachers.

Sample

The sample consisted of all teachers at Kenya Highlands Bible College (KHBC), some teachers at East Africa School of Theology (EAST), and some students from both colleges enrolled during 1996-1997 academic year.

Kenya Highlands Bible College (KHBC) is situated in Kericho District, Rift Valley Province, about 256 km from the city of Nairobi. It was selected because it is a theological college. It was started in 1955 and is sponsored by the Africa Gospel Church and the World Gospel Mission. It offers a Bachelor of Arts degree and Diploma in theology. The college accepts students from all countries of Africa. The student enrollment is about 95. The college is a registered candidate for ACTEA accreditation; it is also seeking accreditation from the Government of Kenya through the Commission of Higher Education.

East Africa School of Theology is situated in the city of Nairobi. It was chosen because it is also a theological college. The college was started in 1968 and is sponsored by the Kenya Assemblies of God. It offers a Bachelor of Arts degree and Diploma in Bible. The enrollment is about 120. The college accepts students from all countries of Africa. It is a registered ACTEA correspondent institution.

Subjects

As originally intended, all teachers from Kenya Highlands Bible College (KHBC) and East Africa School of Theology (EAST) were to be included as subjects for two instruments namely, the Group Embedded Figures Test, and Teaching Strategies Inventory I. All students doing their B.A. Program in the two colleges were included as subjects for Teaching Strategies Inventory II with one exception. The sample excluded all first year students on the ground that they were are not yet familiar with the teaching styles used by their teachers.

Research Instruments

Three instruments were used in the collection of the data. These were Witkin's Group Embedded Figures Test. The Teaching Strategies Inventory I, and the Teaching Strategies Inventory II were developed by the researcher.

The First Instrument

In Witkin's Group Embedded Figures Test (GEFT) a teacher is given a booklet including various geometric figures and is asked to locate identified simple figures within larger more complex figures. The Group Embedded Figures Test was used to determine teachers' learning styles as Field Sensitive and Field Independent. The test is done in twelve minutes. The first section composed of seven figures is done in two minutes. The remaining two sections comprise nine figures

each, and done in five minutes each. The second and third sections are more complex than the first because the first is used to help the subject to get acquainted with the test, and it is not counted. The criteria of judgment for who is Field Sensitive or Field Independent was given by Witkin who divided the eighteen scores into four quartiles as follows:

Table 1: GEFT *Correct Number

Quartiles	Men	Women
FS $\left\{ \begin{array}{l} 1 \\ 2 \end{array} \right.$	$\left. \begin{array}{l} 0-9 \\ 10-12 \end{array} \right\}$ FS	$\left. \begin{array}{l} 0-8 \\ 9-11 \end{array} \right\}$ FS
FI $\left\{ \begin{array}{l} 3 \\ 4 \end{array} \right.$	$\left. \begin{array}{l} 13-15 \\ 16-18 \end{array} \right\}$ FI	$\left. \begin{array}{l} 12-14 \\ 15-18 \end{array} \right\}$ FI
N	155	242
Mean	12.0	10.8
S.D	4.1	4.2

(Witkin, Oltman, and Karp. 1971,28).

*Correct is the word used in the title of this table by Witkin, and indicates only if the embedded figure was found. It does not imply right and wrong.

Teaching Strategies Inventory I and II

The Teaching Strategies Inventory I and II were developed from the teaching strategies recommended for teaching African college students (Bowen and Bowen 1994). These teaching strategies tend to be more Field Sensitive than Field Independent. They were considered because of the following:

1. That African college students tend to be more Field

could be made if the Field Sensitive teachers preferred a particular teaching style different from the Field Independent teachers. It was also developed to identify if teachers in theological colleges use a Field Sensitive teaching style since research shows that their students tend to be more Field Sensitive than Field Independent.

The two sets of Teaching Strategies Inventory were developed to identify the following areas:

Table 2: Items tested by the Teaching Strategies Inventory I & II

01. A. Provision of the course outline to each student
02. B. Following the course outline in an orderly fashion
03. C. Informing students about changes made in the course syllabus
04. D. Providing and explaining performance objectives
05. E. Giving a general overview of each topic before getting into its details
06. F. Assigning reading related to the subject
07. G. Encouraging students to learn in groups
08. H. Setting exams from course objectives
09. I. Being free with students outside the classroom
10. J. Giving frequent feedback for students' performance
11. K. Checking that students take good notes for the lesson
12. L. Using lectures
13. M. Using an overhead projector
14. N. Using other teaching aids
15. O. Answering students' questions
16. P. Encouraging class discussions
17. Q. Giving varied exams
18. R. Helping individual students with academic problems
19. S. Modeling for Students
20. T. Preparing and organizing each lesson.

The course outline is very important in the teaching learning process because it guides the teacher in what he is going to do throughout the semester. It helps the teacher to teach his course systematically, gives all information he wants the students to know about the course such as: assigned readings, course objectives, due dates for exams and

other course requirements, just to mention a few. For the student, it helps him/her to know what the teacher expects of him/her at the end of the course in terms of what he/she should be prepared for during exams through course objectives, additional readings, term papers, projects and their due dates (Ayot and Patel 1992).

Informing students about changes made in the course outline is very important as a teaching strategy. At the beginning of the semester, students plan how they are going to study and hand in all assignments and requirements. They know what should be done on which dates. For this reason, the teacher who makes any changes in the course outline without informing students brings a lot of confusion, disturbance and inconvenience to the students' learning (McKeachie 1994).

Providing course objectives through the course outline only is not enough. It is necessary that at the beginning of the course the teacher explains performance objectives to prevent each student from interpreting them each in his own way.

From the student's point of view, preparing and organizing each lesson is qualification number one for a good and effective teacher (Olander 1994). Having prepared and organized each lesson, the delivery of the lesson is so important because it is through delivery that communication between the teacher and the students takes place (Ayot

and Patel 1992).

The general overview of the lesson before getting into its details sets the mood for the class and gives the direction which the course is going to take.

As the teacher lectures, using various teaching aids to clarify and explain the points he is making, it is necessary for him to make sure that the students are taking notes of what he is teaching because this helps the student to have something to refer to when preparing for exams or a repertoire of reference whenever he needs it (McKeachie 1994).

The teacher is also expected to encourage students to ask questions about things they do not understand in the lesson and he should be ready to answer their questions (McKeachie 1994). For students who tend to be more Field Sensitive, it is necessary that the teacher organizes them into small groups so that they can learn and discuss together assigned topics in class or out of class (McKeachie 1994).

After class, students are happy to have something to read that is related to what was learned in the classroom. The teacher should avoid telling students to choose what they read but as he prepares for the lesson, he should be able to choose readings related to the subject and assign them to the students (McKeachie 1994).

As the teacher evaluates the students' performance, it is

usefulness cross-culturally (D. Bowen 1984; E. Bowen 1984; Buconyori 1991; Witkin and Berry 1975 and others). For this reason, there was no need to make any cultural adaptation.

Second and Third Instruments

Teaching Strategies Inventory I, was developed to identify teaching styles preferred by theological college teachers in the past. Verbs used are in simple past tense. Teaching Strategies Inventory II, was developed to identify teaching styles used by theological teachers at present. Verbs used are in present tense.

At first, the researcher developed an inventory of eighty items to identify twenty teaching strategies. This means that four items were to identify one teaching strategy.

After developing Inventory I and II, they were sent to three experts for validation. The three were considered because of their expertise in the area of teaching and learning. Each of them did his/her doctoral dissertation in the same area. After reading through the inventory the main concerns were:

1. Both sets of inventory were too long, especially the one for the students, which required each student to identify the teaching strategies from one to ten of his teachers.
2. Both sets of inventory contained positive and negative items, hence, making it difficult for the data analysis.

3. A recommendation was made to reduce the item from eighty to forty since many items were to identify one teaching strategy.
4. A recommendation was made about the rating rank that is: "Never" which was equal to zero, "Rare" which was equal to one, "Sometimes" which was equal to three, "Often" which was equal to four and "Always" which was equal to five, to change them to "Rarely", equal to one, "Sometimes", equal to three and "Usually", equal to five, and during the data analysis to multiply any score for "Rarely" by one, "Sometimes" by three, and "Usually" by five.

After considering comments and recommendations made through discussions and written on validity sheets, the researcher adjusted accordingly the two sets of Teaching Strategies Inventory by making all items positive, and the rating rank was changed from never, rare, sometimes, often, always, to rarely, sometimes, and usually. The number of items were not changed, they remained eighty as before.

Pre-Test

After adjusting the two sets of Teaching Strategies Inventory, an appointment was made with African Nazarene University for pre-test of the instruments. After permission was given the pre-test was undertaken. Three lecturers and ten students participated in this pre-test. On each Inventory given to all participants a sheet of paper was attached so that they could make their comments and recommendations about the clarity of the items, the clarity of the language for college students, the length of the Inventory, and any other comments they might have about the Inventory. Their main concerns were:

1. The items in the Inventory were clear but there was a repetition in some items testing the same area.
2. The language used was clear for college students.
3. They questioned if the teaching strategies in the Inventory matched with the college level teaching strategies because for them, all the items related to primary and secondary school level teaching strategies since in college what is needed is lecture method only.
4. The two sets of Teaching Strategies Inventory were too long, there was need to make them shorter.

Final Instruments

After pre-test, there was need to refine the instruments. Three students taking "College Teaching Course" were consulted so that they could help in the final refinement of the instruments. The following changes were made:

1. The Inventory items were reduced from eighty to forty.
2. A tally sheet was constituted to help students tally the teaching strategies of their teachers on one sheet instead of using a separate sheet for each teacher (see Appendix D).
3. A criteria of judgment for data analysis was set as follows:
 - a. Any teaching strategy that was scored for above 65% or $\frac{2}{3}$ of the scores was considered to be favorable to the entire group.
 - b. Any teaching strategy that was scored for between 65% and 50% was considered to be less favorable to the entire group.
 - c. Any teaching strategy that was scored for below 50% was considered to be unfavorable to the entire group.
 - d. Any preference or use above 13 or $\frac{2}{3}$ of the 20 teaching strategies listed in the Inventory was considered to be a Field Sensitive teaching style for the entire group.

- e. Any preference or use between 13 (2/3) and 6 (1/3) of the 20 teaching strategies listed in the Inventory was considered to be a teaching style in-between Field Sensitive and Field Independent teaching styles for the entire group.
- f. Any preference or use below 6 or 1/3 of the 20 teaching strategies listed in the Inventory was considered to be a Field Independent teaching style for the entire group.

Having refined the instruments, the researcher took them to the thesis supervisor for approval before being used on operational ground. To ensure quality results, the thesis supervisor suggested the following as necessary during the administration of the instruments:

- i. A clear explanation be given to students before they participated in this study.
- ii. Instead of using only a letter to represent each teacher, it was necessary that the name of the teacher be written under the letter representing the same to help the students tally in the appropriate place for the appropriate person. Also this would help the researcher to analyze the data accurately.

Validity to identify the teaching styles

As mentioned earlier in this chapter, the second and third instruments were developed from the teaching strategies recommended for African college students (Bowen and Bowen 1995). A question could be asked here: Are these instruments valid to identify the teaching styles used in theological colleges?

On the one hand, they are able to identify the Field Sensitive teaching style by providing other necessary

details about it. This is when the 2/3 of all the twenty items listed in the Inventory are scored for above 65%. And the details can be analyzed by considering scores for each item that composes the Inventory.

On the other hand, it is able to identify the Field Independent teaching style if the 2/3 of the twenty items that composes the Inventory are scored for below 65%. The instruments cannot provide more details about the Field Independent teaching style. If any details about the Field Independent teaching style are needed, then there is need for a different instrument which can provide more information about the Field Independent teaching style.

Data Analysis

After the instruments were refined, they were ready to be used on operational ground for collecting data. Scores from the Group Embedded Figures Test (GEFT) were analyzed according to the manual, "A manual for the Group Embedded Figures Test" (1971), and the teaching styles of theological colleges teachers were identified.

Scores from the Teaching Strategies Inventory I and II were analyzed according to the criteria of judgment set for analysis. Scores for "Rarely" were multiplied by one, scores for "Sometimes" were multiplied by three, and scores for "Usually" were multiplied by five before percentages were calculated. Thereafter, the teaching styles preferred and

used by two Kenyan theological college teachers were identified.

CHAPTER FOUR

FINDINGS AND DATA INTERPRETATION

The purpose of this study was to explore if teachers in two Kenyan theological colleges teach according to their predominant learning styles or according to the teaching styles used by the teachers who most impressed them during their college studies.

As proposed in chapter three, the data to be collected included: the learning styles of teachers in two theological colleges, teaching styles preferred by theological college teachers during their college studies, and teaching styles used by the same teachers in two Kenyan theological colleges.

This study was done in two theological colleges: Kenya Highlands Bible college (KHBC) and East Africa School of Theology (EAST).

The total sample was composed of 61 subjects, 16 teachers and 45 students. At KHBC there were 11 teachers and 30 students. At EAST there were 5 teachers and 15 students.

The data was collected in three ways:

1. The Group Embedded Figures Test (GEFT) was used to identify teachers' learning styles.

2. The Teaching Strategies Inventory I (TSI) was used to identify teaching styles preferred by teachers during their college studies.
3. The Teaching Strategies Inventory II (TSI) was used to identify teaching styles used by teachers in the selected Kenyan theological colleges.

Research Question 1

What are the learning styles of teachers in selected Kenyan theological colleges?

The GEFT was administered to 16 teachers of two theological colleges; 11 teachers from Kenya Highlands Bible College (KHBC) and 5 teachers at the East Africa School of Theology (EAST).

Results of the test:

The findings show that teachers scored differently with 75% Field Sensitive and 25% Field Independent. The scores of the entire population are shown in Table 3.

Table 3: Mean and Frequency of GEFT Scores for the Entire Population

Scores	KHBC	EAST	Total
0	1	0	1
1	2	0	2
2	0	1	1
3	2	0	2
4	1	0	1
5	1	0	1
6	0	0	0
7	0	0	0
8	0	0	0
9	0	0	0
10	0	1	1
11	1	1	2
12	0	1	1
13	1	1	2
14	0	0	0
15	2	0	2
16	0	0	0
17	0	0	0
18	0	0	0
Mean	7.6	10.3	8.5

A comparison of males and females of the entire population shows that males tended to be more Field Sensitive than females. Percentages are shown in Table 4.

Table 4: Mean and Frequency and Percentage of F-S/F-I Male and Female

Gender	Number	Mean	F-S	Mean	%	F-I	Mean	%
Male	13	7.9	11	6.8	84.6	2	14.0	15.3
Female	3	11.1	1	4.5	33.3	2	14.0	66.6
Total	16	8.5	12	6.6	75.0	4	14.0	25.0

Similarly, a comparison of the two colleges shows that teachers from EAST tended to be more Field Sensitive than Teachers at KHBC. Percentages are shown in Table 5.

Table 5: GEFT scores and Means of F-S/F-I Teachers from KHBC and EAST

College	Number	Male	Female	F-S	%	F-I	%
KHBC	11	8	3	8	72.7	3	27.7
EAST	5	5	0	4	80.0	1	20.0
Total	16	13	3	12	75.0	4	25.0
Mean	8.5	7.9	11.1	6.6		14.0	

These findings show that African teachers tended to be more Field Sensitive than teachers from the West. 100% of African teachers tested F-S while 33% of teachers from the West tested F-S. 0% of teachers from Africa tested F-I while 66.6% of teachers from the West tested F-I. The reason is that Africans develop and grow in an environment which cherishes doing things together while people from the West develop and grow in an environment which tends to cherish doing things independently. These differences are reflected in Table 6 below:

Table 6: Mean, Frequency and percentage of F-S/F-I teachers in Africa vs the West

Location	Number	Mean	F-S	Mean	%	F-I	Mean	%
Africa	10	7.1	10	5.8	100.0	0	0.0	00.0
The West	6	10.8	2	4.5	33.3	4	14.0	66.6
Total	16	8.5	12	6.6	75.0	4	14.0	25.0

Interpretation of findings

Each of the teachers who did the test has a biological and developmentally imposed set of personal characteristics that make the same teaching method effective for some and ineffective for others (Dunn, 1989).

The 75% of teachers who tested Field Sensitive have a global or wholistic learning style in which learning is influenced by the learner's environment or surroundings. When teachers were asked to try to find the simple forms in the complex figures of the GEFT by tracing them in pencil directly over the lines of the complex figure, they saw the complex figure as a whole, hence were unable to identify the simple

forms. It is the complex figure which was considered to be the field. Therefore, they were sensitive to the field in a way that they were unable to see the small parts composing the whole field. This applies to the way they learn. As the lesson is presented to them, the lesson material is considered to be the field. If the lesson is presented to them in a complex form they find it difficult to divide it into small parts which compose the whole lesson material.

The 25% of teachers who tested Field Independent have a learning style which is influenced more by the learner. When these teachers were asked to try to find the simple forms in the complex figures of the GEFT by tracing in pencil directly over the lines of the complex figure, they saw the complex as being composed of many small parts, hence were able to identify the simple forms. This applies to their way of learning in the sense that as the lesson is presented to them, the lesson material is considered to be the field so that even when it is presented to them in a complex form, they find it easy since they see the small parts which compose the whole lesson material.

Summary of Findings

As an answer to research question 1, it was found that:

1. Teachers have different learning styles. This agrees with the first assumption that every teacher has a distinctive learning style.
2. Teachers from EAST tended to be more Field Sensitive than teachers from KHBC.

3. All African teachers were Field Sensitive.
4. Female teachers tended to be more Field Independent than male teachers and all of them came from the West.
5. Teachers from the West were found to be predominantly Field Independent.

Research Question 2

What are the teaching styles which were preferred by theological colleges teachers during their college studies?

The Teaching Strategies Inventory I, was administered to 16 teachers of whom 11 were from KHBC and 5 from EAST, for them to rate the teaching strategies which were used by the teachers who most impressed them during their college studies. The inventory, composed of forty items (see Appendix C & D) was intended to identify twenty areas. This means that each area had two items. The inventory was meant to test the following teaching strategies:

01. Provision of course outline to each student A
02. Following course outline in an orderly fashion B
03. Informing students about changes made in course syllabus C
04. Providing and explaining performance objectives D
05. Giving a general overview of each topic E
06. Assigning readings related to the subject F
07. Encouraging students to learn in groups G
08. Setting exams from course objectives H
09. Being free with students outside the classroom I
10. Giving frequent feedback for students' performance J
11. Checking that the students take good notes for the lesson K
12. Using lectures L
13. Using an overhead projector M
14. Using other teaching aids N
15. Answering students' questions O
16. Encouraging class discussions P
17. Giving varied exams Q
18. Helping individual students with academic problems R
19. Modeling for students S
20. Preparing and organizing each lesson T

(The letter after each item represents the same item in the tables used for analysis description).

As a criteria of judgement the following were taken into consideration:

1. Any teaching strategy that was scored above 65% or the 2/3 of the scores was considered to be favorable to the entire group.
2. Any teaching strategy that was scored between 65% and 50% was considered to be less favorable to the entire group.
3. Any teaching strategy that was scored below 50% was considered to be unfavorable.
4. Any preference or use above 13 or 2/3 of the 20 teaching strategies listed in the Inventory was considered to be a Field Sensitive teaching style for the entire group.
5. Any preference or use between 2/3 and 1/3 of the 20 teaching strategies listed in the Inventory was considered to be a teaching style in-between the Field Sensitive and Field Independent teaching styles for the entire group.
6. Any preference or use below 6 or 1/3 of the 20 teaching strategies listed in the Inventory was considered to be a Field Independent teaching style.

The Teaching Style Inventory was administered to 16 teachers from KHBC and EAST and each teacher was requested to identify the teaching styles he/she preferred during his/her college studies by identifying the teaching styles which were used by the teacher who most impressed his/her life.

Table 7 below shows that teachers in the two selected Kenyan theological colleges preferred the following teaching strategies favorably: preparing and organizing each lesson (20.T), setting exams from course objectives (08.H),

encouraging class discussions (16.P), informing students about changes made in the course syllabus (03.C), following course outline in an orderly fashion (02.B), providing and explaining performance objectives (04.D), answering students' questions (15.O), modeling for students (19.S), providing course outline to each student (01.A), assigning readings related to the subject (06.F), helping individual students with academic problems (18.R), being free with students outside the classroom(09.N), using teaching aids (14.N), checking that students take good notes for the lesson (11.K).

Table 7: Summary of Teaching Styles/Strategies Preferred by Theological College Teachers during Their College Studies.

Item	Rarely		Sometimes		Usually		Corresponding Conclusion
	Scores	%	Scores	%	Scores	%	
01. A	2	1.7	24	17.6	110	80.8	Favorable
02. B	1	0.6	15	10.2	130	89.0	Favorable
03. C	3	2.1	9	6.3	130	91.5	Favorable
04. D	1	0.7	15	10.6	125	88.6	Favorable
05. E	4	3.3	39	33.0	75	63.5	Less Favorable
06. F	3	2.2	27	20.0	105	77.7	Favorable
07. G	13	14.2	33	36.2	45	49.4	Unfavorable
08. H	0	0.0	9	5.8	145	94.1	Favorable
09. I	0	0.0	36	26.4	100	73.5	Favorable
10. J	10	9.8	27	26.4	65	63.7	Less Favorable
11. K	5	4.1	30	25.0	85	70.8	Favorable
12. L	7	6.4	36	33.3	65	60.1	Less Favorable
13. M	15	19.2	33	42.3	30	38.4	Unfavorable
14. N	4	3.1	30	23.2	95	73.6	Favorable
15. O	0	0.0	18	12.1	130	87.8	Favorable
16. P	0	0.0	12	8.1	135	91.8	Favorable
16. Q	3	2.5	45	38.1	70	59.3	Less Favorable
18. R	4	3.1	27	21.4	95	75.3	Favorable
19. S	5	3.8	15	11.5	110	84.6	Favorable
20. T	0	0.0	0	0.0	160	100.0	Favorable

The findings show that fourteen teaching strategies were scored by teachers above 65%. This means that the fourteen teaching strategies were preferred by the entire group of teachers. Fourteen is above the 2/3 of the teaching strategies listed in the Inventory. This means that teachers in the two selected Kenyan theological colleges preferred a teaching style which tended to be more Field Sensitive than Field Independent because the teaching style preferred establishes a warm and personal learning environment, emphasizes personal aspects of instruction and allows interaction and discussion between the teacher and the students (Guild 1975). In general it is more student-centered. A careful analysis of the findings shows that the teaching style preferred by the entire group tended to emphasize aspects related to course description through the course outline, course students' feedback and classroom interaction through class discussions and asking and answering questions related to the course being taught.

Teachers from both colleges scored for four teaching strategies between 65% and 50%. The teaching strategies included: giving frequent feedback (10.J), giving a general overview of each topic before getting into its details (05.E), using lectures (12.L), and giving varied exams (17.Q). Since the teaching strategies were scored for below 65% this means that the teaching strategies were not preferred by the the majority of the teachers. This also means that concerning the four teaching strategies, the

entire group was divided having some who preferred a teacher who used the four teaching strategies usually while others preferred a teacher who used the same sometimes. This indicates that the teaching strategies were not preferable to the entire group.

The entire group of teachers scored for two teaching strategies below 50%. These included the following: encouraging students to learn in groups (07.G), and using an overhead projector (13.M). This means that the two teaching strategies were unfavorable. This is very significant to them because, the fact that they considered a teacher who did not encourage students to learn together and who did not use an overheard projector, to be the most impressive during their colleges studies, implies that the two teaching strategies were not very important to them.

A comparison of findings of the teaching strategies preferred by teachers from different colleges KHBC and EAST shows that there is a similarity of preferences. Teachers from both colleges scored for eleven teaching strategies above 65% or 2/3. The teaching strategies included: preparing and organizing each lesson (20.T), providing and explaining performance objectives (04.D), providing course outline to each student (01.A), modeling for students (19.S), following course outline in an orderly fashion (02.B), informing students about changes made in the course syllabus 03.C, assigning readings related to the subject

(06.F), setting exams from course objectives (08.H), using teaching aids, (15.O) answering students' questions (14.N), and encouraging class discussions (16.P). These preferences are shown in Tables 8 and 9.

By comparing the teachers' preference from KHBC and EAST, we have noticed that teachers scored for eleven teaching strategies above 65%. Since the teaching strategies scored for are between 2/3 and 1/3 of the twenty teaching strategies listed in the Inventory, KHBC and EAST teachers use a similar style which tends to be in-between Field Sensitive and Field Independent teaching styles.

Table 8: A Summary of Teaching Styles Preferred by KHBC Teachers during Their College Studies.

Item	Rarely		Sometimes		Usually		Corresponding Conclusion
	Scores	%	Scores	%	Scores	%	
01. A	2	2.2	18	20.0	70	77.7	Favorable
02. B	1	1.0	12	12.9	80	86.0	Favorable
03. C	3	3.7	6	6.7	80	89.8	Favorable
04. D	1	1.0	9	9.0	90	90.0	Favorable
05. E	5	6.0	27	32.9	50	60.9	Less Favorable
06. F	3	3.4	15	17.0	70	79.5	Favorable
07. G	5	11.6	18	41.8	20	46.5	Unfavorable
08. H	0	0.0	9	8.6	95	91.3	Favorable
09. I	0	0.0	6	5.6	100	94.3	Favorable
10. J	9	13.4	18	26.8	40	59.7	Less Favorable
11. K	4	5.0	21	26.2	55	68.7	Favorable
12. L	5	6.4	18	23.0	55	70.5	Favorable
13. M	9	15.5	24	41.3	25	43.1	Unfavorable
14. N	3	3.4	15	17.0	70	79.5	Favorable
15. O	0	0.0	9	8.6	95	91.3	Favorable
16. P	0	0.0	6	5.6	100	94.3	Favorable
17. Q	13	3.8	30	38.4	45	57.6	Less Favorable
18. R	1	1.0	12	12.9	80	86.0	Favorable
19. S	2	2.0	9	9.3	85	88.5	Favorable
20. T	0	0.0	0	0.0	110	100.0	Favorable

While teachers at KHBC scored for four teaching

strategies above 65%, teachers at EAST scored for the same below 65%. These teaching strategies include: being free with the students outside the classroom (09.I), checking that students take good notes for the lesson (11.K), using lectures (12.L), and helping individual students with academic problems (18.R). The scores indicate that the four teaching strategies were favorable to the entire group of KHBC teachers. Adding four teaching strategies which are peculiar to KHBC teachers to the eleven teaching strategies which are similar to EAST teachers, shows that KHBC teachers preferred fifteen teaching strategies compared to the entire group. Since fifteen is above the 2/3 this means that teachers at KHBC preferred a teaching style which tended to be more Field Sensitive than Field Independent.

While teachers at EAST scored for one teaching strategy above 65%, teachers at KHBC scored for it below 65%. This teaching strategy was that of giving a general overview of each topic before getting into its details (05.E). A comparative description is found in Tables 8 and 9.

Table 9: A Summary of Teaching Styles Preferred by EAST Teachers during Their College Studies.

Item	Rarely		Sometimes		Usually		Corresponding Conclusion
	Scores	%	Scores	%	Scores	%	
01. A	0	0.0	6	13.0	40	86.9	Favorable
02. B	0	0.0	3	6.9	40	93.0	Favorable
03. C	0	0.0	3	6.2	45	93.7	Favorable
04. D	0	0.0	6	11.5	45	88.2	Favorable
05. E	1	2.5	9	22.5	30	75.0	Favorable
06. F	0	0.0	12	37.5	30	93.7	Favorable
07. G	1	2.7	15	41.6	20	55.5	Less Favorable
08. H	0	0.0	3	6.2	45	93.7	Favorable
09. I	0	0.0	24	70.5	10	29.4	Unfavorable
10. J	2	5.8	12	35.2	20	58.8	Less Favorable
11. K	2	5.8	12	35.2	20	58.8	Less Favorable
12. L	2	6.6	18	60.0	10	33.3	Unfavorable
13. M	6	30.0	9	45.0	5	25.0	Unfavorable
14. N	1	2.5	9	22.5	30	75.0	Favorable
15. O	0	0.0	9	20.4	35	79.5	Favorable
16. P	0	0.0	6	13.0	40	86.9	Favorable
17. Q	0	0.0	15	37.5	25	62.5	Less Favorable
18. R	2	6.2	15	46.8	15	46.8	Unfavorable
19. S	2	5.2	6	15.7	30	78.9	Favorable
20. T	0	0.0	0	0.0	50	100.0	Favorable

This means that the (05.E) teaching strategy was favorable to the entire group of EAST teachers. The total teaching strategies preferred by EAST teachers is twelve. Since this figure is below the 2/3, this means that teachers preferred a teaching style that tended to be more Field Sensitive while some others preferred a teaching style which tended to be in-between Field Sensitive and Field Independent teaching styles. As a result of this, EAST teachers as a group preferred a teaching style which tended to be in-between Field Sensitive and Field Independent teaching styles.

Teachers from both colleges scored for four teaching strategies below 50%. The teaching styles were:

encouraging students to learn in groups (07.G), giving frequent feedback (10.J), using the overhead projector (13.M) and giving varied exams (17.Q). This indicates that the four were unfavorable to the entire group because it was unfavorable to some teachers and less favorable to others. To the teachers this means that a teacher who rarely or sometimes encourages students to learn in groups, gave frequent feedback, used an overhead projector, gave varied exams, as long as the same teacher used the remaining sixteen teaching strategies, he could still impress his students. By comparing the teachers' preferences we find that KHBC teachers preferred fifteen teaching strategies. Since this figure is above $2/3$, this means that they preferred a teaching style that tended to be more Field Sensitive than Field Independent. EAST teachers preferred twelve teaching strategies below $2/3$. This means that they preferred a teaching style which is in-between Field Sensitive and Field Independent teaching styles.

By comparing the F-S and F-I teachers from both colleges, the findings indicated that both scored for eleven teaching strategies above 65%. They included: informing the students about changes made in the course syllabus (03.C), providing and explaining performance objectives (04.D), assigning readings related to the subject (06.F), setting exams from course objectives (08.H), being free with students outside the classroom (09.I), using other teaching aids (14.N), answering students' questions (15.O), encouraging class

discussions (16.P), helping individual students with academic problems (18.R), modeling for students (19.S), and preparing and organizing each lesson (20.T). This indicates that their preference was similar for the entire group on these eleven teaching strategies. Since eleven is below the $\frac{2}{3}$ we can conclude that the preferred teaching style by both F-S and F-I tended to fall in-between the Field Sensitive and Independent teaching styles. Therefore, F-S and F-I teachers preferred a teaching style which is somehow different from their learning styles according to the GEFT findings. The description is found in Tables 10 and 11.

Table 10 indicates that F-S teachers scored for four teaching strategies above 65% for which F-I teachers scored below 65%. They include: providing the course outline to each student (01.A), following the course outline in an orderly fashion (02.B), giving general overview of each topic before getting into its details (05.E), and checking that students take good notes for the lesson (11.K).

Table 10: A Summary of Teaching Styles Preferred by F-S Teachers

Item	Rarely		Sometimes		Usually		Corresponding Conclusion
	Scores	%	Scores	%	Scores	%	
01. A	3	2.7	12	19.9	95	86.3	Favorable
02. B	2	1.6	3	2.5	115	95.8	Favorable
03. C	4	3.5	0	0.0	110	96.4	Favorable
04. D	2	1.7	9	7.7	105	90.5	Favorable
05. E	1	0.9	27	25.0	80	74.0	Favorable
06. F	4	4.1	18	18.5	75	77.3	Favorable
07. G	9	12.0	21	28.0	45	60.0	Less Favorable
08. H	0	0.0	15	12.5	105	87.5	Favorable
09. I	0	0.0	33	30.5	75	69.4	Favorable
10. J	11	14.6	24	32.0	40	53.3	Less Favorable
11. K	5	4.8	18	17.4	80	77.6	Favorable
12. L	7	8.5	30	36.5	45	54.8	Less Favorable
13. M	10	14.2	30	42.8	30	42.8	Unfavorable
14. N	1	0.8	21	18.7	90	80.3	Favorable
15. O	0	0.0	15	12.5	105	87.5	Favorable
16. P	0	0.0	12	9.8	110	90.1	Favorable
17. Q	3	3.1	36	38.2	55	58.5	Less Favorable
18. R	3	2.9	24	23.5	75	73.5	Favorable
19. S	5	4.7	15	14.2	85	80.9	Favorable
20. T	0	0.0	0	0.0	130	100.0	Favorable

This means that the four teaching strategies were preferred by the entire group of F-S teachers. Adding the four teaching strategies peculiar to F-S teachers to eleven similar to F-S and F-I teachers, we get the total of fifteen teaching strategies favorable to F-S teachers. This means that F-S teachers preferred a teaching style which tended to be more Field Sensitive than Field Independent. Therefore, F-S teachers preferred a teaching style that is similar to their learning style according to the GEFT results.

Table 11 below indicates that F-I teachers scored for three teaching strategies above 65% for which F-S scored below 65%. They included: giving frequent feedback (10.J), using lectures (12.R), and giving varied exams (17.Q).

Table 11: A Summary of Teaching Styles Preferred by F-I Teachers

Item	Rarely		Sometimes		Usually		Corresponding conclusion
	Scores	%	Scores	%	Scores	%	
01. A	0	0.0	12	37.5	20	62.5	Less Favorable
02. B	0	0.0	12	37.5	20	62.5	Less Favorable
03. C	1	3.3	9	30.0	20	66.6	Favorable
04. D	0	0.0	6	16.6	30	83.3	Favorable
05. E	3	13.6	9	40.9	10	45.4	Unfavorable
06. F	0	0.0	9	26.4	25	73.5	Favorable
07. G	6	50.0	6	50.0	0	0.0	Unfavorable
08. H	0	0.0	0	0.0	40	100.0	Favorable
09. I	0	0.0	3	7.8	35	92.1	Favorable
10. J	1	2.9	3	8.8	30	88.2	Favorable
11. K	2	7.9	9	34.6	15	57.6	Less Favorable
12. L	1	3.1	6	18.7	25	78.1	Favorable
13. M	7	70.0	3	30.0	0	0.0	Unfavorable
14. N	3	11.5	3	11.5	20	76.1	Favorable
15. O	0	0.0	3	7.8	35	92.1	Favorable
16. P	0	0.0	0	0.0	30	100.0	Favorable
17. Q	1	3.3	9	30.0	20	66.6	Favorable
18. R	1	2.9	3	8.8	30	88.2	Favorable
19. S	1	2.7	0	0.0	35	97.3	Favorable
20. T	0	0.0	0	0.0	40	100.0	Favorable

This means that the three teaching strategies were preferred by the entire group of F-I teachers. The total number of teaching strategies preferred by F-I teachers is fourteen. This means that the F-I teachers preferred a teaching style which tended to be more Field Sensitive than Field Independent because fourteen is above the 2/3 of the twenty teaching strategies listed in the Inventory. Therefore, F-I teachers preferred a teaching style which was different from their learning styles according to the GEFT scores.

Both F-S and F-I teachers scored for two teaching strategies below 50%. They included: encouraging students to learn in groups (07.G), and using an overhead projector (13.M). A careful observation shows that while F-I scored zero for

the two, F-S teachers scored consecutively 60% and 42% for the same. The fact that they considered a teacher who did not encourage students to learn together and who did not use an overhead projector, to be those who most impressed them during their college studies, implies that the two teaching strategies are not very important to them.

By comparing the two groups of F-S and F-I teachers, the findings indicate that both preferred a teaching style which tended to be more Field Sensitive than Field Independent because their preference was above 2/3 of the twenty teaching strategies listed in the Inventory. There is not much difference identified since the F-S teachers scored for fifteen while the F-I teachers scored for fourteen. The fact that both F-S and F-I teachers preferred a teaching style which tended to be more Field Sensitive means a lot in teaching-learning process. It implies that a Field Sensitive teaching style can cater for both F-S and F-I learners.

Summary of findings

As an answer to research question 2 it was found that:

1. Teachers in two Kenyan theological colleges preferred a teaching style that tended to be Field Sensitive rather than Field Independent.
2. Teachers at KHBC preferred a teaching style that tended to be more Field Sensitive than Field Independent.
3. Teachers at EAST preferred a teaching style that tended to be in-between the Field Sensitive and Field Independent.

4. F-S teachers preferred a teaching style that tended to be more Field Sensitive than Field Independent.
5. F-I teachers preferred a teaching style that tended to be more Field Sensitive than Field Independent.
6. Field Sensitive teaching style can cater for both F-S and F-I learners.

Research Question 3

What are the teaching styles used by teachers in the two Kenyan theological colleges?

The third instrument which was the Teaching Styles Inventory II was administered to 45 students, 30 from KHBC and 15 from EAST. The inventory had the same items as what was given to the teachers. The students were to identify teaching styles used by their teachers. The researcher did not prefer to use the rating technique where teachers do the rating of teaching strategies they use. This self-rating has two procedures. First, the subject is asked to fill out the rating scale or a questionnaire; this procedure is called "direct procedure". Second, the subject is asked to indicate his likes or dislikes for a variety of responses of likes and dislikes. This procedure is called "indirect procedure". The latter was used under research question 2.

The researcher chose to use the rating procedure by students because self-rating technique using direct method of collecting information has not been found reliable. The method has been replaced by rating technique in which

motives are rated by other observers. This technique is most useful in exploring unconscious motives which the subject himself may not be aware (Chauhan 1984).

Table 12 below shows that teachers in the two selected Kenyan theological colleges use the following teaching strategies: providing the course outline to each student (01.A), following the course outline in an orderly fashion (02.B), informing students about changes made in the course syllabus (03.C), providing and explaining performance objectives (04.D), setting exams from course objectives (08.H), answering students' questions (15.O), encouraging class discussions (16.P), and preparing and organizing for each lesson (20.T).

Table 12: Summary of Teaching Styles Used by Teachers in Selected Kenyan Theological Colleges.

Item	Rarely		Sometimes		Usually		Corresponding conclusion
	Scores	%	Scores	%	Scores	%	
01. A	10	2.6	43	8.6	432	89.0	Favorable
02. B	18	3.7	72	15.0	389	81.2	Favorable
03. C	23	4.8	70	14.6	382	80.4	Favorable
04. D	44	9.2	94	19.6	340	71.1	Favorable
05. E	98	20.5	197	41.2	183	38.2	Unfavorable
06. F	52	10.7	132	27.2	300	61.9	Less Favorable
07. G	90	18.8	143	29.9	244	51.1	Less Favorable
08. H	23	4.7	123	25.5	335	69.6	Favorable
09. I	114	23.8	182	38.0	182	38.0	Unfavorable
10. J	115	24.5	179	38.2	174	37.1	Unfavorable
11. K	58	12.3	120	25.5	292	62.1	Less Favorable
12. L	112	23.9	96	20.5	260	55.5	Less Favorable
13. M	269	55.5	95	19.6	120	24.7	Unfavorable
14. N	94	20.0	112	23.8	264	56.1	Less Favorable
15. O	45	9.4	114	23.8	319	66.7	Favorable
16. P	19	3.8	133	27.0	339	69.0	Favorable
17. Q	82	17.3	148	31.3	242	51.2	Less Favorable
18. R	86	17.5	160	32.6	244	49.7	Unfavorable
19. S	60	12.3	110	22.7	314	64.8	Less Favorable
20. T	26	5.3	94	19.3	366	75.3	Favorable

Teachers from both colleges KHBC and EAST scored for eight teaching strategies above 65%. This means that the eight teaching styles are favorable to the entire group of teachers. Since eight teaching strategies are below the 2/3 of twenty listed in the Inventory, the teaching style used by theological college teachers as a group tends to be in-between the Field Sensitive and Field Independent teaching style. Therefore, teaching styles used by teachers in the two selected theological colleges are different from the teaching styles they preferred during their college studies because according to the scores of their preference, they preferred a teaching style which tended to be more Field Sensitive than Field Independent.

Teachers from both colleges scored for six teaching strategies below 65% and above 49%. These teaching strategies included: assigning readings related to the subject (06.F), checking that students take good notes for the lesson (11.K), using lectures (12.L), using teaching aids (14.N), giving varied exams (17.Q), and helping individual students with academic problems (18.R).

These findings indicate that the six teaching strategies are less favorable for the entire group, because while some teachers usually use them, others use them only sometimes. Since the percentage is below 65, the six teaching strategies are less favorable to the entire group. These teaching strategies are used sometimes and usually improves the teaching style for the entire group. However, since six does not reach the 2/3 of the twenty teaching strategies listed in the Inventory, their preference remains in-between Field Sensitive and Field Independent teaching style.

Teachers from both colleges use four teaching strategies below 50%. They include: giving a general overview of each topic before getting into its details (05.E), being free with students outside the classroom (09.I), giving frequent feedback for students' performance (10.J), and sing an overhead projector (13.M). This means that some teachers use the four teaching strategies sometimes while others use them rarely. Since the percentage is below 50%, this means

that the teaching strategies are unfavorable to the entire group.

A comparison of the teaching strategies used in each of the two colleges shows similarities in the following teaching strategies: providing course outline to each student (01.A), informing students about changes made in the course syllabus (03.C), answering students' questions (15.O), and encouraging class discussions (16.P). The description is found in Tables 13 and 14. The findings show that all teachers use four teaching strategies above 65%. The four teaching strategies are favorable to the entire group of teachers. This means that a teaching style common to all teachers as a group tends to be more Field Independent than Field Sensitive because four is below 1/3 of the twenty teaching strategies listed in the Inventory.

Table 13 shows that teachers at KHBC use five teaching strategies above 65% while teachers at EAST use the same teaching strategies below 65%. These include: following course outline in an orderly fashion (02.B), providing and explaining performance objectives (04.D), setting exams from course objectives (08.H), modeling for students (19.S), and preparing and organizing each lesson (20.T). Teachers at EAST do not use any teaching strategy above 65% which is not used by teachers at KHBC.

Table 13: Summary of Teaching Styles Used by KHBC Teachers

Item	Rarely		Sometimes		Ususally		Corresponding Conclusion
	Scores	%	Scores	%	Scores	%	
01. A	5	1.3	14	3.8	347	94.8	Favorable
02. B	11	3.0	37	10.2	314	86.7	Favorable
03. C	21	5.8	45	12.4	295	81.7	Favorable
04. D	33	9.1	57	15.8	270	75.0	Favorable
05. E	84	23.3	151	42.0	124	34.5	Unfavorable
06. F	42	11.5	85	23.2	238	65.2	Less Favorable
07. G	76	21.1	109	30.7	175	48.6	Unfavorable
08. H	16	4.4	84	23.2	262	72.3	Favorable
09. I	101	28.0	151	41.9	108	30.0	Unfavorable
10. J	111	30.9	143	39.8	105	29.2	Unfavorable
11. K	46	13.1	83	23.6	222	63.2	Less Favorable
12. L	93	26.6	72	20.6	184	52.7	Less Favorable
13. M	235	64.3	71	19.4	59	16.1	Unfavorable
14. N	83	23.7	76	21.7	191	54.5	Less Favorable
15. O	37	10.2	84	23.2	240	66.4	Favorable
16. P	17	4.4	105	27.7	251	67.8	Favorable
17. Q	80	22.5	108	30.5	166	46.8	Unfavorable
18. R	75	20.1	122	32.7	175	47.0	Unfavorable
19. S	52	14.2	72	19.6	242	66.1	Favorable
20. T	14	3.8	56	15.4	293	80.7	Favorable

Since scores show that teachers at KHBC use more teaching strategies than teachers at EAST, this means that the teaching styles used in both colleges are different. KHBC teachers used nine teaching strategies while EAST used four only. This means that KHBC teacher's teaching style falls in-between the Field Sensitive and the Field Independent teaching styles. Therefore, the teaching style used by KHBC teacher differs from the teaching style they preferred during their college studies since results indicate that they preferred a teaching style which tended to be more Field Sensitive than Field Independent.

Teachers from both colleges use four teaching strategies below 65% and above 50%. These include: assigning

readings related to the subject (06.F), checking that students take good notes for the lesson (11.K), using lectures (12.L), and using other teaching aids (14.N). This means that the four teaching strategies are less favorable for the entire group of teachers because the percentage is below 65%. This indicates that some teachers usually use the four while others use them sometimes.

Table 14 shows that teachers at EAST use six teaching strategies between 65% and 50% but teachers at KHBC use of these styles is below 50%. These teaching strategies are: encouraging students to learn in groups (07.G), being free with students outside the classroom (09.I), giving frequent feedback for students' performance (10.J), using an overhead projector (13.M), giving varied exams (17.Q), and helping individual students with academic problems (18.R).

Table 14: A summary of Teaching Styles Used by EAST Teachers

Item	Rarely		Sometimes		Usually		Corresponding Conclusion
	Scores	%	Scores	%	Scores	%	
01. A	5	4.2	29	24.3	85	71.4	Favorable
02. B	8	6.7	35	29.6	75	63.5	Less Favorable
03. C	2	1.7	25	21.9	87	76.3	Favorable
04. D	11	9.3	37	31.3	70	59.3	Less Favorable
05. E	14	11.7	46	38.6	59	49.5	Unfavorable
06. F	10	8.4	47	39.4	62	52.1	Less Favorable
07. G	15	12.7	34	28.8	69	58.4	Less Favorable
08. H	7	5.8	39	32.7	73	61.3	Less Favorable
09. I	13	11.0	31	26.2	74	62.7	Less Favorable
10. J	14	11.7	36	30.2	69	57.9	Less Favorable
11. K	12	10.8	37	31.0	70	58.8	Less Favorable
12. L	19	15.9	24	20.1	76	63.8	Less Favorable
13. M	34	28.5	24	20.1	61	51.2	Less Favorable
14. N	11	9.1	36	30.0	73	60.8	Less Favorable
15. O	8	6.8	30	25.6	79	67.5	Favorable
16. P	2	1.6	28	23.7	88	74.5	Favorable
17. Q	2	1.6	40	33.8	76	64.4	Less Favorable
18. R	11	9.3	38	32.2	69	58.4	Less Favorable
19. S	8	6.7	38	32.2	72	61.0	Less Favorable
20. T	7	5.9	38	32.2	73	61.8	Less Favorable

The use of six teaching strategies between 65% and 50% means that the six are less favorable to the entire group of EAST teachers. It indicates that some teachers usually use them while others use them sometimes. This means that EAST teachers' teaching style tended to be more Field Independent than Field Sensitive. This shows that EAST teachers use a teaching style that is different from the teaching style they preferred during their college studies. This is because the findings show that they preferred a teaching style which tended to be more Field Sensitive than Field Independent.

Teachers from both colleges use two teaching strategies below 50%. This means that the two are unfavorable to the entire group. It indicates that some teachers use them

sometimes while others use them rarely.

A comparison of Field Sensitive and Field Independent teachers shows that there is a similarity of teaching strategies used by both groups. Similar teaching strategies are: providing the course outline to each student (01.A), following the course outline in an orderly fashion (02.B), informing students about changes made in the course syllabus (03.C), providing and explaining performance objectives (04.D), setting exams from course objectives (08.H), and preparing and organizing each lesson (20.T). By comparing the findings concerning the teaching strategies used by F-S and F-I teachers, six strategies are used above 65%. This means that the six teaching strategies are favorable to both F-S and F-I teachers. The fact that six strategies are below 1/3 of the twenty teaching strategies, the teaching style favorable to both groups tends to be more Field Independent than Field Sensitive.

Table 15 indicates that F-S teachers use three teaching strategies above 65% which are not used by F-I teachers. These are: answering students' questions (15.O), encouraging class discussions (16.P), and modeling for students (19.S).

Table 15: A Summary of Teaching Styles Used by F-S Teachers

Item	Rarely		Sometimes		Usually		Corresponding Conclusion
	Scores	%	Scores	%	Scores	%	
01. A	1	0.3	32	9.9	289	89.7	Favorable
02. B	9	2.8	43	13.4	268	83.7	Favorable
03. C	10	3.1	45	14.2	260	82.5	Favorable
04. D	30	9.3	63	19.6	228	71.0	Favorable
05. E	56	17.2	129	39.6	140	43.0	Unfavorable
06. F	31	9.5	88	27.2	204	63.1	Less Favorable
07. G	75	23.1	82	25.3	167	51.5	Less Favorable
08. H	18	5.6	82	25.5	221	68.8	Favorable
09. I	67	20.8	117	36.3	138	42.8	Unfavorable
10. J	83	26.1	113	35.5	122	38.3	Unfavorable
11. K	41	12.6	77	23.8	205	63.4	Less Favorable
12. L	72	22.3	63	19.5	187	58.0	Less Favorable
13. M	211	65.1	48	14.8	65	20.0	Unfavorable
14. N	74	24.0	60	19.4	174	57.2	Less Favorable
15. O	23	7.1	75	23.4	222	69.3	Favorable
16. P	9	2.7	81	24.6	238	75.5	Favorable
17. Q	56	18.0	97	31.1	158	50.8	Less Favorable
18. R	52	16.5	99	31.4	164	52.0	Less Favorable
19. S	34	10.4	74	22.7	217	66.7	Favorable
20. T	8	2.5	63	19.8	247	77.6	Favorable

This means that the F-S teachers use six teaching strategies common to F-I teachers and the three peculiar to them to make the total of nine teaching strategies. This makes the teaching style used by F-S teachers to fall in-between the Field Sensitive and Field Independent teaching styles because nine is between $2/3$ and $1/3$ of the teaching strategies listed in the Inventory. Therefore, F-S teachers use a teaching style that is different from the teaching style they preferred during their college studies. This is because according to the findings, F-S teachers preferred a teaching style which tended to be more Field Sensitive than Field Independent.

Both F-S and F-I teachers use five teaching strategies

between 65% and 50%. The teaching strategies include the following: assigning readings related to the course (06.F), encouraging students to learn in groups (07.G), checking that students take good notes for the lesson (11.K), using other teaching aids (14.N), and giving varied exams (17.Q). Being below 65% indicates that the five teaching strategies are not favorable to both groups. Among the F-S and F-I there are some teachers who use them sometimes while others usually use them.

Table 16 describes the findings showing that F-S teachers use two teaching strategies above between 65% and 50% which F-I use below 49%. These are: using lectures (12.L), and helping individual students with academic problems (18.R).

Table 16: A Summary of Teaching Styles Used by F-I Teachers

Item	Rarely		Sometimes		Usually		Corresponding Conclusion
	Scores	%	Scores	%	Scores	%	
01. A	5	3.4	11	6.9	143	89.9	Favorable
02. B	10	6.2	29	18.1	121	75.6	Favorable
03. C	13	8.1	25	15.6	122	76.2	Favorable
04. D	14	8.9	31	19.7	112	71.3	Favorable
05. E	42	27.0	68	43.8	45	29.0	Unfavorable
06. F	21	10.7	34	17.3	141	71.9	Favorable
07. G	16	10.3	61	39.3	78	50.3	Less Favorable
08. H	5	3.1	41	25.6	114	71.2	Favorable
09. I	47	30.1	65	41.6	44	28.2	Unfavorable
10. J	42	26.2	66	41.6	52	32.5	Unfavorable
11. K	17	10.8	43	27.3	97	61.7	Less Favorable
12. L	40	25.6	43	27.5	73	46.7	Unfavorable
13. M	58	36.0	48	29.8	55	34.1	Unfavorable
14. N	20	12.9	42	27.2	92	59.7	Less Favorable
15. O	22	13.8	39	24.5	98	61.6	Less Favorable
16. P	10	6.1	54	33.1	99	60.7	Less Favorable
17. Q	26	16.1	51	31.6	84	52.1	Less Favorable
18. R	34	20.6	51	30.9	80	48.4	Unfavorable
19. S	26	16.3	36	22.6	97	61.0	Less Favorable
20. T	13	8.1	27	16.9	119	74.8	Favorable

This means that the two strategies 12.L and 18.R are not favorable to all F-S teachers. Some use them usually while others use them sometimes.

Both F-S and F-I teachers use four teaching strategies below 50%. They include: giving general overview of each topic (05.E), being free with students outside the classroom (09.I), giving frequent feedback for students' performance (10.J), and using an overhead projector (13.M). This means that from both groups some teachers use the four rarely while others use them sometimes. A careful analysis of the percentages shown by the findings indicates that F-S teachers use a teaching style that is in-between Field Sensitive and Field Independent teaching styles.

Summary of findings

1. Teachers in the two selected Kenyan theological colleges use a teaching style that tends to be in-between Field Sensitive and Field Independent teaching styles.
2. Teachers at KHBC use a teaching style that tends to be in-between Field Sensitive and Field Independent teaching styles.
3. Teachers at EAST use a teaching style that tends to be more Field Independent than Field Sensitive.
4. F-S teachers use a teaching style that tends to be in-between Field Sensitive and Field Independent teaching styles.
5. F-I teachers use a teaching style that tends to be more Field Independent than Field Sensitive.

On the basis of the findings in research questions 1, 2, and 3, the following conclusions can be drawn:

1. That some teachers in the two selected Kenyan theological colleges were found to be Field Sensitive and others Field Independent;
2. That teachers in the two selected Kenyan theological colleges preferred a teaching style that tended to be more Field Sensitive rather than Field Independent;
3. That F-S teachers preferred a teaching style that tended to be more Field Sensitive than Field Independent;
4. That F-S teachers use a teaching style that tends to be in-between Field Sensitive and Field Independent teaching styles;
5. That F-I teachers preferred a teaching style that tended to be more Field Sensitive than Field Independent;
6. That F-I teachers use a teaching style that tends to be more Field Independent than Field Sensitive;

Teachers do not teach according to the teaching style of the teachers who most impressed them during their college studies because the findings show that Field Sensitive teachers preferred a teaching style that tended to be more Field Sensitive during their college studies, but they use a teaching style that tends to be in-between Field Sensitive and Field Independent teaching styles. Field Independent teachers preferred a teaching style that tended to be more Field Sensitive during their college studies, but they use a teaching style that tends to be more Field Independent. A careful observation shows that there is a close relationship of one's learning style and one's teaching style than the relationship between one's teaching style and the teaching style of the teacher who most impressed him/her when he/she was a student. This rejects assumption number three that every teacher's teaching style

is influenced to some degree by a former teacher whom he/she considered to be the best during his/her college studies.

Assumption number one affirmed that every teacher has a distinctive learning style. This was confirmed by the findings. Some teachers in the selected theological colleges were found to be Field Independent. Within the same quartiles of Field Sensitive teachers, some were found to be more sensitive than others and this was similar to the quartiles of Field Independent teachers because their scores within the same quartiles were different.

Assumption number two indicated that every teacher has a distinctive teaching style. This was confirmed by the findings. Considering each teacher individually, each had a teaching style different from the other. Even within each category of teaching styles, those using a Field Independent teaching style, each had a different emphasis on some aspects of the same teaching style according to the scores used to tally the twenty teaching strategies listed in the Inventory.

Assumption number three suggested that every teacher's teaching style is influenced to some degree by a former teacher's teaching style whom he/she considered to be the best during his/her college studies. The findings did not confirm this assumption. When the teaching styles preferred by teachers during their college studies and the teaching styles they use as they teach were compared, the two did not

show any indication that there was any similarity. Field Sensitive teachers preferred a teaching style that tended to be more Field Sensitive than Field Independent but they used a teaching style which tended to be in-between Field Sensitive and Field Independent teaching styles. Field Independent teachers preferred a teaching style which tended to be more Field Sensitive than Field Independent but they used a teaching style which tended to be more Field Independent than Field Sensitive. A careful observation indicates that there is some relationship of the learning style and the teaching style rather than that between the best teacher's teaching style with one's teaching style.

CHAPTER FIVE

CONCLUSION, SUMMARY, IMPLICATIONS, AND RECOMMENDATIONS

Conclusion

Literature defined learning as the process by which we acquire and retain attitudes, knowledge, understanding, skills and capacities that cannot be attributed to inherited behaviour patterns or physical growth (Farrant 1983). Literature reviewed also defines teaching as the role of the teacher which involves teachers' preparation for their classes, guiding, or assisting the learning of students, checking students' progress, and setting a good example for their students.

The purpose of this study was to explore if teachers in Kenyan theological colleges teach according to their own learning styles or according to the teaching styles of teachers who most impressed them during their college studies.

To be able to do this 3 questions were asked:

1. What are the learning styles of teachers in two Kenyan theological colleges?
2. What were the teaching styles preferred by theological college teachers during their college studies?

3. What are the teaching styles used by teachers in two Kenyan theological colleges?

On learning styles, literature reviewed has revealed that people are either field sensitive or field independent. African teaching staff tended to be more field sensitive than those from the West teaching in these institutions.

Concerning teaching styles preference, literature reviewed seems to indicate that one prefers a teaching style that matches with one's predominant learning style.

Regarding teaching styles literature reviewed seems to be divided. On the one hand literature seems to indicate that teachers tend to teach according to their predominant learning styles. On the other hand, literature seems to indicate that teachers teach the way they were taught rather than according to their own learning style.

In order to answer the research questions, three instruments were administered to a sample of 61 subjects from the two selected Kenyan theological colleges. The instruments consisted of the Group Embedded Figures Test, The Teaching Strategies Inventory I for college teachers, and the Teaching Strategies Inventory II for college students.

Summary of Findings

As an answer to the research questions it was found that

01. Every teacher has a distinctive learning style. This confirms the first assumption which says that every teacher has a distinctive learning style.

02. Teachers at EAST tended to be more Field Sensitive than teachers at KHBC.
03. All African teachers in the two theological colleges were found to be predominantly Field Sensitive.
04. Female teachers in the two theological colleges tended to be more Field Independent than male teachers.
05. Teachers from the West were found to be predominantly Field Independent.
06. Teachers from the two colleges preferred a teaching style which tended to be more Field Sensitive than Field Independent.
07. Teachers at KHBC preferred a teaching style which tended to be more Field Sensitive than Field Independent.
08. Teachers at EAST preferred a teaching style which tended to be in-between Field Sensitive and Field Independent teaching styles.
09. Although F-S teachers preferred a teaching style which tended to be more Field Sensitive, they used a teaching style which tended to be in-between Field Sensitive and Field Independent teaching styles.
10. Although F-I teachers preferred a teaching style which tended to be more Field Sensitive than Field Independent they tended to use a teaching style which was more Field Independent than Field Sensitive.
11. Teachers preferred a teaching style which was different from the teaching style they use.
12. The fact that both F-S and F-I teachers preferred a teaching style which tended to be more Field Sensitive than Field Independent implies that a Field Sensitive teaching style can cater for both F-S and F-I learners.
13. Teachers in Kenyan theological colleges used a teaching style which tends to be in-between Field Sensitive and Field Independent teaching styles.
14. Teachers at KHBC used a teaching style which tends to be in-between Field Sensitive and Field Independent teaching styles.
15. Teachers at EAST used a teaching style which tends to be Field Independent than Field Sensitive.

16. There was an indication showing a tendency to use a teaching style which tended to relate to one's own learning style than using a teaching style related to the teaching style of the teacher who most impressed one's life during his college studies.

Implications for teaching-learning process

Teachers in theological colleges train people who in turn will be teachers in various ministries of the Church, such as primary and secondary schools, colleges and universities, Sunday schools and Bible study groups, theological education by extension and other educational ministries of the Church. The findings of this study have some important implications for teachers in theological colleges and other various educational ministries of the Church. Theological college educators need to evaluate and improve their effectiveness as model teachers. A serious consideration of the findings of this study and applying implications can help educators to enhance their teaching effectiveness.

There appears to be a relationship between one's learning style and one's teaching style. Literature seems to indicate that one's predominant learning style influences his teaching style. If faculty members of theological colleges and educators in Church ministries want to improve their effectiveness in modeling for students, then there are a number of factors they should consider. These include:

1. The teacher should not only know and use the teaching style which he/she most prefers but he/she should also know different teaching styles so that he/she may be

able to consciously adapt and adjust his/her teaching styles as time calls for it.

The knowledge of different teaching styles enables the teacher to cultivate various teaching styles and learn new models of teaching behaviors that contribute to students' learning. When trying to match one's teaching style to the learning styles of the students, it is often useful to plan and even rehearse each lesson in order to avoid reverting to the strategies best suited one's own preferred style.

2. The teacher should not only know his learning style but he should also know the learning styles of his students so that he can match his teaching style with students' learning styles. Literature seems to support the fact that students learn best when they are taught through their learning styles. Through the use of learning styles tests, the teacher should be able to know the learning styles of his students and teach them accordingly.
3. The teacher should not only teach well but he/she should also be a model for students he/she is teaching. As the teacher leads, teaches, motivates and manages the class effectively students will learn effectively and be well equipped for future ministry.

4. The fact that both Field Sensitive and Field Independent teachers preferred a teaching style that tended to be more Field Sensitive than Field Independent implies that a global teaching strategy should be used especially by teachers who have students with different learning styles in their classrooms (See Appendix B).

6. Field Independent teachers who teach Field Sensitive students should develop a teaching style that matches the learning styles of the students, and Field Sensitive teachers who teach field independent students should develop a teaching style that matches the learning styles of their students as students learn more if they are taught in their preferred style.

Recommendations

1. Teachers should study different learning styles so that they can appreciate the variety of teaching styles among their students and vary their teaching styles to various situations.
2. Teachers should know the learning styles of their students. This will help teachers match their teaching styles with students' learning styles as they teach.
3. Teaching and learning styles should be considered not only in a college setting but also in various educational ministries of the Church.
4. Literature says that learning style tends to be stable after the age of 17. A study should be done to find out if characteristics that go with F-S and F-I learning styles change as a result of education.
5. A further study should be carried out to find out why Africans appear to be more Field Sensitive than Field Independent.

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APPENDIX A

TEACHING STRATEGIES FOR AFRICAN STUDENTS

1. At the beginning of a new study, take time to give an outline of all that will be included in the study. If it is an adult class, give a printed outline of the course you will be following, or take time to follow the outline given in the quarterly if you use one. Field-sensitive students learn from a class that is well outlined; however, they are not analytical and cannot easily construct their own outline. There is for a highly structured situation, and this outline can help to bring this needed structure. This kind of organization will aid the student's performance. If you put the general outline for them, or for the particular study you are going to do, on chart paper and display it where it can be referred to week after week, the students will find it helpful.

2. Follow the outline you have given in an orderly fashion. If you must change it for some reason, make the class aware of the changes ahead of time. Many of your field-sensitive students will learn best when they know week after week where they are going.

3. Provide and explain objectives. Clearly explained objectives will aid in making the purpose and the main principles of the lessons obvious. This will strengthen the structure as well as make clear the teacher's expectations.

4. At the end of the period ask questions of the students which are taken directly from the objectives that you gave at the beginning of the class period.

5. Each time you come to a new topic in the lesson, present a holistic overview of that topic before getting into the details. Field-sensitive students learn better when they know from the start where the topic is leading.

6. At the end of the lesson, give students something to look up and read that has to do with the lesson. Many field-sensitive persons are visual and when given a specific reading assignment, either in the Bible, or some other book, it will strengthen the learning.

7. Encourage cooperation rather than competition. The field-independent student thrives on competition and you should have it for them. However, the field-sensitive student prefers cooperative efforts.
8. Often put class members in pairs, or in small groups and have them discuss or work together on a project. Learning will increase when they work together.
9. Be available to students out of class. Coming early, staying after class, letting them call you on telephone during the week will all strengthen your ministry to the student who is field-sensitive.
10. Give frequent feedback. Field-sensitive students benefit from frequent feedback and this feedback improves learning. Expression of approval and confidence in his/her ability will be helpful to this student.
11. Make use of an overhead projector. Most field-sensitive students perceive meaning through sight and are often more visual than auditory. When a new concept is being introduced, the projector will be of benefit in getting across the material.
12. Make use of demonstrations. The field-sensitive student likes a teacher who encourages learning through modeling. This student will learn from demonstrations.
13. Make use of filmstrips, slides and/or videos. The visual characteristic of many field-sensitive students enables them to learn from these visuals.
14. Use frequent illustrations to reinforce concepts and relate the illustrations to the experience of the students. The use of illustrations is very important for the field-sensitive students.
15. Enact simulations and use role-playing experiences. This is often applied to children and young people, but the adult class can also benefit from this type of experience.
16. Allow frequent discussions. As we speak in many church school classes, we are amazed to see that in many classes there has obviously been little or no discussion; for when we try to get people to contribute, they just sit in silence. These need to be guided discussions. Discussion questions, perhaps first in small groups, can greatly increase the learning.
17. Especially for your adult classes, provide help in taking notes. Many pastors today are doing this in church bulletin, giving the outline of the sermon with space to

write comments.

Although some of the above methods would be helpful for all people, it must be remembered that that one's learning style makes certain methods beneficial to her/him, while the same methods may not be appropriate for another style. The methods we have suggested here are recommended for field-sensitive learners.

Dr. Earle A. Bowen, Jr.
and
Dr. Dorothy N. Bowen

APPENDIX B

LESSON PLAN

USING GLOBAL TEACHING STRATEGIES

Most teachers tend to find it easier or more natural to teach either according to their own predominant learning style or according to whatever teacher training they have received. When trying to match one's teaching style to the learning style of the students, it's often useful to plan and even rehearse each lesson in order to avoid reverting to the strategies best suited to one's own preferred style.

The following lesson plan outlines the five components of a global approach lesson: (1) introduction, (2) direct instruction, (3) teacher-direct application, (4) independent practice, and (5) independent application.

1. Introduction is a very brief overview, designed to give the students a clear understanding of the content and purpose of the lesson.

- a. The teacher contextualizes the lesson by relating it to the previous lesson or class period, and relates it to the course contents.
- b. The teacher overviews the lesson by stating the general topic, concept, or procedure and makes the main points very obvious at the beginning of the lesson.
- c. The teacher gives a brief example of the topic, concept, or procedure and underscores relevant details only.
- d. The teacher explains the relevance of the lesson, its usefulness and its benefits to the students as he provides performance objectives of what he expects of his students.
- e. The teacher gives a procedural orientation by outlining the main divisions of the lesson, order of class activities, and rules or other requirements for the lesson.

Contextualization of the lesson is necessary for each class period. Other parts of the introduction might be condensed into one sentence or omitted, depending on the time lapsed between classes.

2. Direct Instruction. The teacher is responsible for knowledge acquisition at this stage of the lesson.

- a. For a new concept, the teacher begins with wholes and breaks them down, he defines, explains, gives examples and invites and answers questions for clarification.
- b. For a new procedure. the teacher explains, describes the new procedure, makes specific the steps in the new procedure, models the new procedure, verbalizing details of cognitive strategies used and invites and answers questions in a non-threatening way.

In a global teaching style, students are given the new information by the teacher. The teacher does not try to draw the information out of the students by questions or materials, not hypothetical language data or nonsense examples.

- 3. Teacher-directed application. The teacher and the students share the responsibility for knowledge acquisition.
 - a. For a new concept, the teacher initiates and leads group discussion, asks questions based on previous direct instruction, and students are asked to find other examples, relate new concept to those previously acquired, or compare or contrast examples.
 - b. For a new procedure, the teacher initiates overall activity and individual steps, he serves for both guidance and feedback, and the students are asked to apply the procedure learned in the direct instruction.

In a global approach questions are directed to the class as a whole, not to individuals. The teacher asks for volunteers to give examples, answers, and explanations.

- 4. Independent practice. The students, either as individuals or as a group, are responsible for knowledge acquisition.
 - a. For a new concept, students are given exercises with material which is new but very similar to that used in the direct instruction, and they are asked to provide and/or describe new examples in their own words.
 - b. For a new procedure, students are given exercises using data used in the direct instruction or application but which is very similar to the data used in the direct instruction. Students apply the new procedure in as independent a manner as

appropriate and the teacher is available to help if requested.

This independent practice should not require any leaps of knowledge on the part of the students. It is very much a practice of what has just been learnt, helping the students assimilate the recently learnt concept or procedure.

5. Independent application. The students, either as individuals or as a group, are responsible to apply their new knowledge to new, unfamiliar material.
 - a. For a new concept, students are given exercises with material which is different from that used previously and they are asked to provide and or describe new and different examples, using their own language.
 - b. For a new procedure, students are given exercises using new data which is considerably different from that used previously, requiring thoughtful application of a well understood concept or procedure. Students can be asked for both answer and explanations of how they arrived at conclusions. Students apply the new procedure independently, and individually if possible and the teacher is available to help as a last resort.

Some global students learn analytical skills much more readily working in small groups; others prefer to work alone. Within the teaching-learning process, of course, there must be periodic independent, individual assignments for purposes of evaluation.

(Guild, P. B., & S. Garger. 1985. Marching to different drummers)

APPENDIX C

TEACHING STYLES INVENTORY I

Name of the college _____ Teacher # _____

Male _____ Female _____ Home country _____

Period of teaching experience _____ Years.

With assurance I know the learning styles of each student in my class. Tick the appropriate answer: Yes _____ Some _____ No _____

INSTRUCTIONS

1. Read each statement carefully.
2. After reading the statement decide if it pertains to you:
R= Rarely, S= Sometimes, or U= Usually.
3. Tick () your answer on the left side of each statement in the appropriate place.
4. Answer all statements, one answer per statement.

DURING MY TIME IN COLLEGE, THE TEACHER WHO MOST IMPRESSED MY LIFE USED THE FOLLOWING TEACHING STYLES/STRATEGIES:

! R ! S ! U !

! ! ! ! 01. The teacher outlined the entire course and provided the course outline to each student.

! ! ! ! 02. The teacher used the course outline as his teaching guide.

! ! ! ! 03. The teacher made students aware of any changes he made in the course syllabus.

! ! ! ! 04. The teacher provided and explained performance objectives.

! ! ! ! 05. The teacher introduced the lesson by giving the outline of the lesson for that day.

! ! ! ! 06. The teacher gave collateral/secondary readings as part of the course.

! ! ! ! 07. The teacher encouraged students to learn together.

! ! ! ! 08. The teacher gave exams from the material covered in class.

- ! ! ! ! 09. The teacher set a time when students who had
! ! ! ! academic problems could see him.
- ! ! ! ! 10. The teacher gave frequent feedback concerning
! ! ! ! the students' performance.
- ! ! ! ! 11. The teacher repeated the sentence whenever he was
! ! ! ! asked to do so.
- ! ! ! ! 12. The teacher dictated notes as students wrote.
- ! ! ! ! 13. The teacher used an overhead projector for
! ! ! ! teaching.
- ! ! ! ! 14. The teacher used visual aids to clarify the
! ! ! ! subject.
- ! ! ! ! 16. The teacher encouraged students to discuss issues
! ! ! ! from the subject.
- ! ! ! ! 17. The teacher used multiple choice questions to test
! ! ! ! students.
- ! ! ! ! 18. The teacher discussed the exam with individual
! ! ! ! students who had not performed well.
- ! ! ! ! 19. The teacher motivated students to model him.
- ! ! ! ! 20. The teacher came to class well prepared.
- ! ! ! ! 21. The teacher used the course outline to inform
! ! ! ! students about what they would cover in the
! ! ! ! subject during the whole term.
- ! ! ! ! 22. The teacher followed the outline in an orderly
! ! ! ! fashion.
- ! ! ! ! 23. The teacher informed students whenever there was
! ! ! ! change.
- ! ! ! ! 24. The teacher made the course objective clear at the
! ! ! ! beginning of the course.
- ! ! ! ! 25. The teacher gave a general overview of each new
! ! ! ! topic before getting into all its details.
- ! ! ! ! 26. The teacher gave assigned readings related to the
! ! ! ! subject.
- ! ! ! ! 27. The teacher organized students into small groups
! ! ! ! so that they could study together.

- ! ! ! ! 28. The teacher set the test directly from the course objectives.
- ! ! ! ! 29. The teacher had time for students after class.
- ! ! ! ! 30. The teacher gave many tests during the term.
- ! ! ! ! 31. The teacher made sure students were taking good notes.
- ! ! ! ! 32. The teacher used lectures in his teaching.
- ! ! ! ! 33. The teacher used videos and films in his teaching.
- ! ! ! ! 34. The teacher helped students to understand the lesson through explanation.
- ! ! ! ! 35. The teacher provoked students to ask questions.
- ! ! ! ! 36. The teacher allowed discussions in class.
- ! ! ! ! 37. The teacher gave different types of questions in exams.
- ! ! ! ! 38. The teacher was interested in students academic problems.
- ! ! ! ! 39. The teacher was a model to students.
- ! ! ! ! 40. The teacher organized his lessons before coming to class.

APPENDIX D

TEACHING STYLES INVENTORY II

Name of the college _____ Teacher # _____

Student Evaluating: Second Year _____ Third Year _____ Fourth Year _____

INSTRUCTIONS

1. Read instructions on the tally sheet.
2. Read each statement carefully on the inventory.
3. After reading the statement decide if it pertains to you
R= Rarely, S= Sometimes, or U= Usually.
4. Tick () your answer on the tally sheet in the appropriate place.

THE TEACHER I AM EVALUATING USES THE FOLLOWIING TEACHING STYLES/ STRATEGIES:

01. The teacher outlines the entire course and provides the course outline to each student.
02. The teacher uses the course outline as his teaching guide.
03. The teacher makes the students aware of any changes he makes in the course syllabus.
04. The teacher provides and explains performance objectives.
05. The teacher introduces the lesson by giving the summary of the lesson for that day.
06. The teacher gives collateral/secondary readings as part of the course.
07. The teacher encourages students to learn together.
08. The teacher gives exams from the material covered in class.
09. The teacher sets a time when students who have academic problems can see him.
10. The teacher gives frequent feedback concerning students who have academic problems.
11. The teacher repeats the sentence whenever he is asked to do so.
12. The teacher dictates notes as students write.
13. The teacher uses an overhead projector in teaching.
14. The teacher uses teaching aids to clarify the the points he makes.
15. The teacher answers questions asked by students.
16. The teacher encourages students to discuss issues from the subject.
17. The teacher uses multiple choice questions to test students.
18. The teacher discusses the exam with individual students who have not performed well.
19. The teacher motivates students to model after him.
20. The teacher comes to class well prepared.
21. The teacher uses the course outline to inform students about what they will cover in the subject during the whole term.

22. The teacher follows the outline in an orderly fashion as he teaches.
23. The teacher informs students whenever there is change in the course syllabus.
24. The teacher makes the course objectives clear at the beginning of the course.
25. The teacher gives a general overview of a new topic before getting into all its details.
26. The teacher gives assigned readings related to the subject.
27. The teacher organizes students into small groups so that they can study together.
28. The teacher sets the test directly from the course objectives.
29. The teacher has time for students after class.
30. The teacher gives many tests during the term.
31. The teacher makes sure students are taking good notes.
32. The teacher uses lectures in his teaching.
33. The teacher uses videos and films in his teaching.
34. The teacher helps students to understand the lesson through proper explanation.
35. The teacher provokes students to ask questions.
36. The teacher allows discussions in class.
37. The teacher gives different types of questions in exams.
38. The teacher is interested in students' academic problems.
39. The teacher is a model to students.
40. The teacher organizes his lessons before coming to class.

Teaching Strategies Inventory II Tally Sheet

Instructions: Read each statement. Decide if the teacher in column A, B, C, etc. uses teaching style "rarely," "sometimes," or "usually." Tick in column A the appropriate rate to teacher A, tick in column B appropriate rate to teacher B until you finish all the columns. Then, read the following statement and tick appropriate rates. Make sure you tick in the appropriate column on the appropriate line.

Name of the College: _____

	Teacher A			Teacher B			Teacher C			Teacher D			Teacher E			Teacher F			Teacher G			Teacher H								
	R	S	U	R	S	U	R	S	U	R	S	U	R	S	U	R	S	U	R	S	U	R	S	U	R	S	U			
1																														
2																														
3																														
4																														
5																														
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7																														
8																														
9																														
10																														
11																														
12																														
13																														
14																														
15																														

Deogratias Nshimiyimana
NEGST
P.O.Box 24686
Nairobi, Kenya

February 4, 1997

Dr. Dorothy Bowen
NEGST
P.O.Box 24686
Nairobi, Kenya

Dear Dr. Dorothy Bowen,

RE: VALIDATION OF INSTRUMENTS

Greetings in the name of our Lord and Savior Jesus Christ.

The writer is conducting research in Learning and Teaching Styles. The major goal of the research is:

1. To identify learning styles of teachers in theological colleges.
2. To identify teaching styles which were preferred by theological colleges teachers during their college studies.
3. To identify teaching styles used by teachers in theological colleges .
4. To explore whether teachers teach according to their predominant learning styles or according to the teaching styles of the teachers who most impressed them during their college studies.

To be able to gather the data three instruments are needed. The Group Embedded Figures Test (GEFT) to cater for #1, Teaching Styles/Strategies Inventory I (TSI) to cater for #2, and Teaching Styles/Strategies Inventory II (TSI) to cater for #3.

Attached are the two sets of inventory which you are kindly requested to assist to validate. The necessary information is provided on the page annexed to each inventory.

Your assistance and contribution to this study, will be highly appreciated.

Sincerely Yours,

Deogratias Nshimiyimana

THE RESEARCHER

Deogratias Nshimiyimana
NEGST
P.O.Box 24686
Nairobi, Kenya

February 4, 1997

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Sincerely Yours,

Deogratias Nshimiyimana

THE RESEARCHER

Deogratias Nshimiyimana
NEGST
P.O.Box 24686
Nairobi, Kenya

February 4, 1997

Dr. Elie Buconyori
CLMC
P.O.Box 24345
Nairobi, Kenya

Dear Dr. Elie,

RE: VALIDATION OF INSTRUMENTS

Greetings in the name of our Lord and Savior Jesus Christ.

The writer is conducting research in Learning and Teaching Styles. The major goal of the research is:

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Your assistance and contribution to this study will be highly appreciated.

Sincerely Yours,

Deogratias Nshimiyimana

THE RESEARCHER

TEACHING STRATEGIES INVENTORY I

Introduction:

This inventory is designed to identify teaching styles preferred by theological college teachers during their college studies. By comparing the data that will be gathered using this inventory with other data , we will be able to answer the research questions as stipulated in the proposal.

The Content Validity:

On the line provided to the left of each item, kindly indicate the quality of each item according to its value in identifying teaching styles as expressed above. Use the abbreviations: V.G for very good; G. for good; A. for average and P. for poor.

This inventory will be testing twenty areas of teaching Styles/strategies. This means that item #1, 21, 41, and 61 will be testing one area; #5, 25, 45, and 65 the same area. The pattern is the same for the rest of the items.

Kindly, give your assessment to this inventory. Your suggestions and comments will be taken into consideration.

TEACHING STRATEGIES INVENTORY II

Introduction:

This inventory is designed to identify teaching styles used by teachers in theological colleges. By comparing the data that will be gathered using this inventory with other data, we will be able to answer the research questions as stipulated in the proposal.

The Content Validity:

On the line provided to the left of each item, kindly indicate the quality of each item according to its value in identifying teaching styles as expressed above. Use the abbreviations: V.G for very good; G. for good; A. for average and P. for poor.

This inventory will be testing twenty areas of teaching Styles/strategies. This means that item #1, 21, 41, and 61 will be testing one area; #5, 25, 45, and 65 the same area. The pattern is the same for the rest of the items.

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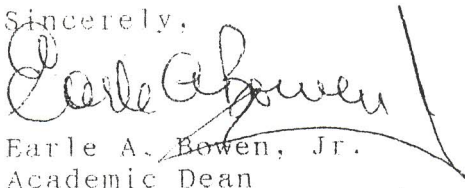
5th February, 1997

TO WHOM IT MAY CONCERN

The bearer of this letter, Deogratias Nshimiyimana, is a student at Nairobi Evangelical Graduate School of Theology and is doing research towards the completion of the Master of Arts in Christian Education programme. "*Learning and Teaching Styles in Selected Theological Colleges in Kenya*".

The school will very much appreciate whatever assistance you can give to his research.

Sincerely,



Earle A. Bowen, Jr.
Academic Dean

EB/mo.

CURRICULUM VITAE

Personal Data

1. Name: Nshimiyimana Déogratias
2. Date of Birth: 8th August 1960
3. Nationality: Burundian
4. Faith: Burundi Free Methodist Church
5. Marital Status: Married 9th June 1983
Spouse : Nzeyimana Léa 1964
Children: Kanyamuneza Donagine 1984
Irakunda Aline 1987
Nshimiyimana Jean-Marie 1990
Nzeyimana Béatrice 1995

Academic Qualifications

1. Diploma in Theology (Institut de Théologie Evangélique de Mweya), 1988.
2. Bachelor of Arts in Theology (Kenya Highlands Bible College), 1994.
3. Certificate in Music. David Carr Glover Church Musician Level 3 (Kenya Highlands Bible College), 1994.
4. Masters of Arts in Christian Education (Candidate) (Nairobi Evangelical Graduate School of Theology) 1997.

Work Experience

He has served in various educational ministries of the Church since 1978.

1. Literacy Programme Director
2. Theological Education by Extension Coordinator
3. Sunday School Director
4. Vacation Bible School Director
5. Church Music Director
6. Christian Education Director

He was ordained pastor on 7th August 1994 by the Burundi Free Methodist Church.