

## ABSTRACT

### EDUCATIONAL LEADERSHIP

MUMUNEY-TILGHMAN, S.A. B.A. MORRIS BROWN COLLEGE, 1991

M.S. CLARK ATLANTA UNIVERSITY, 1995

#### THE EFFECTIVENESS OF THE IMPLEMENTATION PROCESS OF

#### THE DISTANCE LEARNING PROGRAM AT TWO HBCUs:

#### A COMPARATIVE STUDY

Advisor: Dr. Trevor Turner

Dissertation dated May 2003

This study investigated the effectiveness of the implementation process of the distance learning program at two historically black universities. The qualitative comparative study examined different factors such as decision makers, funding (infrastructure, training, personnel, program sustainability), instructional model, and instructional development that were involved in the implementation process of a distance learning program at one private and one public historically black university.

The research design selected for this study was a qualitative, descriptive design to investigate the factors involved in the implementation process of two historically black colleges and universities. In this study, factors such as decision makers, funding, instructional model, and instructional development were examined. The data were gathered through interview process and questionnaires. Both directors of the distance learning program were interviewed; questionnaires were given to the distance learning

instructors at both institutions, and questionnaires were given to the distance learners at both institutions.

The conclusions drawn from the findings suggest that even though all the factors were present, some factors were implemented less effectively. Some factors such as organizational structure, assessment, and evaluation process were implemented less effectively. Funding did not play a major role in the differences in the implementation process of the distance learning program between the public and private HBCUs.



THE EFFECTIVENESS OF THE IMPLEMENTATION PROCESS OF  
DISTANCE LEARNING PROGRAM AT TWO HBCUs:  
A COMPARATIVE STUDY

A DISSERTATION  
SUBMITTED TO THE FACULTY OF CLARK ATLANTA UNIVERSITY  
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR  
THE DEGREE OF DOCTOR OF EDUCATION

BY  
SHAKIRAT A. MUMUNEY-TILGHMAN

DEPARTMENT OF EDUCATIONAL LEADERSHIP

ATLANTA, GEORGIA

MAY 2003

*R viii*

*T 149*

© 2003

SHAKIRAT A. MUMUNEY-TILGHMAN

All Rights Reserved

## ACKNOWLEDGMENTS

To God be the glory for all He has done for me. He bestowed on me good health, the determination and courage to finish this course of study. It was through His power and strength that I was able to finish this course of study. I extend my appreciation to my dearly departed parents, Mr. and Mrs. Talihat Abayomi Mumuney. May your souls rest in peace. Whatever I am today or become tomorrow, I owe it all to both of you.

My sincere thanks and appreciation goes to Dr. Moses Norman, Dr. Trevor Turner, and Dr. Robert Dixon. I am immensely grateful for all your teaching, dedication, encouragement, patience, and understanding.

My children, Alex and Justin Tilghman, you are the best thing that has ever happened to me. I thank you for understanding when mommy cannot make it home on time to help with homework or say good night. I love you very much with all my heart and soul. I thank my adopted son, Joseph Benford, for lending a hand when I needed it the most. I love you. Sincere appreciation is extended to my husband, Stanley Tilghman and the rest of my family. I extend my sincere appreciation to my friend and soror, Shirley Dawson. I thank you for traveling out of state with me to do the interviews for this research and for your constant word of encouragement and prayers. I love you dearly.

I extend my thanks to my uncle, Dr. Hakeem Oseni, for all the long distance calls from Nigeria just to check on the progress of my research and for being there for me. I love you very much. Finally, many thanks to the faculty, Ms. Betty Cooke and the staff of the Educational Leadership Department. It was indeed a great honor to have come across each one of you. May God continue to shine His blessings upon you.

## TABLE OF CONTENTS

	PAGE
ACKNOWLEDGMENTS.....	ii
LIST OF FIGURES .....	vii
LIST OF TABLES .....	viii
CHAPTER	PAGE
I. INTRODUCTION.....	1
Purpose of the Study.....	3
Background of the Problem .....	4
Statement of the Problem .....	8
Significance of the Study.....	9
Research Questions .....	9
Summary .....	11
II. REVIEW OF THE LITERATURE .....	13
Introduction.....	13
Historical Perspectives of Distance Learning .....	13
Instructional Technology Delivery Methods .....	19
The Process of Developing and Implementing Distance Learning and Instructional Technology Program .....	25
Historically Black Colleges and Universities and Technology.....	31
Summary.....	35
III. THEORETICAL FRAMEWORK.....	36
Policy Analysis Theory.....	36
Distance Learning Environment Theory.....	39

	PAGE
Designing Distance Learning Courses .....	40
Distance Learning Implementation Process Theory .....	41
Presentation and Definition of Variables .....	42
Definition of Terms.....	46
Limitations of the Study.....	53
Summary.....	54
<b>IV. RESEARCH METHODOLOGY.....</b>	<b>55</b>
Introduction.....	55
Design of the Study.....	55
Selection of the Population.....	56
Working with Human Subjects.....	58
Data Collection.....	59
Data Analysis.....	60
Data Trustworthiness/Credibility.....	65
Summary.....	65
<b>V. ANALYSIS OF THE DATA.....</b>	<b>67</b>
Mission.....	68
Decision Makers.....	70
Organizational Structure.....	71
Policy.....	73
Funding.....	75
Instructional Technology Model.....	78

	PAGE
Instructional Development, Assessment and Evaluation.....	81
Faculty Workload.....	90
Compensation.....	91
Faculty Development.....	91
Support.....	92
Assessment.....	93
Instructor Availability and Support .....	97
Technical Support.....	99
Administrative Support.....	99
Summary.....	102
VI. FINDINGS, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS.....	103
Finding.....	106
Conclusions.....	113
Implications.....	118
Recommendations .....	120
Summary.....	123
APPENDIX	
A. Researcher’s Letter Requesting to Conduct Resesrch.....	125
B. Director’s Interview Guide.....	126
C. Distance Instructor’s Questionnaie.....	131

	PAGE
APPENDIX	
D. Distance Learner's Questionnaire.....	136
REFERENCES.....	140

LIST OF FIGURES

	PAGE
1. Common Synchronous and Asynchronous Technologies.....	20
2. Distance Learning Technologies .....	23
3. The Instructional Development Process.....	28
4. Implementation Process.....	29
5. HBCUs Offering Degree Programs Through Distance Learning (Public/Private & Urban/Rural.....)	32
6. HBCUs Offering Degree Programs Through Distance Learning (Enrollment).....	33
7. Illustration of Independent and Dependent Variables.....	46



## LIST OF TABLES

	PAGE
1. Distance Learning Technology Trends.....	22
2. African-American Participation in Distance Learning for ..... Selected Years	34
3. Policy Analysis Framework for Distance Education.....	38
4. Research Sample for Public Institution.....	58
5. Research Sample for Private Institution.....	58
6. Frameworks for Data Analysis.....	63
7. Side-By-Side Comparison of the Process for the Effectiveness of the Implementation Process of Distance Learning at the Public and Private HBCUs.....	88
8. Percentages of Responses to Research Questions Regarding Instructional Development, Instructional Technology Models, Faculty Development and Support, Compensation, and Assessment.....	95
9. Percentages of Responses to Research Questions Regarding Assessment and Technical Support.....	101

## CHAPTER I

### INTRODUCTION

Long before the civil rights movement launched in the 1960s, historically black colleges and universities were established to offer higher education to African Americans living in segregated areas of the country. From the time of legalized black education, the traditional role of HBCUs in the African-American community has been a catalyst targeted on academic achievement for its students. These institutions have a concentration on creating and maintaining an academic environment in which all students, even those who may be under-prepared by conventional measures, can succeed academically.

These institutions were founded with the purpose of educating disadvantaged blacks during the post-Civil War era, and to this day retain missions of fostering the intellectual and social development of their students (Wagener, 1998). Today, there are 118 HBCUs that continue to honor a legacy of quality education, diversity, and opportunity. They are located in 24 states, the District of Columbia, and the Virgin Islands. HBCUs include public and private schools, two-and four-year schools, and graduate and professional schools. They offer quality education in a nurturing environment. These colleges and universities take an exceptional interest in their students' growth, development and success.

Historically black colleges and universities come in many shapes and sizes. They are found in big cities, small towns, and rural areas. HBCUs include liberal arts schools, agricultural and research institutions, and scientific and technological centers. Together they enroll more than 370,000 students, and graduate about one-third of all African-American students each year (US Department of Commerce, 2000), awarding undergraduate, graduate, and professional degrees.

Today, HBCUs continue the legacy of quality education, diversity, and opportunity by reaching out to students beyond the classroom. A small number have begun to offer online classes through distance learning and instructional programs. Over the past several years, there has been rapid growth in the number of institutions, HBCUs, and other higher education institutions providing courses and degree programs in various modes of distance education. With the increased popularity of the Internet, computer technologies are receiving more and more attention as a means of delivery for distance learning.

Distance learning has evolved in large part as a response to specific demands for improving information access equity, with particular attention paid to the improvement of instructional resource proximity via technology. Distance learning refers to the transmission of educational or instructional programming to geographically dispersed individuals and groups. More specifically, Keegan (1986) suggested that distance learning encompasses educational or instructional programming which exhibits the following attributes:

1. There is limited regular contact between instructor and student (s).

2. The development and delivery of instruction, as well as student support services, are administered by a centralized educational agency.
3. Various media (print, audio, video or computer) are used to transmit course content.
4. There is some provision for two-way communication in the educational/instructional process.
5. People tend to receive instruction individually rather than in a group.

Educational theorist Michael Moore (1972) also defined distance learning as:

The family of instructional methods in which the teaching behaviors are executed apart from the learning behaviors... so that communication between the learner and the teacher must be facilitated by print, electronic, mechanical, or other devices. (Moore, p.76)

There are many synonyms used for distance learning, such as *distance education*, *distributed learning*, or *remote education*. For the purpose of this study, distance learning will be defined by the following criteria:

1. The teacher and students are separated by distance. This distance could mean different classrooms in the same school or different locations thousands of miles apart.
2. The instruction is delivered via print, voice, video, or computer technologies.
3. The communication is interactive in that the teacher receives some feedback from the student. The feedback may be immediate or delayed.

#### Purpose of the Study

The purpose of the study is to investigate the effectiveness of the process for implementing distance learning and instructional technology program in two black

universities. This comparative case study will examine the development process including challenges, barriers, and enablers experienced by these two black historically universities.

### Background of the Problem

Distance learning is one of the most rapidly growing vehicles for the delivering of education and training in the world today. The potential impact of distance learning on all education delivery systems, from the primary to the tertiary level, has been greatly accentuated through new developments in information and communication technologies, which increasingly free learners from constraints of time and space (Williams et al., 1999). The distance learning environment taps into the innovation of technology to offer a flexible and engaging adult learning opportunity. Students engaged in distance learning are able to learn anytime, anywhere, in a collaborative learning community. Online learning promotes the globalization of adult learning by opening the boundaries of learning (Neo & Eng, 2001).

Distance learning is by no means new. In fact it can be traced as far back as the first century and then to the mid-1800s with the advent of correspondence study in higher education. Distance education in the United States began about a century ago with correspondence study. In 1938, after nearly half a century of practice, a group of mostly American and Canadian correspondence educators, most but not all from university extension divisions, met in Vancouver, Canada, to form an organization which they called the International Council for Correspondence Education. Not until 1972 did the

International Council for Correspondence Education (ICCE) coin the term “distance education” to describe the family of educational practices that had sprung up through the years around correspondence education (Moore, 1990).

During the past two decades, the world has seen considerable growth in education and training, but the world still suffers from intolerable inequalities both at the international level and within nations. Many historically black colleges and universities are struggling with limited access to educational technologies for young people and, at the same time, are having to address basic needs of the older generation. The core mission of distance education, since its invention in the nineteenth century, has been to open access to those who were denied opportunity in the conventional systems, especially in higher education (Moore, 1972).

In 1997, at the request of Vice President Al Gore, the Commerce Department's National Telecommunications and Information Administration (NTIA) analyzed telephone and computer penetration rates across the United States to determine who was and who was not yet connected. The highlight from the analysis of the 1997 data was the term “digital divide.” The term "digital divide" focused on the differences between minorities and mainstream with regard to information technology (IT) infrastructures, i.e., differences in their ownership and/or access to computer hardware, software applications, local networks, and the Internet. The so-called “digital divide” is better understood in terms of specific deficiencies in the application of specific technologies. For higher education, digital divide refers to the disparity or gaps in access to, and use of technology. Other higher education institutions (HEIs) have already moved to higher

technology plateaus such as Internet2, where participation among HBCUs is disproportionate (NTIA, 1997).

A recent study conducted by Tennessee State University and AOL Time Warner Foundation entitled *Alliance To Help Bridge the Digital Divide Between Historically Black Colleges and Universities and Other Higher Education Institutions in this Country* in 2000, concluded that the rate of closure of the digital divide on HBCU campuses must accelerate. The study also concluded that the acceleration could occur if and only if the merger of technology usage, educational enhancement for students, and increased productivity are melded into immutable institutional goals.

The study suggests that HBCUs must link technology accessibility and use with enhanced learning outcomes for students by fusing technology seamlessly into all learning environments, including distance learning. HBCUs, secondary to the study, must also place a high priority on the effective use of technology (instructional technology) to increase productivity and to lower or offset educational costs. Otherwise, an ever-increasing financial burden will be placed on already under-financed students. To hasten the pace of closure of the digital divide on HBCU campuses, technology must be envisioned as an educational enhancement medium, an operational tool for productivity enhancement, and an asset that pays for itself.

Within a context of rapid technological change and shifting market conditions, the American higher education system is challenged with providing increased educational opportunities without increased budgets, keeping education activities moving forward, and supplementing research opportunities or expanding customary classroom offerings

with distance learning opportunities. This is even more so for historically black colleges and universities, especially given the competitions that they are facing with other colleges and universities. Many higher educational institutions, including black colleges and universities, are answering these challenges by developing distance learning and instructional technology programs. Barry Willis (1993) stated that

Distance education at its most basic level takes place when a teacher and student(s) are separated by physical distance, and technology (i.e., voice, video, data, and print), often in concert with face-to-face communication, is used to bridge that instructional gap. (Willis, p.25)

Instructional technology provides a process and framework for systematically planning, developing, and adapting instruction based on identifiable learner needs and content requirements (Dick & Carey, 1990). This process is essential in distance learning, where the instructor and students may share limited common background and typically have minimal face-to-face contact. Because of the diversity of technologies now available, distance educators can now ensure several different modes of learning, catering to the cognitive styles and approaches to study of a diverse range of students.

The distance learning environment is never static, but reflects the dynamics of the learning communities. The dialog of the online classroom stimulates the learning environment in which students interact with each other to expand their ideas via electronic forums and communication tools such as learning group discussion, bulletin boards, Internet relay chat and newsgroup discussions, E-mails, etc. (Atwong et al, 1996; Natesan & Natesan, 1996; Seibert 1996; Siegel, 1996). This model of distance learning assumes that learning is a social activity, and learners tap the learning network to verbalize their thoughts. The technological advantage of distance learning (online



classrooms) promotes active group learning through computer-mediated dialogs (Cordell, 1996).

Distance learning and instructional technology programs provide students greater cognitive development; critical thinking skills to challenge assumptions; exploration to further professional practice; empowerment of professionals to heighten personal responsibility toward creating social change; and discovering new knowledge. A wide range of instructional technological options is available to the distance educator.

Distance learning, using instructional technology, enables the delivery of courses and learning materials to students studying at locations distant to the parent institution.

Therefore, learners can access education and learning opportunities at a time, place and pace to suit their individual lifestyles, learning preferences and personal development plans (Verduin & Clark, 1991).

### Statement of the Problem

This study focused on issues pertaining to the process used by two HBCUs in the development and implementation of distance learning and instructional technology in two historically black universities. It is estimated that the equivalent of approximately thirty credit hours will be required every seven years for a person to remain gainfully employed in the Information Age (Dolence & Norris, 1995). Many people cannot afford (time and money) to take off from work every seven years to enroll in a traditional school; thus, many companies are encouraging their employees to go to school through distance learning. The market is demanding it, and other higher education institutions (HEIs) are

providing it in more convenient, flexible, effective, and affordable ways through distance learning and instructional technology. This poses a grave threat to HBCUs if they do not get into this market.

It is imperative that HBCUs keep pace with technology because for some students, historically black colleges and universities are likely to be their last exposure to technology before entering today's technology-laden and unforgiving workplace. The qualitative nature of the study is primarily concerned with in detailing the process the institutions undertook in developing and implementing their distance learning and instructional technology program.

#### Significance of the Study

This study should yield information that could enhance the process for the development and implementation of distance learning and instructional program in HBCUs. This process could include: identifying and implementing effective Instructional technology model(s); putting effective training process in training instructors in the instructional technology development process; targeting audiences (students) for distance learning and instructional technology programs; and helping other historically black colleges and universities in technology strategic planning.

#### Research Questions

The following research questions were developed to guide this study:

1. What motivated the university to embark on a distance education program?

2. Who was responsible for developing and implementing the vision of the program?
3. What is the organizational structure in place to manage the program, how was it developed?
4. How were policies developed to guide the program?
5. Who is responsible for making decisions on (a) the operation of the program and (b) the direction of the program?
6. What are the goals and objectives that drive the operation of the program?
7. Is the program part of the university mission and goal?
8. What strategic plan is in place for the distance learning program, and who developed it?
9. How is the program funded?
10. How will the program be sustained?
11. Is there a faculty development program designed to train and support the development of DL courses?
12. Were the faculties compensated, given release time or otherwise rewarded for developing distance learning courses?
13. What technologies are used to deliver the courses?
14. What infrastructure does your university have to support the chosen technologies?
15. Who makes the decision on the instructional technology model?
16. What assessment is in place to measure the success of the program?

17. How are customers' satisfaction data collected and treated?
18. What challenges have been experienced in the development of the distance learning courses?
19. What challenges have been experienced in the implementation of the distance learning courses?
20. What factors enabled the implementation of the program?

### Summary

The evolution of distance learning in the United States has generally paralleled the evolution of technology. In fact, over the past twenty-five years, it has been one of the few areas in education where technology has been central to the teaching task. distance learning and instructional technology programs provide students greater cognitive development; critical thinking skills to challenge assumptions; exploration to further professional practice; empowerment of professionals to heighten personal responsibility toward creating social change; and discovering new knowledge.

Within a context of rapid technological change and shifting market conditions, the higher education system is challenged with providing increased educational opportunities without increased budgets. Many higher educational institutions are answering this challenge by developing and implementing distance education and instructional technology program. This is even more so for historically black colleges and universities because of competition in the higher education arena.

This research examined the process two historically black universities undertook in developing and implementing distance learning and instructional technology programs. Specifically, the study examined the effectiveness of the program's development and implementation challenges, barriers, enablers, and overall responsiveness to the program.

CHAPTER II  
REVIEW OF RELATED LITERATURE

Introduction

This chapter presents selected literature pertinent to the core elements of this study. The literature review is divided into the following sections: (1) historical perspectives of distance learning; (2) instructional technology delivery methods; (3) the process of developing and implementing distance learning and instructional technology program; and (4) historically black colleges and universities and technology.

Historical Perspectives of Distance Learning

According to Borg and Gall (1983), the historical study of an educational idea or institution gives us a perspective that can do much to help understand our present educational system and this understanding in turn can help to establish a sound basis for further progress and improvement.

Distance learning takes place when a teacher and student(s) are separated by physical distance and technology; that is, voice, video, data and print, are used to bridge the instructional gap (Willis, 1994). Some define distance education as the use of print or electronic communications media to deliver instruction when teachers and learners are separated in place and/or time (Eastmond, 1995). However, others emphasize distance learning over education, defining it as “getting people—and often video images of people

into the same electronic space so they can help one another learn” (Filipczak, 1995, p. 35). There are many synonyms used for distance learning, such as distance education, distributed learning, or remote education.

Distance education is not new. In fact it can be traced as far back as the first century with the advent of correspondence study in higher education. Distance learning has been employed as an alternative to traditional, campus-based, classroom instruction for over a century. Dating back to the middle 1800s, instructional content and student responses were delivered by the postal system, commonly known as “correspondence courses.” Many citizens located in rural or remote geographical locations were able to access educational offerings that would have otherwise been unavailable.

Distance education in the United States began about a century ago with correspondence study. After nearly half a century of practice, a group of mostly American and Canadian correspondence educators, most but not all from university extension divisions, met in Vancouver, Canada, in 1938 to form an organization which they called the International Council for Correspondence Education (Watkins & Wright, 1991). Not until 1972 did the International Council for Correspondence Education (ICCE) coin the term “distance education” to describe the family of educational practices that had sprung up through the years around correspondence education (Moore, 1990).

The use of the term “distance education” was proposed after a search for a name that would describe not only correspondence instruction, but also a whole family of teaching-learning arrangements that had emerged in the 1960s. These arrangements had the common characteristics that the learner and teacher were normally separated

geographically and the communication that normally occurred by word of mouth in education was carried by correspondence, and increasingly by electronic media.

These media came to include not only radio and television broadcasting, but also audio and video recording, and teleconferencing through computer modems, telephone, satellite and microwave systems (Williams et al., 1999). Through the years, the distance learning technologies have evolved through several levels:

**Level 1:** 1880 – 1960 was considered *passive distance learning* era because there was no opportunity for the learner to interact with the instructor in *real time*. These environments consisted of printed material, audio- and videotapes, and radio transmissions. This type of distance learning is called *asynchronous* because learner and instructor (a) transmit messages “one way” and (b) receive responses after a lengthy delay (mailing, etc.).

**Level 2:** 1960 – 1990 was considered *passive to moderately active* era. It consisted of two-way audio teletraining, one-way video/two-way audio teletraining, computer-based training (CBT) disks, CD-ROMs, laser disks, personal computer (PC) teletraining via the bulletin board system (BBS), electronic mail, computer-mediated conferencing (CMC), and audiographics, and two-way interactive audio/video transmissions. Level 2 was also considered *synchronous* because each learner and instructor has the ability to (a) transmit messages simultaneously between sender and receiver (two-way) and to (b) receive immediate feedback and interaction among the distance sites.



**Level 3:** 1990 –21<sup>st</sup> century is considered *highly interactive era*. It consists of

hybrid environments that combine in one virtual classroom elements of all the distance learning technologies in the other two levels (level 1 and level 2), in addition to the capabilities of the Internet and the world wide web (www). In these environments, there is no one primary mode of delivery. Instead, the elements of the course being taught determine which technologies will be the “primary” or “instructional” form of delivery and which will be the “secondary” or “support” forms of delivery.

Over the years the format and structure of these early correspondence-based distance learning applications changed with the advent of new technologies that were capable of reducing turn-around time as well as increase interactivity for both students and teachers. From global perspectives, distance learning is growing because of its ability to support:

- ❖ Creation of a global education and information infrastructure.
- ❖ Sharing of human and intellectual resources.
- ❖ Increased availability of qualified teachers, physicians and trainers.
- ❖ Leveling and opening access to quality education across varying economic levels.
- ❖ Facilitation of “lifelong learning” among cultures, peoples, and ideas.

The common features of four predominant categories of distance education institutions and programs as described by Rumble (1986), are:

1. *Distance Learning Institution:* the educational activities are exclusively

- directed to distance education and distance learners. The institution is typically headed by a president. The institution may be considered the free-standing institution, (Matusak & Dowd 1985), or purpose-built institution (Rumble 1986) or the autonomous institution describe by Kaye (1981).
2. *Consortium*: the educational activities are directed exclusively to distance education and distance learners. Members or subunits of the consortia may be distance learning institutions, distance learning academic units, or distance learning programs. The consortium is often headed be a director or executive director. The consortium may be considered an organization. This category was identified by both Kaye (1981) and Rumble (1986).
  3. *Distance Learning Academic Unit*: a subunit of a college or university equal to all other academic disciplines organized within a traditional higher education governance framework. The distance learning academic unit often has faculty and administrative staff dedicated to educational activities of the distance learner or distance education, while the larger institution's educational activities encompass traditional classroom teaching/learning. The distance learning academic unit is often headed by a dean or vice president. The distance learning academic unit is part of a parent organization.
  4. *Distance Learning Program*: a subunit of a college or university often found within an academic or administrative unit whose educational activities are usually traditional classroom teaching/learning. The distance learning program usually does not have its own faculty, and provides mainly administrative

support services. The distance learning program is part of a parent organization.

Typically, today's distance learning program takes the values and objectives of traditional courses and uses technologies of the Information Age to address the needs of a broader and more complex educational market (Kelley, 1991). In a 1995 survey of current distance learning practices, it was found that 30 of the 32 colleges surveyed engaged in distance learning offerings serving 25,735 headcount students. More and more institutions are coming aboard and offering distance learning to their students. According to higher education statistics for the fall of 1998, 90 percent of all higher education institutions enrolling more than 10,000 students and 85 percent of schools with enrollments between 3,000 and 10,000 students offered distance education courses.

In 1999, U.S. Education Secretary Richard W. Riley (Distance Education Press Release, 1999) announced the selection of 15 postsecondary schools, systems and consortia that would have opportunity under a new program to enhance access to federal student aid for their distance education students pursuing college-level academic studies and training. He said the reason for this was because distance education has great potential to broaden education opportunities universally, but especially for working parents, students who live in rural areas, and students with disabilities that may limit their access to the traditional campus setting.

Distance learning, with a long history of serving isolated and remote learners, has now emerged as an effective, mainstream method of education and training that provides learning opportunities that are flexible and responsive to learners' needs. Distance

learning is now a key component of our new “learning society,” in which learners must take increased responsibility for control and direction of the learning process.

### Instructional Technology Delivery Methods

Facing a new century of learning means facing a time of change—a time of embracing new and emerging methods of learning. Technology is one area that has made a tremendous impact on higher education. It has enabled distance learning to become a very real, very frequently employed method of instruction for educational institutions and organizations worldwide. Over the years, the format and structure of the early correspondence-based distance learning applications changed with the advent of new technologies that were capable of reducing turn-around time as well as increase interactivity for both students and teachers. Distance learning can be roughly divided into synchronous or asynchronous delivery types. Synchronous means that the teacher and the student interact with each other in “real time.” Asynchronous delivery does not take place simultaneously. In this case, the teacher may deliver the instruction via video, computer, or other means, and the students respond at a later time (see figure 1).

	<b>Synchronous</b>	<b>Asynchronous</b>
<b>Video</b>	Videoconferencing	Videotape, Broadcast video
<b>Audio</b>	Audioconferencing	Audiotape, Radio
<b>Data</b>	Internet chat, Desktop videoconferencing	E-mail, CD-ROM

Figure 1: Common Synchronous and Asynchronous Technologies

The instructional media evolved from print, to instructional television, to current interactive technologies. The earliest form of distance learning took place through correspondence courses in Europe. This was the accepted norm until the middle of this century, when instructional radio and television became popular. Audio and video resources such as film, cassette tape, radio, and television slowly augmented or replaced the original correspondence course formats. According to Cambre (1991), in the late 1950s and early 1960s, television production was largely confined to studios and live broadcasts, in which master teachers conducted widely broadcast classes. At that time, the major drawback of broadcast television for instruction was the lack of a two-way communications channel between teacher and student.

By the late 1960s and early 1970s, significant changes in distance learning occurred due to development of new media technologies and delivery systems. These developments in technology and communications have brought about dramatic change in both the learning needs and the way learning opportunities are delivered in business,

labor, government, and academia. As increasingly sophisticated interactive communications technologies became available, distance educators adopted them. Two key insights emerged: (1) the digital revolution has profoundly altered traditional limitations of time and space, and (2) learning has permeated many sectors of the society.

Historically, the Articulated Instructional Media (AIM) project at the University of Wisconsin and the British Open University (BOU) proved to be critical in development of distance learning and instructional technology (Moore & Kearsley, 1996). The purpose of the AIM project was to create methods of integrating various communications technologies for delivery teaching, counseling, interactive study groups, and other resources to off-campus students by a team of specialists.

Although AIM represented a significant milestone in the history of distance learning, it suffered from three fatal flaws: no control over its faculty and curriculum, no control over its funds, and no control over academic credits and degrees for its students (Wedemeyer, 1981). Keeping in mind the problems of the AIM project, British educational policy-makers established the British Open University (BOU) in 1969 as a fully autonomous, degree-granting institution. As a result of the success, BOU became a model for the development of distance learning institutions around the world. According to Garrison and Shale (1990), the success of the BOU gave the rest of the world a practical model and an astounding demonstration of the success of the open education concept and the technology trends shows where distance learning programs are and where its heading (see Table 1).

Table 1 Distance Learning Technology Trends

<b>Institutional Characteristic</b>	<b>Total Number of Institutions</b>	<b>Offered distance learning In 1997-98</b>		<b>Planned to offer distance learning next three years</b>		<b>Did not offer in 1997-98 and did not plan to offer in the next three years</b>	
		<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>
All Institutions	5,010	1,680	34	990	20	2,340	47
<b>Institutional Type</b>							
Public 2-year	1,230	760	62	250	20	230	18
Private 2-year	1,120	60	5	220	20	840	75
Public 4-year	610	480	78	70	12	60	10
Private 4-year	2,050	390	19	450	22	1,210	59
<b>Size of Institution</b>							
Less than 3,000	3,800	730	19	840	22	2,230	59
3,000 to 9,999	820	610	75	110	14	90	12
10,000 or more	400	350	87	30	8	20	5

Source: U.S. Department of Education, 2000

The various technologies used in distance learning can be roughly divided into four categories: print, audio (voice), computer (data), and video and these ranges of technological options are available to the distance educator (see figure 2).

<p><b>Print</b></p> <p>Textbooks Study guides Workbooks Fax</p>	<p><b>Voice/Audio</b></p> <p>Telephone Voicemail Audioconferences Audiotape Radio</p>
<p><b>Computer</b></p> <p>E-mail Web-based courses Videoconferences CD-ROM Collaboration software</p>	<p><b>Video</b></p> <p>Videotape Satellite delivery Microwave Broadcast video Desktop Video</p>

Figure 2: Distance Learning Technologies



**Voice** - Instructional audio tools include the interactive technologies of telephone, audioconferencing, voicemail, and short-wave radio. Passive (i.e., one-way) audio tools include tapes and radio.



**Video** - Instructional video tools include still images such as slides, pre-produced moving images (e.g., film, videotape), and real-time moving images combined with audio conferencing (one-way or two-





**Data** - Computers send and receive information electronically. For this reason, the term "data" is used to describe this broad category of instructional tools.

Computer-assisted instruction (CAI) - uses the computer as a self-contained teaching machine to present individual lessons.

Computer-managed instruction (CMI) - uses the computer to organize instruction and track student records and progress. The instruction itself need not be delivered via a computer, although CAI is often combined with CMI.

Computer-mediated education (CME) - describes computer applications that facilitate the delivery of instruction. Examples include electronic mail, fax, real-time computer conferencing, and World-Wide Web applications.



**Print** – This is a foundational element of distance education programs and the basis from which all other delivery systems have evolved.

Various print formats are available including: textbooks, study guides, workbooks, course syllabi, and case studies.

Computer and telecommunications technologies, and combinations of both, have begun to revolutionize distance learning delivery systems throughout higher education in America. Currently, the most popular media are computer-based communications including electronic mail (E-mail), bulletin board systems (BBS), the Internet; telephone-

based audioconferencing, videoconferencing with one- or two-way video, two-way audio via broadcast, cable, telephone, fiber optics, satellite, microwave, and closed-circuit or low power television (Schamber 1988; Barron & Owig, 1993).

As a result of the development of new technologies, distance learning delivery systems had evolved by the middle 1990s to a state of relative reliability, viability, and ease of use in colleges and universities, at home, and in the workplace. According to Lever (1993), of the 618 community colleges across North America responding to a 1993 survey on distance learning practices, 313 indicated that they currently had a distance learning program in place, with video, print, audio, and telephone conferencing representing the top four types of delivery media.

### The Process of Developing and Implementing Distance Learning and Instructional Technology Program

Implementing a distance learning program requires time, people, funding, and careful planning. Pearson (1989) recognized the following factors as essential to successful program development:

- ❖ Need for the program.
- ❖ Faculty support, given incentives for motivation.
- ❖ Funds for capital costs, production, equipment, facilities, and ongoing operations.
- ❖ High quality educational content.
- ❖ Adequate staffing.
- ❖ Equal learning experiences and educational outcomes (i.e., credits, degree) for all

- ❖ students.
- ❖ Enthusiasm for and belief by, the institution in the overall program.
- ❖ Identification of a visible, spirited key leader/administrator initiating the program.
- ❖ Adequate facilities and staff at the receiving sites.
- ❖ Available equipment to deliver programming.
- ❖ Sufficient time for careful analysis of learner needs and demographics.
- ❖ Interactive components, length and frequency for instructional design.
- ❖ Administrators, teachers and staff knowledge of what distance education is and how to teach and use it effectively.

Steiner (1999) states, that in implementing an effective distance learning program, there must be a sound instructional design, appropriate technology applications, and support for teachers, students, and collaborative partner (p. 20). He also stated that a distance learning program must meet, and preferably enrich, the educational goals of the institution and the needs of the students, and to do so most effectively, it is important to establish the policy, procedures, and programming components prior to beginning the program. It is also important to build capacity and support within the institution from the onset by involving administrators and teachers in planning, implementation and evaluation.

Moore and Thompson (1990) states, that effective distance education programs begin with careful planning and a focused understanding of course requirements and students' needs (p. 55). They further states that appropriate technology could only be selected once these elements are understood in detail, and that the programs evolve

through the hard work and dedicated efforts of many individuals and organizations. Successful distance programs rely on the consistent and integrated efforts of students, faculty, facilitators, support staff, and administrators.

According to Garrison and Shale (1990), developing a distance course is not simply applying an interactive technology to traditional course offerings, but rather distance learning should capture what teachers do in the classroom in a way that can be understood by students studying at a distance. The instructional development provides a process and framework for systematically planning, developing, and adapting instruction based on identifiable learner needs and content requirements. This process is essential in distance education, where the instructor and students may share limited common background and typically have minimal face-to-face contact.

Willis (1999) states, “When designing systems and materials for distance delivery teachers must consider not only learning outcomes, but also content requirements and technical constraints. Also to be considered are the needs, characteristics, and individual differences of both the students and the teachers” (p. 45). He further states that the task of the distance educator is to obviate any problems as much as possible by mixing and matching techniques, creating and maintaining a stimulating environment, and offering opportunities for students to communicate with each other and with the teaching staff on a regular basis.

Dick and Carey (1990) and Gustafson & Powell (1991) show that instructional development models and processes follow the same basic stages of design, development, evaluation, and revision (see figure 3).

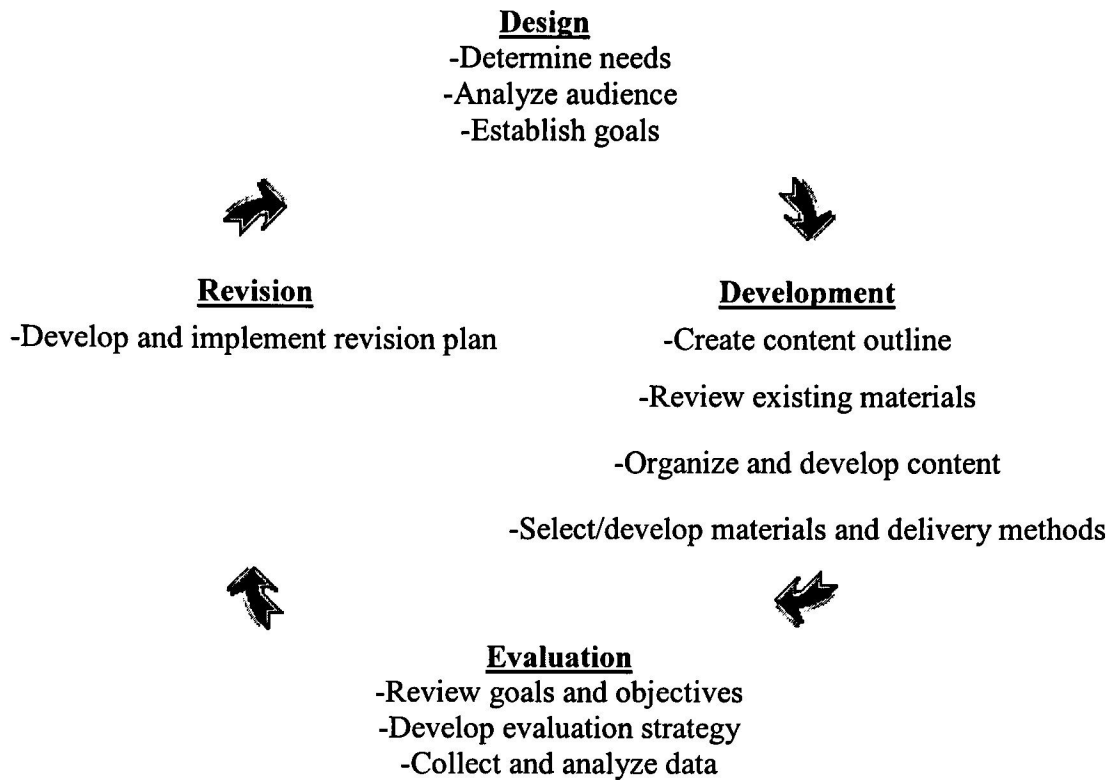


Figure 3: The Instructional Development Process

In the instructional development process, the needs of the learner, the requirements of the content, and the constraints facing both the teachers and the students should be considered. Adhering to sound principles of instructional development provides a process and procedural framework for addressing the instructional challenges.

Yoakan and Warren (1996) states that the major phases in the implementation process are conducting needs assessment; outline instructional goals and objectives; provide training and practice for instructors and facilitators; and implementation of the program (see figure 4).

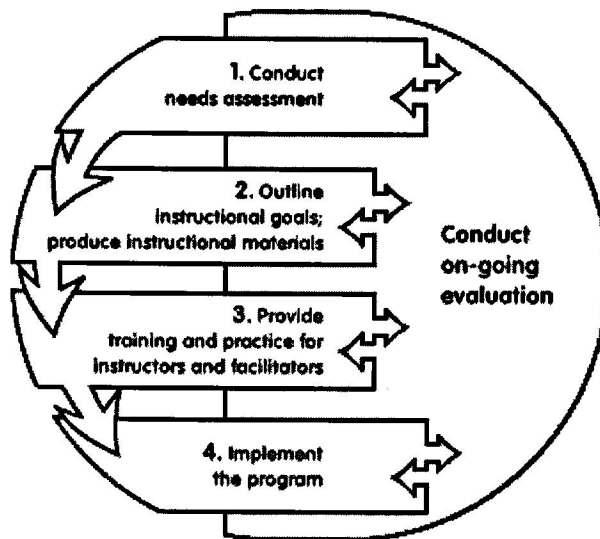


Figure 4: Implementation Process

They further states that selecting appropriate technology; allowing plenty of time for planning; providing consistent and timely feedback to students, encouraging student-to-student interactions, providing training for the instructors and facilitators, ensuring a support structure for students, and having a back-up plan for the technology have shown to impact the success of a distance learning programs.

Classroom teachers rely on a number of visual and unobtrusive cues from their students to enhance their delivery on instructional content. A quick glance reveals who is attentively taking notes, pondering a difficult concept, or preparing to make a comment. The attentive teacher consciously and subconsciously receives and analyzes these visual cues and adjusts the course delivery to meet the needs of the class during a particular lesson. The distance teacher has few, if any, visual cues, and according to Schlosser and Anderson (1994), this is why distance learning technologies should be thought out before implementing. They further states that redefining the roles of key participants such as technology selection and adoption, design issues, strategies to increase interactivity and

active learning, learner's characteristics, learner support, operational issues, policy and management issues, equity and accessibility, and cost/benefit tradeoffs would create a successful distance learning program.

The planning phase of course design and development is of major importance in distance learning. In the absence of attention of course design, instruction has the potential to appear disjointed and teacher-centered. According to Schieman, Teare, and McLaren (1992), a standby approach where traditional on-campus courses are re-worked slightly and then offered as distance course must be avoided. Eastmond (1994) supported Schieman, Teare and McLaren statement, who states, "when instruction is systematically developed, the course has organization, logical consistency, and wholeness that can engage students and supply the conditions for efficient learning" (p. 55).

Wohlert (1989) listed some keys to successful distance learning program as follows:

- ❖ Live interaction between the instructor and the students during the course.
- ❖ The presence of a classroom teacher in the remote sites who is involved in the learning process.
- ❖ The regular use of other media, such as computers, audiotapes, and two-way workbooks.
- ❖ The involvement and support of school administrators.
- ❖ The use of electronic mailboxes.

### Historically Black Colleges and Universities and Technology

From the time of legalized black education, the traditional role of HBCUs in the black community has been a catalyst targeted on academic achievement for their students, through concentration on creating and maintaining an academic environment in which all students, even those who may be under-prepared by conventional measures, can succeed academically. These institutions were founded with the purpose of educating disadvantaged blacks during the post-Civil War era, and to this day retain missions of fostering the intellectual and social development of their students (Wagener, 1998).

There are currently 118 historically black colleges and universities in the United States. Located in 24 states, the District of Columbia, and the Virgin Islands. HBCUs include public and private schools, two and four year schools, and graduate and professional schools. Historically black colleges and universities come in many shapes and sizes and are found in big cities, small towns, and rural areas. HBCUs include liberal arts schools, agricultural and research institutions, and scientific and technological centers. Together, they constitute less than three percent of more than 3,800 of US institutions of higher learning. They enroll about 16 percent of all black students in college, and produce approximately 27 percent of all B.A. and B.S. degrees in science and engineering awarded to African Americans annually. Of all African Americans who earn doctorates, approximately 35 percent have baccalaureates from HBCUs (Wagener, 1998).



A study conducted by National Association for Equal Opportunity in Higher Education (NAFEO, October 2000), into the status of telecommunication capabilities of the nation's 118 HBCUs found that about half of these institutions do not participate in distance learning program. The study was conducted on the campuses of United States and US Virgin Island's historically black colleges and universities. The study found that 58 percent of HBCUs participate in distance learning programs; however, only 13 percent offer degree programs by distance learning, 85 percent report that they do not offer degree programs, and one percent did not know. Of the 13 percent of HBCUs that report that they offer degree programs by distance learning, 33 percent are urban and 66 percent are rural. Larger HBCUs with enrollments or 2,500+ offer more degree programs by distance learning than smaller ones (see figures 5 and 6).

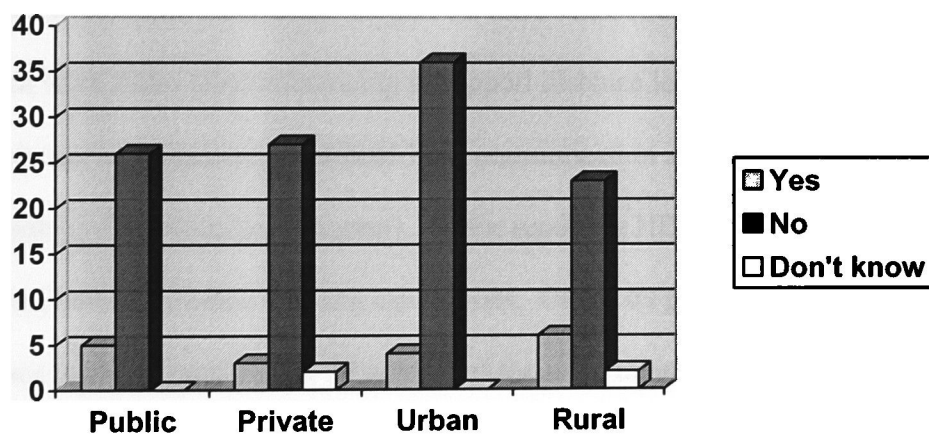


Figure 5: HBCUs Offering Degree Programs Through Distance Learning  
(Public/Private & Urban/Rural)

Source: U. S. Department of Commerce, 2000

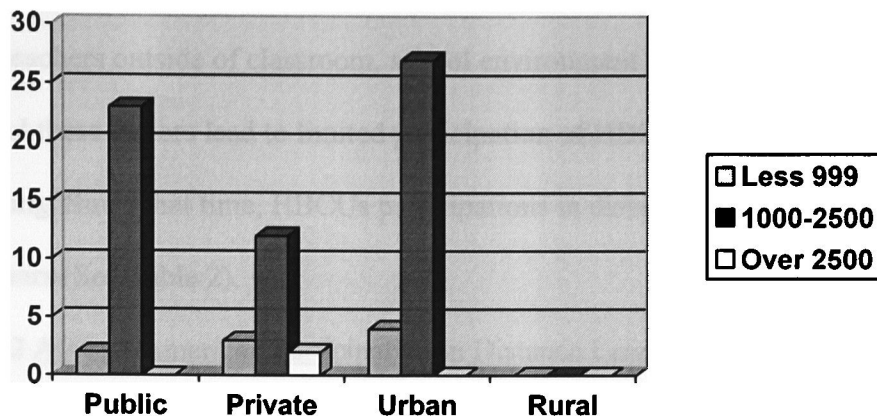


Figure 6: HBCUs Offering Degree Programs Through Distance Learning (Enrollment)

Source: U. S. Department of Commerce, 2000

The study also reported that more than fifty percent of all HBCUs have standard multimedia equipment, such as cameras, VCRs, projectors and monitor installations to support multimedia classroom. 63 percent have videoconferencing capability and 33 percent have audio teleconferencing to support distance learning programs (US Department of Commerce; National Telecommunication and Information Administration; Technology Opportunities Program). Of the reporting HBCUs, 69 percent of them reported having distance learning capabilities. Of the 69 percent who report having distance learning capabilities, 59 percent of them are urban institutions, and 40 percent are rural, and one percent did not know (NAFEO, 2000).

HBCUs participation was limited when distance learning first became a reality in higher education (U. S. Department of Education, 2000). The cost of purchasing software and hardware was the first barrier historically black colleges and universities had to overcome. According to U. S. Department of Education, Equal Employment

Opportunity Commission, another barrier was the lack of face-to-face opportunities to interact with teachers outside of classroom, school environment and culture experienced in HBCUs, and these factors lead to limited participation of HBCUs in the beginning of distance learning. Since that time, HBCUs participations in distance learning have grown through the years (See Table 2).

Table 2 African-American Participation in Distance Learning for Selected Years

YEAR	TOTAL NUMBER OF AFRICAN-AMERICAN	TOTAL NUMBER OF MALE	TOTAL NUMBER FEMALE	PERCENT MALE	PERCENT FEMALE
1981	2,931	1,772	1,159	60.5	39.5
1986	3,029	1,623	1,406	53.6	46.4
1987	3,403	1,836	1,585	54.0	46.0
1989	3,148	1,618	1,530	51.4	48.6
1991	3,575	1,672	1,903	46.8	53.2

Source: U. S. Department of Education, Equal Employment Opportunity Commission

According to The Chronicle of Higher Education (April 2002), the 105 historically black institutions and roughly 30 more predominantly black institutions confront the same distance learning technology challenges as other institutions as they work to train professors, improve infrastructure, and find some scarce money and time to develop online content. However, the job is even harder than at mostly white institutions, because black colleges have smaller endowments and charge their students less tuition. Their historical mission of cultivating a supportive atmosphere for black students also creates the lag in offering courses and degrees online.

### Summary

The literature review focused on four areas: historical perspectives of distance learning, instructional technology delivery methods, the process of developing and implementing distance learning and instructional technology program, and historically black colleges and universities and technology.

The following recurrent themes were identified in the literature: needs assessment, planning, instructional design, appropriate technology applications, student centered instruction, and support for teachers and students. These themes were explored and provide a context for understanding what it takes to develop a successful distance learning program or a workable distance learning program.

The university or college of the 21<sup>st</sup> century will no longer be a repository where students come for learning. It has become increasingly clear that students are capable of learning without the physical presence of a teacher. Advances in educational technology are allowing administrators and faculty to contemplate different modalities for course offerings, especially distance delivery. Designing courses for distance delivery requires careful thought and strategic planning.

## CHAPTER III

### THEORETICAL FRAMEWORK

This study examines the relationship among selected factors and the effectiveness of the implementation process of distance learning program at two HBCUs. That is, to what extent do these factors affect the success of distance learning and instructional technology implementation in two historically black colleges and universities?

The theoretical framework for this study will focus on the following theories: (1) policy analysis theory, (2) distance learning environment theory, (3) designing distance learning courses, and (4) distance learning implementation process theory. These theories provide a framework and a methodological approach for this study. That is methodology for planning, designing, implementing, and evaluating the effectiveness of distance learning and instructional technology.

#### Policy Analysis Theory

Developing a distance learning policy presents a variety of issues and challenges. According to Gellman-Danley (1997), selecting technology is perhaps the easiest part of developing a distance learning program. Most colleges and universities find an array of available delivery systems ranging from interactive television to sophisticated web-based asynchronous learning networks. As these institutions strive to provide quality alternative instructional

delivery and enter the increasingly competitive race for new students, two areas often receive little attention - policy development and planning. Soon the courses are on the air or traveling through cyberspace, and unprepared educators find themselves in legal, academic, fiscal, logistical and union controversies. Clearly, advanced policy deliberation and development is essential to the success and effectiveness of distance learning programs and their students. Distance education changes the learning relationship from the common, centralized school model to a more decentralized, flexible model. It also reverses social dynamics by bringing school to students, rather than students to school. This leads to a host of new issues for administrators to debate and the need to examine a host of existing policies.

Gellman-Danley and Fetzner (1998) proposed a theory to help decision makers look at the policy arena of distance learning. They suggested seven elements for attention: (1) Academic, (2) Fiscal, (3) Geographic, (4) Governance, (5) Labor-Management, (6) Legal, and (7) Student Support Services. Berge (1998) added two dimensions to Gellman-Danley & Fetzner theory: Technical and Cultural. King, Nugent, Russell & Lacy (1999) adapted Gellman-Danley and Fetzner and the Berge models, where they generated a Policy Analysis Framework (see Table 3) and determined that seven elements (Academic, Governance/Administration/Fiscal, Faculty, Legal, Student Support Services, Technical and Cultural) are policy related issues.

Table 3 Policy Analysis Framework for Distance Education

<b>Policy Area</b>	<b>Key Issues</b>
Academic	Calendar, Course integrity, Transferability, Transcripts, Student/Course evaluation, Admission standards, Curriculum/Course approval, Accreditation, Class cancellations, Course/Program/Degree availability, Recruiting/Marketing
Governance/Administration/ Fiscal	Tuition rate, Technology fee, FTE's, Administration cost, State fiscal regulations, Tuition disbursement, Space, Single versus multiple board oversight, Staffing
Faculty	Compensation and workload, Development incentives, Faculty training, Congruence with existing union contracts, Class monitoring, Faculty support, Faculty evaluation
Legal	Intellectual property, Faculty, Student and institutional liability
Student Support Services	Advisement, Counseling, Library access, Materials delivery, Student training, Test proctoring, Videotaping, Computer accounts, Registration, Financial aid, Labs
Technical	Systems reliability, Connectivity/access, Hardware/software, Setup concerns, Infrastructure, Technical support (staffing), Scheduling, Costs
Cultural	Adoption of innovations, Acceptance of on-line/distance teaching, Understanding of distance education (what works at a distance), Organizational values

Source: Gellman-Danley and Fetzner, 1998; Berge, 1998

According to King et al. (1999), the PAF description is effective and functional when analyzing distance education policy, and also fundamental to developing and managing distance education efforts. It is also consistent across many sectors (four year colleges, community colleges, etc.) and at many levels (department, college, system). The seven key policy areas in the policy analysis framework suggested places where

decision makers (administrators) can intervene in the distance learning system to make and manage changes. The PAF surfaced as practical decision making tools for planners and managers of distance education.

### Distance Learning Environment Theory

Salomon (1991) describes a learning environment as a system consisting of interrelated components that jointly affect learning in interaction with (but separate from) relevant individual and cultural differences. He suggests that when technology is introduced to the learning environment, the changes in the individual will depend on the changes distributed over the whole learning environment. He uses an investigative approach, which combines the analytic and systemic processes to study the generic components of the learning environment as perceived and experienced by teachers and learners. The analytic process involves an explanation of the components in terms of their contents, while the systemic process involves mapping out patterns of configurations of relations between these components.

Salomon's (1996) generic components of the learning environment include:

- ❖ a teacher and his/her teaching qualities
- ❖ relations and interactions of the learner
- ❖ rules and regulations governing the learning environment
- ❖ consensually held view of participants as learners
- ❖ the mental effort they are willing to expend in learning

While Salomon's approach focuses on the changes in the learner's learning as



technology is introduced, it has minimal reference to the interaction of the learner with the course material content, and the relations of the teaching organization with its immediate external and internal environments.

Wort (1998) examined the critical interactions within the education process by focusing on the following interactions:

- ❖ learner-teacher
- ❖ learner-content
- ❖ teacher-content
- ❖ learner-learner

Wort suggests using these dimensions as bases for analyzing the learning process where the intended learning outcomes from the central focus. This model focuses on the learning interactions within a distance learning environment. The position of “distance” in the learning process affects teaching roles, instructional methods and learner’s expectations, depending on the projected learning experience.

### Designing Distance Learning Courses

In her socio-technical systems theory, Miller (1998) considers the course development process to be dynamic with a number of critical interactions with external factors, such as the political environment, managerial and organizational issues, and the personal and professional settings of the participants. She suggests using the systemic approach for developing and evaluating a course in order to deal with the dynamic human interactions. Her proposed sociotechnical systems framework consists of

- ❖ technical (educational activities and curriculum)
- ❖ psycho-socio (interactions, expectations, values of the participants)
- ❖ organizational structure (materials and tutoring)
- ❖ institutional (structural working of institution)
- ❖ the environmental (workplace and personal environment)

Miller's approach provides a way of understanding the processes of interaction between students' involvement with the course material in the particular context of their work.

#### Distance Learning Implementation Process Theory

Holzl (1999) suggests a holistic approach to the implementation of distance learning into higher institutions. His model draws on the metaphor of the "fire triangle." The fire triangle is made up of three sides, fuel, oxygen, and a heat source. Without any one of these elements the fire cannot start nor continue. His triangle for implementing distance learning consists of infrastructure, training, and development and organizational culture. The infrastructure is the information technology (IT) hardware and software, which provides access to the staff and students, which have to create/access learning environments. The training and development also includes staff and students to ensure they have the appropriate levels of information literacy. The final and most important is the organizational culture, which includes the policies, attitudes, and personal models of learning, organizational climate, staff rewards, assessment and grading systems.

Willis (1992) describes the development process for distance learning, consisting of the customary stages of design, development, evaluation, and revision. In designing

effective distance instruction, consideration must be given to the goals, needs, and characteristics of teachers and students, but also content requirements and technical constraints. If unusual delivery systems are required, they must be made accessible to all participants. Revision based on feedback from instructors, content specialists, and learners is an ongoing process. Provision must be made for continually updating courses, which depend on volatile information, to keep the subject matter current and relevant (Porter, 1994).

### Presentation and Definition of Variables

The independent and dependent variables are stated below:

#### Independent Variables

The independent variable is the variable that affects the dependent variable under the study (Frankel & Wallen, 2000). For the purpose of this research, the following independent variables were used in the study: decision makers, funding (infrastructure, personnel and training), instructional technology model (voice, video, data and print), and instructional development.

Decision Makers: those who established policy, procedures, and programming components for the institution and those that are involved in the operational infrastructure for the effective delivery of distance learning programs. For the purpose of this study, decision makers are those who deal with the policy issues in the distance learning arena and those that plan for the present and future growth of distance learning.

Funding: the cost involved in the design of distance learning system, such as:

- Technology - hardware (e.g., videotape players, cameras) and software (e.g., computer programs).
- Transmission - the on-going expense of leasing transmission access (e.g., T-1, satellite, microwave).
- Maintenance - repairing and updating equipment.
- Infrastructure - the foundational network and telecommunications infrastructure located at the originating and receiving sites.
- Production - technological and personnel support required to develop and adapt teaching materials.
- Support - miscellaneous expenses needed to ensure the system works successfully including administrative costs, registration, advising/counseling, local support costs, facilities, and overhead costs.
- Personnel - staff and all people required for the distance learning functions.
- Training – technology training for students, faculty, facilitators, support staff and administrators.

For the purpose of this study, funding would be the source of funding for the distance learning program implementation and all that goes into the program and for the sustainability of the program.

Instructional Technology Models: technological options available to the distance educator. They fall into four major categories:

- Voice - Instructional audio tools include the interactive technologies of

telephone, audioconferencing, and short-wave radio. Passive (i.e., one-way) audio tools include tapes and radio.

- Video - Instructional video tools include still images such as slides, pre-produced moving images (e.g., film, videotape), and real-time moving images combined with audioconferencing (one-way or two-way video with two-way audio).
- Data – Computers send and receive information electronically. For this reason, the term “data” is used to describe the broad category of instructional tools, such as Computer-assisted instruction (CAI), Computer-managed instruction (CMI), Computer-mediated education (CME).
- Print - is a foundational element of distance education programs and the basis from which all other delivery systems have evolved. Various print formats are available including: textbooks, study guides, workbooks, course syllabi, and case studies.

Instructional Development: systematically planning, developing, and adapting of instruction based on identifiable learner needs and content requirements. This involves four stages:

- Design - determine need for instruction, analyze audience, establish instructional goals and objectives.
- Development – create a content outline, review existing materials, organize and develop content, and select/develop materials and methods.

- Evaluation – review goals and objectives, develop an evaluation strategy for program and learners, and collect and evaluate data.
- Revision – revise courses.

### Dependent Variable

The dependent variables are variables affected by the independent variable.

Dependent variables are also known as outcome variables (Fraenkel & Wallen, 2000).

The dependent variable in this study is the effectiveness of the implementation process of distance learning. Effectiveness of distance learning is based on sound distance learning policy, instructors preparation, educators' understanding the needs of learners, and instructors' understanding of the target population and their instructional needs.

Independent Variables

Dependent Variable

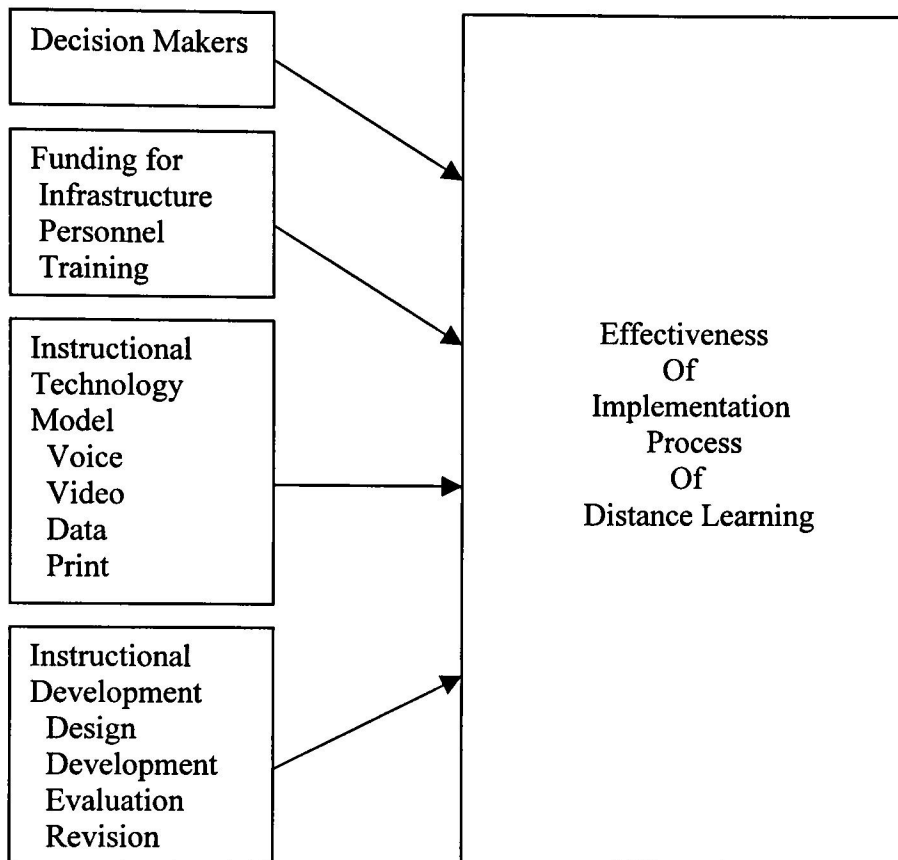


Figure 7: Illustration of Independent and Dependent Variables

### Definition of Terms

The definitions that follow describe the way certain terms were used in the study:

**Analog**: Information stored as an electrical signal with a continuous scale. Videotape and audiotape are analog.

**Asynchronous**: Communications between the student and teacher that do not take place simultaneously.

**Audio bridge**: A method used to connect multiple telephone lines for an

audioconference.

**Audioconferencing:** Voice-only communications linking two or more sites. In most cases, standard telephone lines and speakerphones are employed.

**Audiographic conferencing:** Voice communications supplemented with the transmission of still images. Pictures, graphs, or sketches can be transmitted during the conference. Standard facsimile (fax) machines are used, or computer-driven systems can be used.

**Bandwidth:** The transmission capacity of a telecommunications system. The greater the bandwidth, the greater the amount of digital information that can be transmitted per second.

**Baud Rate:** How many bits a modem can send or receive per second. Derived from the name of Emil Baudot, a nineteenth-century inventor.

**Bulletin board:** A computer-based meeting place (and its accompanying software) that allows people to discuss topics of interest, upload and download files, and make announcements.

**Bits-per-second (bps):** A measure for bandwidth or speed of modem transmission. Common rates are 2400, 9600, 14,400 and 28,800.

**Bridge:** A device, often leased through a telephone company, that links three or more telephone lines together for audio teleconferencing. See call-in bridge and call-out bridge.

**CD-ROM:** A small optical disc that can store over 650 MB of digital data.

**Chat mode:** Synchronous exchange of text through the Internet.



**Closed circuit television:** A point-to-point television distribution system installed on a wire-based system. Used in many schools.

**Computer Assisted Instruction (CAI):** uses the computer as a self-contained teaching machine to present discrete lessons to achieve specific but limited educational objectives. There are several CAI modes, including: drill and practice, tutorial, simulations and games, and problem-solving.

**Computer Managed Instruction (CMI):** uses the computer's branching, storage, and retrieval capabilities to organize instruction and track student records and progress. The instruction need not be delivered via computer, although often CAI (the instructional component) is combined with CMI.

**Computer Mediated Communication (CMC):** describes computer applications that facilitate communication. Examples include electronic mail, computer conferencing, and electronic bulletin boards.

**Computer-Based Multimedia:** HyperCard, hypermedia, and a still-developing generation of powerful, sophisticated, and flexible computing tools have gained the attention of distance educators in recent years. The goal of computer-based multimedia is to integrate various voice, video, and computer technologies into a single, easily accessible delivery system.

**Correspondence Classes:** An implementation of distance learning in which class materials are print-based, but may be augmented with audio or videocassettes. Students work independently with little or no in-person contact between student and instructor. Communication between students and instructor is conducted by mail, FAX, or e-mail.

**Database:** A collection of information, usually organized with searchable elements, or fields. For example, a library catalog may be searched by author, title, or subject.

**Dedicated telephone line:** A permanent telephone connection between computers. Usually a regular phone line that is not used for anything but data transmission.

**Desktop videoconference:** Multimedia microcomputers are used to display live video images that are transmitted over LANs or digital data lines.

**Dial-up connection:** A temporary, as opposed to dedicated, connection between machines established over a standard phone line.

**Digital:** Information that is stored in bits and bytes. Computer data is digital.

**Distance Education System:** The educational resources, processes, policies, and technologies that support remote learners who learn at a distance.

**Distance Learning:** Distance education takes place when a teacher and student(s) are separated by physical distance and technology, that is voice, video, data, and print, is used to bridge the instructional gap.

**Distance Learning Director:** An individual responsible for the overall implementation process and on-going activities of distance learning program.

**Distance Instructor:** Individual who accomplishes teaching by an appropriately targeted mixture of reading assignments (web and print), web based materials, e-mail, web based tests, remote tutoring (video and audio), remote teaching, remote interaction, and in-person support in a standard class environment.

**Distance Learner:** Individuals taking classes at a distance through a medium (voice, computer, data, print).

**E-mail:** Electronic mail; messages that are sent via a computer network, i.e., electronically. The messages are stored until the addressee accesses the system and retrieves the message.

**Educational Technology:** Electronic information and communication technologies that include: campus networks, multimedia computers, computer software, audio-, video-, and computer-conferencing systems, the Internet and World Wide Web, and other emerging information technologies applied to instruction, libraries, and student support processes.

**Fax (facsimile machine):** An electronic device that transmits text or graphics material over telephone lines to other locations.

**HBCUs:** Historically black colleges and universities.

**Information Technology:** The application of technologies to the organization, manipulation, and distribution of information.

**Infrastructure:** is the set of technologies in an environment that supports the mission of an institution.

**Instructional Design:** The systematic development of instructional specifications using learning and instructional theory to ensure the quality of instruction. It is the entire process of analysis of learning needs and goals and the development of a delivery system to meet those needs. It includes development of instructional materials and activities; and tryout and evaluation of all instruction and learner activities.

**Internet:** An Internet is a network. The term Internet is usually used to refer to a

collection of networks interconnected with routers. What has been commonly called the Internet (with the capital I) is the largest Internet in the world.

**IRC (Internet Relay Chat):** A multi-user live chat protocol. Using the one of the major IRC servers linked to each other, anyone can create a channel.

Anything typed in a channel is seen by all others in the channel.

**LAN (local-area network):** A computer network limited to a building or area of a building.

**Microwave:** A high-frequency transmission that can be used for television signals or computer data. Microwave transmissions are said to be line of sight, which means that they cannot pass through tall buildings or mountains.

**Modem (MOdulator-DEModulator):** A device that enables a computer to transmit and receive data from another computer through a phone line by converting the data into sound.

**Multimedia Teleconferencing:** A form of teleconferencing that uses multiple forms of teleconferencing together, such as a teleconference using two-way audio/videoconferencing and audiographics. The videoconference system provides audio and video while the audiographics provides high resolution still frame visuals.

**Offline:** Literally, not connected. Used to denote time spent preparing information to upload to a remote system, or to read information downloaded from a remote system.

**One-Way Videoconferencing:** A form of teleconferencing that delivers one-way motion video from an origination site to single or multiple reception sites. It is used where

persons at the origination site do not need to “see” participants at the reception sites.

Receiving sites usually communicate with the origination by audioconference (voice) or facsimile.

**Online:** Communications via a modem or network to a host system; the time the user is actually logged into the host.

**Online Course:** A course in which students participate in class activities from off-campus sites, usually home or work, using a computer, modem, and voice-grade telephone line. Computers are the primary vehicle for the delivery of instructional materials and communication between students and the instructor.

**PPP (Point-to-Point Protocol):** A protocol that provides a method for TCP/IP to run over a standard phone line. PPP is newer, and faster, than SLIP.

**Synchronous:** Communications between the student and teacher that take place simultaneously.

**Telecommunications software:** A program that allows a computer to communicate through a modem to another computer. Most telecommunications software can be configured so that dialing and setting of parameters are automatic.

**Teleclass:** An implementation of distance learning in which live class sessions are distributed through telecommunications technologies in real-time to students who are at a place different from that of the instructor(s).

**Telecommunication:** Facilitated communication between two distance points.

**Teleconferencing:** Electronic techniques that are used to allow three or more

people at two or more locations to communicate.

**Telecourse:** An implementation of distance learning that combines written materials, audio, and/or video materials (via cassette or other audio/video distribution systems) with instructor oversight through additional presentation, discussion or office meetings.

**Two-Way Video-conferencing:** A form of teleconferencing similar in concept to Audioconferencing. It permits point-to-point multipoint interactive voice and motion-video communication through either analog or digital signal distribution systems.

**Videoconferencing:** Transmitting motion video and audio to two or more locations for the purpose of interactive conferencing.

**Web (World Wide Web):** The network of hypertext servers, which allows text, graphics, and sound files to be mixed together and accessed through hyperlinks.

**Whiteboard:** A graphic display that can be shared by two or more users on a network.

#### Limitations of the Study

The limitations of the study are: access to the historically black colleges and universities decision makers, time restraints, small number of institutions, small number of distance instructors, and limited access to distance learning students. The research for this study was conducted through an interview guide, which was mailed to one coordinator and hand delivered to another coordinator because of the proximity of the two historically black colleges and universities to the researcher. Questionnaires were also forwarded to the coordinators to disseminate to the distance instructors and distance learners of their choice. The researcher also forwarded some questionnaires to some

distance instructors chosen by the distance learning director. The distance instructor forwarded the distance learner questionnaires to their students.

These results cannot be generalized to all HBCUs. The researcher hopes that the participants in the study answered questions honestly to maintain the integrity of the study. The interviewees may opt not to share the entire truth in regards to the survey and the questions because some of the questions are sensitive in nature.

### Summary

This chapter provided the theoretical and conceptual framework upon which this study is based. All the theories mentioned in this chapter are helpful in gaining a clear understanding in the effectiveness of the implementation process of distance learning.

In recent years, researchers have studied the effectiveness of distance learning and its delivery methods. Willis (1994) claimed that the success of distance learning relies on the key players – students, faculty, facilitators, support staff, and administration. He further stated that teachers and administrators must work together on identifying and resolving the issues, policies, and biases that might inhibit systematic use of distance education meeting academic goals. Some researchers suggested that distance education preparation should include faculty, staff support and administration training.

## CHAPTER IV

### RESEARCH METHODOLOGY

#### Introduction

The study was designed to examine the effectiveness of the implementation process of distance learning at two historically black colleges and universities; one private and one public. This chapter is divided into the following sections: design of the study, selection of the population, working with human subjects, data collection, data analysis, data trustworthiness/credibility, and summary.

#### Design of the Study

A qualitative approach was chosen for this study for reasons, which parallel assumptions made by Merriam (2001) regarding qualitative research. Merriam said, “Qualitative researchers are concerned primarily with process, rather than outcomes or products,” (p. 5) and this study was concerned with the effectiveness of the implementation process of distance learning at two historically black colleges and universities. She characterizes qualitative research as an umbrella concept covering several forms of inquiry that help to explain the meaning of social phenomena with as little disruption of the natural setting as possible, and in which the focus of the study is on interpretation and meaning. According to Bogden and Biklen (1998), qualitative approach lends itself to rich description of people, places, and culture, which are not



easily handled by statistical procedures.

Comparative case study is a descriptive method used to identify, analyze and explain similarities and differences. It is an intensive, holistic description and analysis of a single instance, phenomenon, or social unit (Merriam, 1988). The research method applied to this study was comparative case study because the study examined and compared the effectiveness of the implementation process of two historically black colleges and universities. The data were gathered using telephone interviews, face-to-face interviews and questionnaires. The face-to-face interviews were conducted at each institution's natural environment. The director of distance learning, the distance instructor, and distance learners were included in the study. The data were analyzed based on the research questions and other collected data such as directors interview, instructors' questionnaire and learners' questionnaire.

#### Selection of the Population

The institutions were selected based on the data gathered from various sources, (<http://www.smart.net/~pope/hbcu/hbculist.htm>, <http://chrconicle.com>, etc.), including a list of historically black colleges and universities' assessment of networking and connectivity from the U. S Department of Commerce (2001), and HBCUs' guide from the National Association for Equal Opportunities in Higher Education (2000). The websites of the 118 historically black colleges and universities were visited to identify the HBCUs that are involved in distance learning. Only 40 institutions displayed any links to distance learning. According to NAFEO (2000), only 58 percent of black institutions

participated in some form of distance learning. Of the 40 HBCUs that displayed any links to distance learning, seven are private institutions and 33 are public HBCUs.

The researcher randomly picked one private and one public HBCU based on the proximity of the institutions. The selected private and public HBCUs described below:

Private HBCU: is a comprehensive, private, urban, coeducational institution of higher education with a predominantly African American heritage. It was formed by the consolidation of a college and a university. It offers undergraduate, graduate, and professional degrees as well as non-degree programs to students of diverse racial, ethnic, and socioeconomic backgrounds. The current enrollment is 4,813.

Public HBCU: is a comprehensive, urban, coeducational land-grant university founded in 1912. It exists as a result of the merger between two universities. It offers 42 baccalaureate degrees and 21 master's degrees, as well as the two-year Associate of Science degree in nursing and dental hygiene, and doctoral degrees in public administration, administration and supervision, curriculum and instruction and psychology. The current enrollment is 8,750.

The distance learning coordinators of the two institutions were contacted by phone and electronic mail, and they both agreed to participate in the research. Samples of the interview questions and questionnaire for the distance learners and the distance instructors were forwarded to the coordinator for each of the selected institutions. The distance instructors and distance learners were included in the study.

Tables 4 and 5 illustrate the research sample used in this study.

Table 4: Research Sample for Public Institution

<b>Institution</b>	<b>Director</b>	<b>Distance Instructors</b>	<b>Distance Learners</b>
1	1	5	10

Table 5: Research Sample for Private Institution

<b>Institution</b>	<b>Director</b>	<b>Distance Instructors</b>	<b>Distance Learners</b>
1	1	5	10

The interviews were conducted on location at each institution. The researcher left the decision of dissemination of the questionnaire up to the coordinator at each of the institutions. One of the coordinator gave the researcher the names of some of the distance instructor to be contacted. The researcher contacted the distance instructor to disseminate the questionnaires. The researcher asked the distance instructors to distribute the distance learners' questionnaire to their students. The instructors disseminated the distance learners' questionnaires to their students and the researcher picked up the completed questionnaires. The other coordinator forwarded the questionnaires to distance instructors and distance learners to be completed. The questionnaires were completed and forwarded to the researcher by the distance learning coordinator through electronic mail.

#### Working with Human Subjects

The researcher received verbal permission from the learning coordinator of each of the institutions. Study participants were then informed in a letter about the intent of

the study. A copy of the interview questions and questionnaire for both distance learners and distance instructors was forwarded with the cover letter.

### Data Collection

Qualitative data consist of “direct quotations from people about their experiences, opinions, feelings and knowledge” obtained through interviews; “detailed descriptions of people’s activities, behaviors, actions” recorded in observations; and “excerpts, quotations, or entire passages” extracted from various types of documents (Patton, 1990). Qualitative data collection is about collecting data through interviews, observations and documents in everyday term (Wolcott, 1992).

The following steps were used to collect research data:

First, participants for the study were selected through various websites for historically black universities and colleges. Through the websites, the number of historically black colleges and universities that participate in distance learning was determined. Selection of the participants was made randomly based on the proximity of the institutions to the researcher. The researcher selected one private four-year institution and one public four-year institution that offer distance learning and their ability to contribute to the study. Both institutions were contacted by phone, electronic mail and postal mail with a cover letter explaining the study in detail.

Following the selection process, the researcher mailed samples of the coordinator’s interview questions, five distance instructor questionnaires, and 25 distance learner questionnaires to the coordinator at each of the institutions. The interview

questions and the questionnaire were based on the research questions and the variables mentioned in the study. The researcher used person-to-person form of interview. Dexter (1970) stated, “Person-to-person interview can be defined as a conversation – but a conversation with a purpose” (p. 35). Data were collected using a structured interview guide and questionnaire developed by the researcher. This structured method of interviewing is where wording of questions was predetermined. The coordinators’ interviews were conducted at each coordinator’s environment. The first round of interviewing was done by telephone in order to establish rapport with participants who were both near to and far from the researcher.

The coordinators’ questions specifically focused on the institution’s policy, strategic plan, mission and goal, funding and overall distance learning implementation process and decisions. The questionnaire for the distance instructor focused on the design of instruction, selection of delivery and faculty development, and the questionnaire for distance learner focused on the experience of learning at a distance. Based on the focus of the study, examining the effectiveness of the implementation process of distance learning, the researcher took a holistic approach by involving all those that are involved in the program – administrators, teachers and students.

### Data Analysis

Data analysis is the process of making sense out of the data. Making sense out of data involves consolidating, reducing and interpreting what people have said and what the researcher has seen and read – it is the process of making meaning (Merriam, 2001).

This section presents an analysis of the data that were obtained through interviewing the distance learning coordinators at the selected HBCUs and from the questionnaire that were completed by the distance instructors and distance learners. The phone interviews and questionnaire were organized into phases:

Phase 1: Data were transcribed following the person-to-person interview.

Phase 2: Data from the interview were coded and categorized.

Phase 3: Interview data were analyzed and emergent themes were identified.

Phase 4: Questionnaires were returned and reviewed.

Phase 5: Data from the questionnaires were coded and categorized.

Phase 6: Data from the questionnaires were analyzed based on the research questions in order to identify emergent themes.

Phase 7: Data were written-up.

The purpose of the study as stated in Chapter I was to investigate the effectiveness of the implementation process of distance learning at two historically black colleges and universities.

According to Mady (1982), qualitative approach is striving to understand the perspective of the program stakeholders, looking to firsthand experience to provide meaningful data, and addressing the concerns with the changing and dynamic nature of reality. Qualitative design focuses on a holistic view of what is being studied (via documents, case histories, observations and interviews), and data are collected within the context of their natural occurrence.

According to McMillian and Schumacker (2001), the ultimate goal of qualitative

research is to make general statements about relationships among the categories by discovering patterns in the data. Dey (1995) stated that “the core of qualitative analysis lies on three related process: describing phenomena, classifying what and seeing how the concepts interconnect” (p. 67). Ordering or classifying categories can be done in several ways to discover patterns. For this study, categories were organized based upon the selected process: decision makers, funding (infrastructure, personnel, training), instructional technology models (voice, video, data, print), and instructional development. The data were analyzed based on the research questions, coordinators’ interviews, instructors’ questionnaires and learners’ questionnaires (see table 6).

Table 6 Frameworks for Data Analysis


---

**Research Questions Coordinator Distance Instructor Distance Learner**


---

Decision Makers

1. What motivated the university to embark on a distance education program?
2. Who was responsible for developing and implementing the vision of the program?
3. What is the organizational structure in place to manage the program, how was it developed?
4. How were policies developed to guide the program?
5. Who is responsible for making decision on (a) the operation of the program (b) the direction of the program?
6. What are the goals and objectives that drive the operation of the program?
7. Is the program part of the university mission and goal?
8. What strategic plan is in place for the program and by whom was it developed?

Funding

9. How is the program funded?
10. How will the program be sustained?



Table 6 (continued)

<b>Research Questions</b>	<b>Coordinator</b>	<b>Distance Instructor</b>	<b>Distance Learner</b>
11. Is there a faculty development program designed to train and support the development of distance learning courses.			
12. Were the faculties compensated, given release time or otherwise rewarded for implementing distance learning courses?			
<u>Instructional Technology Models</u>			
13. What technologies are used to deliver the courses?			
14. What infrastructure does your university have to support the chosen technologies?			
15. Who makes the decision on the instructional technology model?			
<u>Instructional Development</u>			
16. What assessment is in place to measure the success of the program?			
17. How are learners' data collected and treated?			
18. What challenges have been experienced in the development of the distance learning courses?			
19. What challenges have been experienced in the implementation of the distance learning courses?			
20. What factors enabled the implementation of the distance learning program?			

### Data Trustworthiness/Credibility

Credibility is crucial to any study undertaken by any researcher. An interview guide is concerned with whether the interview obtained the intended purpose of a study. The interview guide and questionnaires used by the researcher were adapted from PBS-adult learning service, The Agenda (1994), U. S. Dept. of Education (2000), and NAFEO (2000).

The researcher's doctoral committee reviewed the interview guide and questionnaires for reliability and validity. A sample interview guide and questionnaires were given to the distance learning coordinators for review and further editing was done based on the input from the coordinators. The interview and questionnaires were designed to elicit the process the two institutions undertook to implement distance learning.

### Summary

This chapter discussed the research method and procedures that were used for examining the effectiveness of the implementation process of distance learning in two historically black colleges and universities. The design for this study was a qualitative, comparative case study, which gives a narrative description of the process. The interview guide and questionnaires were constructed with the implementation process of distance learning in mind and also addressed the effectiveness factors: decision makers, funding, instructional technology and instructional development.

The data were based on two instruments: interview guide and questionnaires.

The interview guide was administered to the coordinators of the distance learning program, and the questionnaires were administered to the distance instructors and distance learners. The interview guide for the coordinator was a 25-item guide, which focused mainly on the institution's policies, strategic planning, and source of funding for the distance learning programs. The questionnaire for the distance instructor focused on how courses were implemented, what media were used, professional development provided, and method of student evaluation. The questionnaire for the distance learner focused on learner's knowledge and expectation. The data from the study were analyzed by the researcher and presented in form of descriptive analysis and visual tables.

## CHAPTER V

### DATA ANALYSIS

The basic data collection methods used in this study were interviews, questionnaires (distance instructors and learners), and analysis of distance learning documents (distance learning brochure, policy and strategic plan manual, progress report, distance learning organizational chart, classes evaluation form, and student evaluation form). The collected data were analyzed based on the research questions and the selected process: decision makers (policy, procedure, program structure), funding (infrastructure, personnel, training), instructional models (voice, video, data, print), and instructional development (design, development, evaluation, revision).

The research findings were compiled and discussed according to four major categories: policy, funding, instructional technology models and instructional development. Each category identifies the research questions aligned with each theme. The opinions and views of directors, instructors and learners are provided to support the interpretation of the participant's perceptions.

In determining the policy, mission, goals and organizational structure of distance learning in these two institutions, the researcher was guided by eight research questions:

1. What motivated the university to embark on a distance education program?
2. Who was responsible for developing and implementing the vision of the program?

3. What is the organizational structure in place to manage the program, how was it developed?
4. How were policies developed to guide the program?
5. Who is responsible for making decision on (a) the operation of the program (b) the direction of the program?
6. What are the goals and objectives that drive the operation of the program?
7. Is the program part of the university mission and goal?
8. What strategic plan is in place for the program and by whom was it developed?

The responses from the director of the two institutions provided a vivid picture of the policy and strategic plan of the distance learning, the direction of the distance learning program, funding for the program and the overall effectiveness of implementation of the distance learning program. The directors' responses were categorized as follows:

**PubDirector** – defined as the director for the public HBCU

**PrvDirector** – defined as the director for the private HBCU

### Mission

Theme: Mission defined as an operational charge of a program.

### Directors' View and Quotes

What is the mission of the distance learning program?

**PubDirector:** Our institution defines Distance Learning as a physical separation of the teacher and learner whereby communication and instruction take place through, or are

supported by, any technological means such as telephone, radio, television, computers, satellite delivery, interactive video, or any combination of present and future telecommunication technologies. This program is part of the Center for Extended Education and Public Service, which is the administrative unit of the university that is responsible for coordinating academic and community service outreach that advances the institution's mission of instruction, research, and service. The Center offers lifelong learners educational opportunities that encompass credit, noncredit, Continuing Education Units (CEU), distance learning, special training, and technical assistance programs. The programs offered through the Center, including distance learning programs, are designed to meet the professional, career development, personal and civic awareness needs of the students and selected client groups statewide.

The mission of distance learning is to provide greater access for students to the academic and noncredit offerings of the university; to ensure quality teaching in the off-campus programs by utilizing, to the fullest extent, full-time faculty members to teach classes offered by distance education; and to develop cooperative efforts with other institutions, K-12 educational agencies, and community entities in order to provide opportunities for teaching, research, and public service. More significantly, the mission of the distance learning program is to provide more effective post-secondary education to our residents using our present technology to provide a wider variety of courses, and greater access to higher education to individuals who cannot come on campus to attend school because of family, work, distance and/or other obligations.

**PrvDirector:** The mission of our institution distance learning program is to provide timely and appropriate research, development, application, and maintenance of informational and instructional systems designed to offer a full complement of distance learning programs to all of its constituencies. This mission is in alignment with the institution's academic strategic plan. These services will be provided to K-12 schools, institutions of higher education, business and industry, and will enhance the educational process and offerings by utilizing two-way interactive distance learning technologies that best fit the need of the learner population.

### Decision Makers

Theme: Decision Makers defined as the administrator who makes decisions on the operation of the distance learning program and the direction of the program

Who makes the decision for the distance learning program?

**PubDirector:** Any decision goes through the chain of command from lowest to the highest. The decision making process goes from the Director of Distance Education, which is myself, to the Associated Vice President to the Vice President of Academic Affairs and to the President of the Institution. Everyone involved in the decision making is also involved in planning the direction of the distance learning program. The director is responsible for the overall day-to-day operation of the distance learning program and the Associate Vice President of Academic Affairs has the responsibility for the program's implementation. We have the Distance Education Committee that develops and

recommends distance education policies and procedures to the Vice President of Academic Affairs.

**PrvDirector:** Distance learning is part of the university academic affairs unit, thus the program decision making process goes through the university process as any other program in the institution. It has to be approved by the president. The distance learning program has to follow policy and procedure and abide by the institution's rule. Distance learning is part of the institution's goal. As the director, I have the overall responsibility for the management and operation of the Distance Learning and Continuing Education Programs. I'm responsible for developing and implementing systems and activities that will ensure the advancement of these programs. The director is also responsible for recruiting and supervising competent staff, evaluating staff and all aspects of operation, making recommendations on policy, developing and managing budgets, and raising the local, national and global visibility of the programs to the university's administration.

### Organizational Structure

Theme: Organizational Structure defined as an organized body that collaborates on operation and direction of the distance learning program.

What organizational structure is in place to manage the distance learning program?

**PubDirector:** The organizational structure has changed and is still evolving. There was a Dean of Extended Education who was in charge of distance education and continuing education, but the position was eliminated. The former Dean of Extended Education created distance learning policies and procedures and put the strategic plan in place. The



vice president, president, and the board of regent approved the policies and procedures to guide the program. The Associate Vice President now oversees the Center for Extended Education (distance learning and continuing education) and Public Service, and has the overall responsibility for distance learning program implementation.

The faculty, administrators and other support personnel maintain an equal level of services to all students regardless of location. Instructors provide the same quality of education using the distance education medium as in on site classes. Right now, I'm doing three peoples' jobs; however a proposal is in place for new positions and personnel. As of now, I'm the technical person and the contact person for the students and faculties; therefore, I make myself available to help the faculties and students with any technical problems. We are in the process of hiring a technical support staff.

**PrvDirector:** The management of the program is done through collaboration between the director and the provost of the institution. We have several personnel that are part of the distance learning program such as director of faculty training and development; technical support associate; distance learning lab supervisor; distance learning lab coordinator; research associate; and technical assistant. This organizational structure is in place to help us fulfill the distance learning program vision and enhance the distance learning program.

The vision states, " The distance learning program at our institution envisions a broad and far-reaching program that will profoundly impact the quality of education and its mode of delivery to its students." It will serve as a catalyst to enhance current instructional pedagogies while allowing faculty to develop new approaches by leveraging

multimedia technologies. The university expects that the incorporation of distance learning technologies will allow for a more cost-effective delivery of education to its students on campus as well as expand its student base to those off campus through remote delivery options. As you can see, our vision requires that we have people in various positions to help us make our vision a reality.

### Policy

Theme: Policy defined as framework for distance learning operation, an agreed upon set of rules that explain all participants' roles and responsibilities.

How were policies developed to guide the program?

**PubDirector:** The purpose of the distance learning policy at our institution is to assure a quality distance learning program. Distance education is an established and effective method for extending educational opportunities while keeping within the established mission of the university. We have a Distance Learning Committee that was established as an advisory committee to the Vice President of Academic Affairs in developing policies and procedures for implementing, maintaining and evaluating a distance education program at the institution, and the committee also advises the Vice President on distance learning policies and procedure.

The goals of the committee are to: provide a forum for administrators and faculty to address distance education issues, problems, and establishing collaborations between academic units; promote the efficient use of distance education in order to provide academic access and quality instruction; promote faculty training and utilization of

Interactive Television ITV; and other distance education technology. The committee establishes operational policies and guidelines for program delivery through distance education, promotes partnership efforts between the institution and other institutions to coordinate and develop new student markets for specialized courses each respective institution offers, and promote the use of distance education among diverse campus units and other higher education programs with regard to distance education and related technologies.

The committee is also responsible for setting annual goals for distance learning and overall program review. The committee develops and recommends distance learning policies and procedure to the Vice President of Academic Affairs. The Vice President appoints representatives from all major colleges/schools and other academic and administrative units as needed to provide a cohesive and involved advisory body. Distance learning policies are established for: Program Review and Approval; Admissions for Distance Learning; Undergraduate Academic Retention Standards; Faculty Promotion; Inter-institutional Relationships and Off-Campus Affairs; and Library/Computer Resources Financial Aid.

**PrvDirector:** The Distance Learning Task force was formed to conduct research, analyze and make recommendations on policies and procedures to the University Information Technology Senate Committee. Since its inception, the Task Force has played a pivotal role in the development and implementation of the University's distance learning program. The task force handles issues such as the development and enhancement of the university's technological infrastructure, faculty involvement in distance learning,

delivery of distance learning services to students, and the accreditation of distance learning courses.

The Distance Learning Task Force is made up of representatives from five schools in the university and under the Task Force there are several subcommittees that are responsible for various policies. Distance learning policies are established for: Tuition for Distance Learning Courses, Faculty Incentives to Develop Distance Learning Courses, Faculty Compensation for Teaching Distance Learning Courses, Intellectual Property, Faculty Evaluation, and Distance Learning Course Approval.

### Funding

In determining the source of the funding for technology, infrastructure, personnel and training, and the sustainability program in the two institutions, there were four research questions:

9. How is the program funded?
10. How will the program be sustained?
11. Is there a faculty development program designed to train and support the development of distance learning course?
12. Were the faculties compensated, given release time or otherwise rewarded for implementing distance learning courses?

Theme: Funding defined as the source from where the program received the funding for infrastructure, delivery technologies, personnel, faculty development for online

instruction, and other budgetary and policy issues to sustain and promote effective online teaching and learning.

How is the distance learning program funded and sustained?

**PubDirector:** The funding for the distance learning program and the sustainability for distance learning program comes from several sources. The institution receives money from different sources such as State grants, other grants, and continuing education. We also receive funding from departmental budget and remote location grant. The sustainability of the program comes from the same sources that funded the implementation of the program. The funding we received is for infrastructure, training, personnel, and technology models. We offer training and technical support for those faculties developing and teaching distance learning courses. Our faculty members receive appropriate training in distance learning to help them develop course syllabi suitable for distance learning. We provide adequate access to learning resources and services to support courses.

Faculty development programs have become a part of the distance learning center's service to the university. Special sessions and training conferences are offered throughout the year. The faculty receives technical assistance on creating and putting courses online and technical assistance is also provided for the distance learners.

Workshops are provided through the Board of Regent for faculty teaching online courses. We offer stipends to those developing courses for Regent Online Degree Program. We have a proposal that would allow us to provide extra service pay for faculty developing courses here at the university. This stipend is given to the faculty for each online course.

Faculty also receives laptop as an incentive for developing online course. The next training goal of the distance learning program is to provide training for faculty using video courses.

**PrvDirector:** The institution received funding for the program from external sources such as grants and Title III, and tuition and fees are used to sustain the program. The program also received support through a grant from GRA, Lilly Foundation and UNCF to setup distance learning center, hire personnel to support the distance learning program, and provide training and incentives to the faculty. Faculty development and training is ongoing and faculties are encouraged to develop distance learning courses in their tenure or promotion package, which is an incentive for creating online courses. We have four center resources for faculty development, and staff and students training: (1) DLITE (Distance Learning Instructional Technology Education Center), (2) MATES (Mentor Apprentice for Technology Education Support), (3) STARS (Student Technical Assistance Resource), and (4) LABS (Faculty Resource Lab, Video conferencing Lab, Student Open Access Lab, and distance Learning Training Lab).

Workshops for our faculty, staff and students are provided through our Distance Learning Instructional Technology Education (DLITE) Center. This center provides individual or group assistance to our faculty, staff and students. In the center, we use our faculty who are MATES (Mentor Apprentice for Technology Education Support) and have special training to deliver DLITE workshops. They provide individual assistance and training to faculty working in the Faculty Resource Lab and through workshops conducted by the DLITE Center. We also have the Distance Learning Training Lab,

which is designed to facilitate distance learning and instructional technology workshops. We send our staff to distance learning conferences to keep abreast of what is going on in the world of distance learning. There is a plan in place to compensate faculties for one release course or provide stipend for developing distance learning course. We provide technical support to our students who are enrolled in online courses through the Student Open Access Lab. This lab is operated to meet the daily computer needs of students as they pursue their academic programs.

### Instructional Technology Model

In determining the method or methods of the instructional technology models used in delivery distance learning program and the infrastructure, there were three research questions:

13. What technologies are used to deliver the courses?
14. What infrastructure does your university have to support the chosen technologies?
15. Who makes the decision on the instructional technology model?

Theme: Instructional Technology Model defined as various technology used in the delivery of distance learning program.

What medium/media and resources were chosen to deliver courses and/or programs that will be accessible to students, receptive of different learning styles, and sensitive to the time and place no limitations of the students?

**PubDirector:** Our distance learning program includes Interactive Compressed Video, Web Based Courses and the Video Independent Study Program. We provide access to resources and services online. We offer distance learning courses through Web

Enhanced, Online and Regent Online Degree Program. The Regent Online Degree Program is a combine program by six universities and 13 community colleges. The students have the option to decide on what type of media suit their learning styles. There are several media available for the students to select from. We have ITV- Cable link media on both campuses. We have Video Independent Studies for those students you enjoy studying independently but need some face to face with their teacher. We provide Telecommunication access, Interactive Video Classroom, workstations that are connected to VAX machine, Internet Access, web-based courses and E-mail access. The technology committee initiated the decision on the various technologies we use in distance learning program and approved by the president of the institution. We have networking capabilities that include Integrated Services Digital Network (ISDN) connections and Asymmetric Digital Subscriber Line (ADSL).

We provide access to resources and service such as workstations that are connected to the Main Campus VAX so that students may access the online catalog and online databases, Interlibrary loan via e-mail to librarians which include books and periodical articles that are faxed, library orientation sessions via ICV with demonstrations in the use of online catalog and databases, easy and direct communications via e-mail or phone, and telecommunications.

We have infrastructure such as facilities and communication system that support the entire medium we use for distance learning programs. These facilities are dedicated to distance learning programs. We facilitate videoconferences and compressed videoconferencing with our students at other locations. We have resources such as



virtual library to provide access to library and information services to students, and virtual bookstore to provide access to the books online and for students to purchase online. We support the students in their decisions on media technology and try to find ways and means of giving them the necessary support to use their own selected technological tool(s).

**PrvDirector:** We currently offer Distance Learning Courses and Web Enhanced Courses. The following media are provided for our faculties and students in the distance-learning program: Internet, One-way and Two-way Video, One-way and Two-way Audio, Phone Lines, and Teleconferences Video. Our infrastructure includes facility (DLITE Center) that houses our labs, videoconferencing equipment, and various technological infrastructures. This is part of different modes that we use in addressing various learning styles to accommodate our students. We have four distinct resources: (1) MATES for faculties who have the special training to deliver distance learning workshops, (2) Faculty Resource Lab, which offers faculty the opportunity to work independently or receive assistance and training in developing the knowledge and skills needed to infuse technology into instruction and offer classes via distance learning technologies, (3) the Student Open Access Lab, which operates to meet the daily computer needs of students as they pursue their academic program, and (4) the distance learning Training Lab, which facilitates distance learning and instructional technology workshop.

Faculty may request the use of this lab to conduct classes that meet the criteria. We are in the process of designing infrastructure for Video Conferencing Lab, which

offers the most sophisticated technology to enable two-way live interactive video instruction. Our next phase in the distance learning program is Tele-courses. This phase requires a very costly technological infrastructure, costly and highly specialized video-conferencing equipment and furnishings, and development of a network of remote sites through which to transmit programs and courses. This also would involve intensive faculty training to deliver live instruction through video teleconferencing technology. The faculty must be well trained to obtain and retain the attention of their students, projects a captivating camera presence, and establish a satisfactory level of comfort performing under the intensity of the camera and the lights. This is a synchronous method that would immediately put the university on show to the public.

#### Instructional Development, Assessment and Evaluation

In determining the instructional development and assessment of distance learning program, there were five research questions:

16. What assessment is in place to measure the success of the program?
17. How are learners' data collected and treated?
18. What challenges have been experienced in the development of distance learning courses?
19. What challenges have been experienced in the implementation of the distance learning courses?
20. What factors enabled the implementation of the distance learning program?

Theme: Instructional Development, Assessment and Evaluation defined as the content development and presentations of the content online, assessment of the distance learner, and evaluation of the program.

Who design the online courses and what assessment is in place to measure the success of the program and the learner? How is the program measured for success?

**PubDirector:** Distance Learning courses meet all academic requirements and quality standards of the university. Each distance education course offered by the institution is consistent with the level, nature, and mission of the university. When a course is offered through distance learning, it carries the same code, title, and credit as other sections of that course at the university. Each course provides for interaction and timely feedback between students and faculty member(s) teaching the course. As appropriate, these interactions may be individual, group or mixed. They may take place electronically (e.g. by telephone, by computer or by interactive video) or in person. Each course must include an assessment of that delivery mode in its procedures for monitoring and assessing student performance.

Preparation is necessary to assure a successful learning experience for learners and a positive teaching experience for the instructor. We encouraged our distance instructors to use various teaching methods to retain the interest of the distance learner. Traditional teaching methods can be modified to work in the distance learning classroom. Instructors are also encouraged to incorporate different teaching styles in order to keep the attention of the distance learners.

Developing online courses requires planning and extra time to put it all together.

Therefore, we provide our faculty with adequate education, assistance and support to help them develop content driven curriculum. We provide our faculties resources required for various distance teaching approaches and course development. We encourage our distance instructors to tailor their materials to their own teaching needs and style, and also to develop standards-based content to the students. We also encourage them to think about how the content would be presented to the learners, whether using graphics and/or multi-media tools. Distance instructors must attend a WebCT workshop and complete so many hours of training before developing an online course.

All distance learning classes are coordinated between the department heads, deans, the Office of Admissions and Records, the Graduate School, and the Center for Extended Education and Public Service. The distance learning courses are recommended and approved through normal university review procedures. The appropriate academic dean/director and the Dean of Extended Education coordinate programmatic planning with other cooperating institutions. Each department in the university decides on what course to put online and design their own online courses. All courses taught through distance education systems must be approved and recommended through plans of colleges/schools. Recommendations for distance learning courses are made to the university's distance learning committee to determine time and space considerations. Distance instructors are required to complete DE 2 form, Web Course Delivery Course Proposal form when they are ready to place an online course on schedule. The administrators must approve the course before it can go online. To develop a RODP (Regent Online Degree Program) course, the same procedure must be followed. The

request form will then be submitted to the curriculum committee at the Board of Regents for approval.

The Distance Learning Center has not been monitoring the effectiveness of the program but each course must be evaluated before being put online. Once the course is online, the assessment of the course is up to the department. Each department that puts a course online is responsible for the evaluation of the program, the distance instructor and the learner. The distance learning center requires that each learner complete an online evaluation form at the completion of each distance learning course. This evaluation is used to evaluate the success rate of the program and of the learner, plan future training for the faculty, and gives more support where support might be lacking.

Each student enrolled in a distance learning course is given access to all academic support services, instructional equipment, and campus events and other non-academic activities, which the university provides to other students. Support services may include but are not limited to academic advising, counseling, library and other resources, computer access, tutoring services and financial aid.

Our program is still evolving and changing. Currently, we have about 3,500 students in the program and eighty five percent completion rate. This indicates that the instructional development and methods of delivery has been very effective and successful. Even with all our best intension to have effective distance learning program, we ran into challenges such as budget restrain, small staff and red tape for purchase order. Currently, I'm wearing about two to three hats to be able to have an effective distance learning program, and also because the distance learning program center is not

staff to full capacity. There is a proposal in place to hire more personnel; to reimburse the faculty that teaches distance learning course by giving them \$2000 stipend for each course, which is less than what Reagent Online Degree Program provides; and to give release time to the distance instructors.

**PrvDirector:** We leave the designing of the course up to the distance instructor but we provide training and technical support in putting the course online. The process to add a course online usually start with the Department Chair informing the Registrar of the intent to have a course online and this is the same procedure for any course that needs to be added to the schedule. The total instructional development falls on the department. We have an Online Course Design Clinic, which teaches faculty the steps involved in designing online courses. We also provide workshops such as how to create Web page and Course Syllabus for Online Learning, Building Course Content in WebCT, Quizzing, and Assessment in WebCT. We hired Eduprise, a leading technology trainer to do some of the faculty training.

We have required distance learning format that the institution uses to achieve uniform presentation for online courses. This format includes homepage, which is the virtual greeting, course content, and related tools. On this homepage, course information, syllabus, calendar, communication tools (Email, discussion, bulletin board, chat room, whiteboard and audio), pages/URLs (resources on hardware/software/plugin requirements, links to the institution, school, departments and units websites), links to library and related class or subject matter, evaluation tools, and study tools. Distance Instructors can either put their course online or ask one of the STARS (Student Technical

Assistance Resources) to load the contents in WebCT. We provided all the necessary training for our faculty to design an effective instructional technology.

Each department monitors the effectiveness of each online course because the courses are housed through the office of the Dean and department chair of each school. The distance center acts as a facilitator for the department. The task force developed Student Evaluation Online Form as part of the institution's traditional instrument. We have online student evaluation form (draft) that is completed by each student enrolled in a distance learning course. The assessment of the online courses and the evaluation of the students enrolled in the distance learning program is left totally up to the department and the distance instructor.

#### Directors' Overall Comment about Institutions' Distance Learning Program

**PubDirector:** Our distance learning program is fairly new, about one year, yet it has been very successful. We have received overwhelming response from our students. We currently have 3,500 students taking one form of distance learning course with 85% completion rate. We are continuously extending our program in terms of delivery modalities, infrastructure and extending to the community at large. Right now we are in the process of devising alternative ways for our distance learners in handling things such as dropping a class, financial aid advisement and other non-academic activities without coming on campus. A distance learner can drop a class by faxing the request to the registrar's office, and not having to come on campus. Our distance learning program continues to evolve in many ways including continuous faculty development, compensation for distance instructors and training for our students.

**PrvDirector:** We launched the first phase of our distance learning program in fall of 2001 with sixteen online courses and nineteen web enhanced course. Over 500 students have enrolled for these online courses and 18 pioneer faculty members participated in the training and 15 of them developed and delivered their own online courses. As the program prepares to move into its second phase, video teleconferencing, we are actively promoting and preparing faculty and students to become involved. For faculty, in particular, special on-camera skills are required. We are training and equipping faculties to utilize the video teleconferencing medium. In addition to this, our online and web enhanced courses are ongoing.

Table 7 gives the overview of the distance learning process at both institutions.



Table 7: Side-By-Side Comparison of the Process for the Effectiveness of the  
Implementation Process of Distance Learning at the Public and Private HBCUs

<b>Process</b>	<b>Public</b>	<b>Private</b>
Decision Makers (policy makers, organizational structure)	Director	Director - Task Force
	Associate Vice President - Distance Education Committee	Provost
	Vice President Academic Affairs	Vice President Academic Affairs
	President of University	
Funding Sources (faculty development, training, infrastructure, personnel)	States Grants	Title III
	Grants	Tuition and Fees
	Continuing Education	GRA Grant
	Departmental Budget	Lilly Foundation
	Remote Location Grants	UNCF

Table 7 (continued)

Process	Public	Private
Instructional Technology Model (method of delivery of instruction)	Interactive Compressed Video	One-way and Two-way Video
	Web Based	Web based
	ITV – Cable link	One-way and Two-way Audio
	Interactive Video Classroom	Teleconference Video
	Telecommunication Access	Internet/E-Mail
	Internet/E-Mail	Telephone
	Video Conferences	Voicemail
	Virtual Library	
	Virtual Bookstore	
	Telephone	
Voicemail		
Instructional Development	Development Stages	Eduprise

### Distance Instructors View and Quotes

Six major themes emerged from analysis of the data. The emerged themes impact specifically on the effectiveness of planning and management of distance course development. The major themes are: (1) Faculty workload, (2) Compensation, (3) Faculty Development, (4) Support, (5) Assessment, and (6) Instructional development and Instructional Technology.

#### Faculty Workload

Most faculty participants agreed that designing distance courses takes extra time to prepare compared to traditional course (see Table 8). One faculty from the private institution said “Preparing for distance learning classes took a significant amount of time, more than traditional. More time is required to update the web site resources and all materials had to be in electronic form and posted on the course site.” Another instructor from the public institution stated, “My workload wasn’t adjusted. It’s more work than designing an in-class course.” Most faculty from both institution agreed that designing courses for distance delivery was carried out in addition to their regular teaching assignments, which leave little or no time for research or publications. According to one distance instructor, the first time teaching the distance learning course was a larger commitment than the first time teaching the traditional course. One distance instructor from the public institution said, “I had to be very prepared with lectures that would fit exactly in a fifty minute time frame. I had to be sure my slides were goods ones. I had to be aware of my very varied audience and had to anticipate questions.”

### Compensation

Recognition of developing or teaching in distance delivery course is included in the criteria for tenure and promotion said one distance instructor from the private institution. From the private institution, 100 percent said that distance learning activity was fully recognized as a priority for promotion and tenure purposes, but no monetary compensation included for teaching online course. From the public institution, 40 percent said that they are not compensated for teaching distance learning courses (see Table 8). From the public institution, 60 percent of the distance instructors said they received some kind of stipend for developing distance learning courses, the stipend ranges from \$2,000 to \$3,000 for one course depending if is for the Regent Online Degree program or the institution. Teaching an online course is not considered for promotion or tenure. According to one distance instructor from the public institution, “In our institution, teaching distance courses is not part of criteria for tenure and promotion but the institution is proposing reimbursement for faculty for \$2,000 stipend and release time.”

### Faculty Development

Most distance instructors said they received workshops in online course development, training, and technical support. Distance instructors from both institutions said they have available resources to help them design an effective online course. From the public institution, 80 percent of the distance instructors said the source of faculty development comes from different workshops inside and outside the institution and the Regent Online Degree Program (RODP) also provide workshop (see Table 8). One

instructor stated, “Being part of the Reagent Online Degree program affords us more faculty development.” All faculties from the private institution said they receive ongoing training in developing online courses and in presentation of online courses. One distance instructor stated, “We have expert faculty that are mentors to us who are novice in instructional development. This helps make developing and preparing online courses doable. These mentors work with us individually or in a group.”

### Support

From both institutions, 90 percent of distance instructors said they received enough support during and after course development, or at any time they needed the support (see Table 8). “Whether technical support or any other kind support is always available for the distance instructor,” said one distance instructor from the private institution. The sentiment echoed by a majority of the participants was that they receive support from the administrators of distance learning and from the institution as a whole. The institution provided support resources such as: help line, technical support staff, seminar/class, and distance learning office support. Some faculties indicated that they would have liked more technical support for print-based courses including service providers and virtual resources at the university. Some distance instructors said the support they received was not enough. One faculty stated, “The little technical support received has been by far the major shortcoming/frustration with the program. The support consists mostly of everyone involved technologically blaming everyone else for problems when the system goes down.”

### Assessment

Some of the faculties indicated that as part of the online course, they have online assessment that they use in assessing their learners' performance. One faculty stated, "We use an evaluation tool in assessing the assignment and giving grades." About 80 percent said they employ multiple choice questions as criteria to grade the distance learner, and 60 percent said they employ other testing methods such as papers and essays to evaluate the learners (see Table 8). According to the public institution distance instructor, distance learning was heavily weighted toward multiple choice testing of performance; whereas, in traditional courses performance was evaluated more on critical thinking and essay/writing skills. Another distance instructor from the same institution said, "I seem to be more test dependent in the classroom and less creative, whereas now I've become more creative and I feel more valid in my evaluation methods by limiting "memory" testing." One distance instructor from the private institution stated that quizzes, homework assignments and semester-end project are used in the assessment of the distance learner. According to another instructor "One has to make the assignments interesting for the students to keep their interests alive in online course(s)."

### Instructional Development and Instructional Technology

All distance instructors agreed that designing distance courses was time consuming. According to one distance instructor at the public institution, to design an effective online course, one has to follow the design steps such as: determining the need for instruction, establishing instructional goals and objectives, creating a content outline,

reviewing existing materials, organizing and developing content, selecting and developing materials and methods, developing an evaluation strategy for program and learners, collecting and evaluating data, and revising courses. These steps have to be done thoroughly to produce an effective distance learning program. Most of the work should be done in advance; however, some continuous updating of material is necessary and unavoidable. Some instructors said they have the option of teaching online courses that was designed by another faculty member. Of the faculties surveyed, 80 percent of the said they designed their own online courses, and 20 percent said they taught courses that were designed by someone else (see Table 8).

Deciding on what instructional technology tools (delivery method) to use depends on the models/medium of distance learning the institution has available for the distance learning program. The various distance learning models differ not only in the types of technologies that are used, but also in the locus of control over the pace and place of instruction. In some models, like interactive delivery systems, the institution and the faculties have primary control, as is the case in a traditional classroom environment. The faculties use interactive delivery systems such as audioconferencing, compressed videoconferencing (dial-up), audio publishing, and audiographics. One instructor stated, “Regardless of what models we use, we have issues such as logistical support, student support, and faculty support.” From both institution, 80 percent of distance instructors agreed that the delivery methods they use for their learners are effective delivery method, while 20 percent agreed that better delivery methods could be employed to deliver effective distance learning program (see Table 8).

**Table 8: Percentages of Responses to Research Questions Regarding Instructional Development, Instructional Technology (models), Faculty Development and Support, Compensation, and Assessment**

		<b>%Yes</b>	<b>%No</b>
<b>Question: Have you taught equivalent courses for on-campus classes?</b>			
Public Distance Instructors	N = 5	80	20
Private Distance Instructors	N = 5	80	20
<b>Question: Did you find any difference between the preparation time required for your distance education versus traditional classes?</b>			
Public Distance Instructors	N = 5	80	20
Private Distance Instructors	N = 5	80	20
<b>Question: Were you given skills and tools to develop your distance learning course(s)?</b>			
Public Distance Instructors	N = 5	80	20
Private Distance Instructors	N = 5	80	20
<b>Question: Were you compensated, given release time or otherwise rewarded if the distance learning preparation time exceeded traditional preparation time?</b>			
Public Distance Instructors	N = 5	60	40
Private Distance Instructors	N = 5		100
<b>Question: Was the technical support provided in conducting your distance learning course(s) sufficient?</b>			
Public Distance Instructors	N = 5	80	20
Private Distance Instructors	N = 5	80	20
<b>Question: Did you require students to come to the campus (or elsewhere) at least once during the course to meet with you as a group?</b>			
Public Distance Instructors	N = 5	80	20
Private Distance Instructors	N = 5	80	20
<b>Question: Did your distance learning students have regular access to an adequate library of print materials?</b>			
Public Distance Instructors	N = 5	80	20
Private Distance Instructors	N = 5	80	20



Table 8 (continued)

		%Yes	%No
Question: Did you employ the same criteria to grade students in your distance learning course as in your traditional classroom?			
Public Distance Instructors	N = 5	80	20
Private Distance Instructors	N = 5	80	20
Question: Did your institution provide satisfactory technical support to students in the distance learning course(s) you taught?			
Public Distance Instructors	N = 5	80	20
Private Distance Instructors	N = 5	80	20
Question: Did you employ different delivery methods (one-way audio/visual, two-way audio/visual, one-way video, on-line/web-based/Internet, asynchronous or real time, desktop video conferencing) for your distance learning program?			
Public Distance Instructors	N = 5	100	0
Private Distance Instructors	N = 5	100	0

N = Number of participants (distance instructors) from each institution

### Distance Learners View and Quotes

Four major themes emerged from analysis of the data. The emerged themes impact specifically on the effectiveness of how distance learners are assessed and supported in the distance learning program. The major themes are: (1) Learners' Assessment, (2) Instructor's Availability and Support, (3) Technical support, and (4) Administrative Support

### Learners' Assessment

The majority of distance learners felt that the assessment method employed in

distance learning program is appropriate. The distance learners from the public institution said while learning by web-based instruction, their instructors use different method to assess their competency and knowledge. The assessment method such as: essay exam, short answer exam, true/false questions, and multiple choice questions. About 60 percent of the learners said the assessment method used for their online courses has been mostly multiple-choice examination, and it had been appropriate for the distance learning course. One learner said, “The assessment method varies depending on the course and the instructor.” About 40 percent said essay exam has been used more frequently and appropriate for distance learning courses they have taken. Another learner said, “Essay exams show if you have a true meaning of the material.” The private institution distance learners said only three methods of assessment are employed for the online courses: true/false, multiple choice and fill-in-the-blank examinations. About 99 percent of the distance learners said true/false and multiple choice assessments are used for all of their on-line courses. One percent said fill-in-blank method is employed as method of assessment. One learner said, “I believe the methods employed to assess us is very appropriate for the online courses” (see Table 9).

### Instructor Availability and Support

The teaching style of the distance instructor is different from traditional classroom teaching style. The instructor is usually aware of every learner’s computer ability and the instructor comes to the learner’s rescue when a problem arises. The delivery method the instructors used in online course delivering is available and accessible to the learners.

Taking online courses has been easier because the instructors tailored their teaching method for each learner learning style and using appropriate delivery method said one learner from the public institution. Another learner from the same institution said, “Some teachers that cannot adjust to different learning styles or use technology in the traditional classroom should not be allowed to teach online courses because a lot of adjustment needs to be made for distance learners with different learning styles and different delivery methods must be employed.” One learner said, “We receive regular communication from the distance instructor through electronic mail and necessary support on assignments. The instructor usually keeps us apprised of how we are doing in the online course on a timely basis.” From the public institution, 90 percent of the students said they receive adequate support from their instructor in their distance learning courses (see Table 9).

One learner from the private institution said, “The distance instructors customized the online course based on the learner’s problem areas.” Another learner said, “The instructor acts as a coach and guides in his or her efforts to give us the necessary support we need with the online courses.” Yet, another learner echoed the same sentiment by saying that the support they receive is different from the traditional classroom support. The distance instructor makes himself or herself available to us anytime of the day by providing us with telephone number and e-mail address for individual, private discussions. The distance instructors are able to communicate with us electronically in a timely manner in the absence of visual and oral cues.” One distance learner said, “I was able to talk to the instructor as often as I needed to.” From the private institution, 80

percent of the learners said they receive adequate support from their distance instructors (see Table 9).

### Technical Support

Technical supports are given from the distance learning center to the distance learners but sometimes the program server is down, which makes it impossible to turn in assignments on time. One learner from the public institution said, “The administration of the distance learning program needs to take online course so that they can witness first hand what kind of technical problems the distance learners encounter, and how and when it gets resolved.” Even when we run into technical difficulty, help is always a phone call away. Overall, 90 percent said they receive adequate technical support from their distance learning center.

The distance learners at the private institution also said they received adequate technical support but sometime they have to come on campus to get a solution to their technical problem or use the facility. Overall, 80 percent from the private institution said that the technical help they received was adequate from the instructor and the technical support staff (see Table 9).

### Administrative Support

Administrative support has been appropriate in terms of academic advising and non-academic matters. Appropriate and accurate information in regard to advisement without going on campus have been received on timely manner. Distance learners get advisement by telephone e-mail, and sometimes periodic on-site advising at off-campus

locations. This helps because distance learners do not have to go on campus for advisement. The access to authoritative sources of information about non-academic matters is made available online. One distance learner from the public institution said, “As distance learners, we are given printed materials to inform us as to whom to contact about specific types of questions or concerns, and resources are made available online for us to be able to access off-campus.”

Another distance learner from the private institution said, “The distance learning center has been able to help resolve both academic and non-academic matters.” About 80 percent from the public institution and 80 percent from the private institution indicated that they received adequate administrative support (see Table 9).

Table 9 Percentages of Responses to Research QuestionsRegarding Assessment and Technical Support

		<b>%Yes</b>	<b>%No</b>
<b>Question: Is this your first distance learning course?</b>			
Public Institution Distance Learner	N = 10	40	60
Private Institution Distance Learner	N = 10	10	90
<b>Question: Were course objectives met?</b>			
Public Institution Distance Learner	N = 10	100	
Private Institution Distance Learner	N = 10	100	
<b>Question: Is the assessment method used is appropriate for the distance learning course(s) you are or have taken?</b>			
Public Institution Distance Learner (Multiple Choice)	N = 10	60	40
(Essay)		40	60
Private Institution Distance Learner (Multiple Choice)	N = 10	90	10
(Essay)		10	90
<b>Question: Was your distance instructor available and assessable?</b>			
Public Institution Distance Learner	N = 10	90	10
Private Institution Distance Learner	N = 10	80	20
<b>Question: Did you receive adequate support from your instructor for your distance learning courses?</b>			
Public Institution Distance Learner	N = 10	90	10
Private Institution Distance Learner	N = 10	80	20
<b>Question: Did you receive adequate technical support from your institution for your distance learning courses?</b>			
Public Institution Distance Learner	N = 10	90	10
Private Institution Distance Learner	N = 10	80	20
<b>Question: Has the overall support you received from your distance learning center has been appropriate?</b>			
Public Institution Distance Learner	N = 10	80	20
Private Institution Distance Learner	N = 10	80	20

N = Number of participants (distance learner) from each institution.

### Summary

This chapter highlights the data examined from the directors of distance learning programs, distance instructors, and distance learners from both institutions. The data collected from both universities were compared in terms of the implementation process of distance learning programs and related to the twenty research questions (see Tables 6-9). Moore and Thompson (1990) point out that effective distance learning programs begin with careful planning and a focused understanding of course requirements and students' needs. They further stated that successful distance learning programs rely on the consistent and integrated efforts of students, faculty, facilitators, support staff, and administrators. The themes that emerged from the data were mission, decision makers, organizational structure, policy, funding sources, instructional technology model, instructional development, and assessment. The examined data provided insight into the effectiveness of the implementation process of the distance learning program at both institutions.

## CHAPTER VI

### FINDINGS, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

This chapter presents the outcome of the research study into four sections: findings, conclusions, implications, and recommendations.

The purpose of the study was to investigate the effectiveness of the implementation process of distance learning programs at two historically black colleges and universities: a comparative study. The study examined the implementation process including the policy, funding, instructional technology and instructional development.

Chapter I presented the introduction of the study, the research questions and provided relevant facts that were significant to the study. The selected factors were identified along with the research questions that guided the study.

Chapter II reviewed the literature related to the effectiveness of the implementation process of a distance learning program. The reviewed literature examined: the historical perspectives of distance learning; instructional technology delivery methods; the process of developing and implementing distance learning and instructional technology; and historically black colleges and universities and technology. The literature addressed the effective practices of distance learning programs.

Chapter III presented the theoretical framework for the study as it relates to the relationship among the selected factors leading to an effective implementation of distance



learning programs. There were four theories that guided the study: (1) policy analysis theory, (2) distance learning environment theory, (3) designing distance learning courses, and (4) distance learning implementation process theory. The effectiveness of the implementation process of distance learning programs was linked by four selected factors: (1) decision makers, (2) funding, (3) instructional technology model, and (4) instructional development.

Chapter IV presents the methodology and procedures used for examining the effectiveness of implementation process of distance learning program at two HBCUs. A qualitative methodology was used to examine the effectiveness of the implementation process of distance programs at two historically black universities. An interview guide was used to interview directors of distance learning programs and questionnaires were used to gather data from the distance instructors and distance learners. This qualitative investigation was conducted and analyzed. Narrative and visual presentations were categorized, and detailed descriptions were made concerning the effectiveness of the implementation process of distance learning programs at these two universities.

Chapter V presented data from two directors, ten distance instructors, and 20 distance learners. These data were analyzed in terms of the research questions.

### Research Questions

The following research questions guide this study:

1. What motivated the university to embark on a distance education program?

2. Who was responsible for developing and implementing the vision of the program?
3. What is the organizational structure in place to manage the program, how was it developed?
4. How were policies developed to guide the program?
5. Who is responsible for making decisions on (a) the operation of the program (b) the direction of the program?
6. What are the goals and objectives that drive the operation of the program?
7. Is the program part of the university mission and goal?
8. What strategic plan is in place for the distance learning program, and who developed it?
9. How is the program funded?
10. How will the program be sustained?
11. Is there a faculty development program designed to train and support the development of DL courses?
12. Were the faculties compensated, given release time or otherwise rewarded for developing distance learning courses?
13. What technologies are used to deliver the courses?
14. What infrastructure does your university have to support the chosen technologies?
15. Who makes the decision on the instructional technology model?
16. What assessment is in place to measure the success of the program?

17. How are customers' satisfaction data collected and treated?
18. What challenges have been experienced in the development of the distance learning courses?
19. What challenges have been experienced in the implementation of the distance learning courses?
20. What factors enabled the implementation of the program?

Chapter VI summarized the findings of this study and presents conclusions, implications, and recommendations based on the research findings.

### Findings

Based on the research questions, the following are the findings, which resulted from the perspectives of the Directors, the distance instructors, and distance learners from both the public and private HBCUs:

1. Both institutions participate in a distance learning program, which is part of the institutions' academic affair unit. The public institution has a full distance learning program that offers credit courses and an online degree program in conjunction with other colleges and universities in the State in which the institution is located, which gives the students a lot of options. The private institution offers only credit courses to its students, and the program is considered a pilot distance learning program.
2. The private and public HBCUs have organizational structure in place to manage the distance learning program. The public institution's organizational

structure is still evolving. It has in place an associate vice president and a director of distance learning to manage and run the distance learning program.

On the other hand, the private institution is fully staffed with a director, an assistant director, an associate director, a director of faculty training and development, a technical support associate, and other technical staff support to manage and run the distance learning program.

3. Both institutions' distance learning programs have policies that deal with the program's procedure, including intellectual property policy. Intellectual policy deals with ownership and/or copyright laws concerning the reproduction of printed materials and the use and transmission of film, videotapes, recordings, performances, and other protected works.

4. The public institution's distance education committee develops policies, and procedures for implementing, maintaining, and evaluating distance learning program, and makes recommendation to the vice president of academic affairs. The distance learning policies available at the public institution include: program review and approval, DL coordination, admissions, faculty promotion, faculty evaluation, copyright, interinstitutional approval, enrollment, library/computer resources, and financial aid. The private institution's task force makes recommendation on policies and procedures to the director of the distance learning program. The private institution's policies for distance learning program include: tuition for distance learning courses, faculty incentives to develop distance learning courses, faculty compensation for teaching distance learning

courses, intellectual property (draft), faculty evaluation, accreditation guidelines for distance learning, and distance learning course approval.

5. The distance learning program, which is part of both institutions' academic unit, is under the umbrella of the academic unit affairs and is run by the distance learning center. For the public HBCUs, the operation and direction of the program comes through collaboration between the director of distance education, associate vice president of academic affairs, vice president of academic affairs and president of the university. For the private institution, the management of the program is done through collaboration between the director of distance learning and the provost of the institution.

6. Both institutions received funding from different source for the implementation of the distance learning program and for the program sustainability. The public institution receives funding from the State, different grants, and continuing education. This funding was allocated for infrastructure, training, technological tools, staffing, and compensation. The private institution receives funding from Title III, Lilly Foundation, and UNCF. The funding was allocated for distance learning program implementation, including infrastructure, faculty development, training, personnel, and compensation. The funding for sustainability of the distance learning program at both institutions comes from their primary sources.

7. Both institutions offer professional development for the faculty who are engaged in the delivery of distance learning courses. The public institution in

conjunction with the Board of Regent offers training and various workshops for the faculty. It also provides training and technical support for students and faculty. It utilizes Interactive Television (ITV) and other distance learning technology to facilitate the faculty training. The Director of distance learning at the public institution is the focal point for all technical supports, answering student questions, reviewing any complains, and elevating problems. The private institution offers training and workshops to faculty, staff, and students through its DLITE (Distance Learning Instructional Technology Education) Center. It also provides technical and administrative support for both faculty and students through the center. The institution's distance learning center partnered with Eduprise to provide training and workshops for the faculty, staff, and students. The DLITE center makes use of its experience distance instructor (MATES) as a mentor to the novice instructors.

8. The public institution provides \$3000.00 stipends for each online course and access to a laptop to those developing courses for the Regent Online Degree Program. The institution has a proposal that would allow the institution to provide extra service pay for faculty developing courses at the university; a \$2000.00 stipend and release time. The private institution does not provide stipends but encourages its faculties to develop distance learning courses to use in their tenure or promotion package. The institution has secured external funds to pay for one release course for faculty or give stipend to develop distance learning course.

9. The public institution uses Interactive Compressed Video, web-based technology and Video Independent Study Program technology to facilitate their distance learning program. The interactive compressed video is installed in a classroom. This classroom consists of cameras for broadcasting images to the instructor and the students to a receiving site, monitors for receiving both audio and video broadcast from a far site, a document camera, and a computer complete with CD Rom and full Internet access. This classroom has multimedia tools to aid instruction. The web-based technology such as Internet, e-mail, newsgroups, distribution lists, and the World Wide Web are used to access on-line or Internet courses. The institution uses the Internet via World Wide Web (www) to present the course material and allow distance learners to complete work on-line. The Video Independent Study program courses are video taped and broadcast on Public Access Channel (PBS). Learners can choose to view the programs on PBS channel or check out a copy of the entire videotape series from the Media Center. The private institution selected WebCT as the Course Management System (CMS) for distance learning program and web enhanced instruction. Other technology tools available for the facilitation of the distance learning program are: Internet, One-Way and Two-Way Video, One-Way and Two-Way Audio, Phone Lines, WebCT, and Teleconferences video.

10. There is available infrastructure to support the selected technology models and delivery modalities of the distance learning program for both the private and public institutions. The public institution has remote sites where learners can visit

to communicate with the instructor, workstations that are connected to the Main campus VAX for learners to access on-line catalog and on-line databases, online resources (bookstore and library), media center, and telecommunication access through computer modem connection. The private institution has available infrastructure, such as facility, communication capability (Internet access, phone line), networking systems (several computers networked), and several labs. All these are dedicated to facilitating the distance learning program. The infrastructure also include training facilities, which comprise of faculty resource lab, video conferencing lab, student open access lab, distance learning training lab, and training and technical resources. Also available is the Student Technical Assistance Resources (STAR), and Mentor Apprentice for Technology Education Support (MATES) to support the distance learning program. The infrastructure is still expanding to accommodate the next phase of the distance learning program.

11. The institutions have available various training and workshops for the faculty to effectively design distance learning courses. For the public institution, the faculties are taken through WebCT training and continuous training to be able to provide a wider variety of courses. Distance instructors are given appropriate training in distance learning to help them develop course syllabi suitable for distance learning program. The private institution enlisted Eduprise, the leader in designing and developing e-Learning solutions for education to provide training for faculty, staff and students. The distance instructor designed online courses



that are accessible to students, receptive to different learning styles, and sensitive to the time and place limitations of the students.

12. Both institutions have evaluation processes in place. The public institution evaluates the overall distance learning program through several processes and monitors the program for effectiveness. The distance learning courses are evaluated as follows: course is evaluated before going online; the distance instructors were evaluated based on delivery mode, course content, available resources, availability and accessibility to the instructors, and timely communication with the learners; and students performance are assessed. The departments offering the online courses were required to evaluate the course, the distance instructor, and the distance learner. The students were required to complete an online evaluation form. The private institution's distance learning center does not have any assessment plan in place to achieve the evaluation of the program or to monitor the effectiveness of the courses. Office of the Dean and the department chair monitor courses for effectiveness. The distance learning center leaves the evaluation of the program to the school or the department offering the online courses. The distance learning center acts as a facilitator for schools and departments offering distance learning courses. The students use online evaluation to evaluate the instructor and the class. The same evaluation form is used to evaluate both online courses and the traditional classroom.

## Conclusions

The findings of this study clearly identified some important elements in the effectiveness implementation process of distance learning at the two historically black colleges and universities. The following conclusions were derived from the findings of this study and are presented as responses to the research questions:

1. For both institutions, the need assessment and target audience seem to have influenced their decisions to embark on distance learning program. According to the literature, for any higher education institution to effectively embark on a distance learning program, the need assessment must be done and target audience must be identified.

2. Bredo (1994) stated that every distance learning program must have a written vision that entails the following: the purpose of the program, the direction of the program, the delivery modalities of the program, and the intended audience or community. Having a written vision statement seems to have guided the direction of the distance learning program at the private institution. On the other hand, the public institution has no written vision statement, which is more likely to hinder the direction and the effectiveness of the distance learning program.

3. According to Reed (2000), the organizational structure is critical to the success of any distance learning program. He stated that delivery of distance learning program must have internal and external dimensions. Internal involvement must come from myriad sources such as the academic affairs, continuing studies and extension, library, campus computing, faculty development, bookstore, deans, chairs, and others responsible

for direct delivery of video and audio to remote sites. The external support must come from those who handle the technology at the remote sites and those who provide logistical support. The distance learning program's traditional organizational structure at the public institution is ill equipped to meet the needs of distance based courses. This suggested that this might affect the effectiveness of the distance learning program. Having redesigned the organizational structure to fit the new realities of the distance learning program, the private institution meets the needs to support distance based courses. This suggested that this organizational structure enhanced the effectiveness of the distance learning program.

4. The public institution's distance learning program policy has a comprehensive policy that addressed the key elements that impacted the effectiveness of distance learning program. The private institution's distance learning policy failed to address key elements of distance learning program such as Library and Computer Resources.

5. According to the cited literature, actual structure of the technology has substantial impact on the organization of distance learning program. At the public institution, the extension and the continuing education divisions share responsibility of the operation of the distance learning program, which seems to have overlapping jurisdiction. For the private institution, the organizational units are involved and necessary in the operation of the distance learning program.

6. For both institutions, fulfilling the strategic academic plan of the institutions drove the effectiveness of the implementation process of the distance learning program.

7. Both institutions work within the broader institutional context of higher education to ensure that quality, accessible learning takes place in their distance learning programs.

8. The strategic plan for the private institution distance learning program is in alignment with the university's vision strategic academic plan but the public institution has no written vision statement for the distance learning program, which makes it difficult to determine if the vision is in clear alignment with the university's strategic academic plan.

9. According to *The Chronicle of Higher Education* (April 2002), the 115 historically black institutions and roughly 30 more predominantly black institutions confront the same distance learning technology challenges as other institutions as they work to train professors, improve infrastructure, and find some scarce money and time to develop online content. But the job is even harder than at mostly white institutions, because black colleges whether private or public have smaller endowments and charge their students less tuition. Both institutions have funding concerns, which suggested that the public institution, which is a State university, faces the same issues and concerns as the private institution.

10. Sustainability of the distance learning program for both institutions comes from the same source that funded the implementation of the program.

11. About 95% of the distance instructors that received adequate faculty development and training in developing distance courses from both institutions were

more likely to create learner-content, accessible to their learners and responsive to learners' needs.

12. For the public institution, the availability of compensation suggested that more faculties would be interested in teaching distance learning courses. For the private institution, the lack of compensation suggested that faculty are less enthusiastic about distance learning initiatives than those higher up the administrative ladder, and are less willing to accept distance delivery as a seamless responsibility of their jobs.

13. The public institution was more likely to give the distance instructors and distance learners different delivery options for the distance learning program. For the public institution, the most technologies utilized are fiber optics and computer technologies, which include multi-person computer interactions such as e-mail interaction with remote students, and the Internet and the World Wide Web for program delivery. The private institution used satellite based two-way audio/video systems as the predominant method of delivery of distance learning coursework, with the Internet (e.g., e-mail, web sites, listservers) as a secondary form of delivery. This suggested this form of delivery could cause a problem, particularly in scheduling and in the failure of the technology.

14. Both institutions' distance learning program infrastructure suggested that the infrastructure still is evolving and seems to be moving towards campus-wide wireless network and integrating academic and administration computing.

15. For the public institution, the appointment of the distance education committee (selected from faculty and staff) and to develop and recommend distance

learning policies and procedures to the vice president of academic affairs suggested that the coordination of instructional support services of the delivery of all distance education courses and programs decisions are consistent with the effectiveness of the implementation process of the distance learning program. The existence of the distance learning task force (selected from administrative staff) at the private institution suggested that effective decisions are made on the instructional technology model.

16. The simple fact that there exists a systematic approach to program assessment, indicated that the assessment plan is developed in order to achieve effectiveness, continuity, and sustainability of the distance learning program at the public institution. The private institution's distance learning center leaves program assessment to the department or school offering the online courses, suggesting that the effectiveness of the distance learning program is more likely not to be measured, and that the line responsibility for program assessment resides in the departments and/or school offering the courses.

17. Distance learners were more likely to be assessed for measurement and analysis of achievement of demonstrable learning outcomes as stated in the intended course goals, objectives, and competencies. The assessment method used in both institutions suggested that the competencies of the learners are been measured effectively.

18. According to the directors, challenges were experienced in the development of the distance learning program, and this suggested that overall administrative support is not at the level it ought to be for their distance learning programs.

19. The challenges both institutions experienced in the implementation of the distance learning program suggested that institutional support for the distance learning program in the form of improving technology or technical capacity (infrastructure) has not been forthcoming.

20. The various factors that enabled the implementation of the distance learning program at both institution suggested that the institutions dealt with underlying issues of learners' characteristics and need, instructional process, interactive, and delivery systems. Michael Moore, a proponent of distance learning programs asserts that successful distance learning programs rely on the consistent and integrated efforts of students, faculty, facilitators, support staff, and administrators.

### Implications

Implication for this study cannot be generalized. The findings and conclusions of this study point to the following implications:

1. It is clear that the distance learning program at these two HBCUs helped both institutions to provide greater access to higher education to individuals who cannot attend school because of family, work, distance, and/or other obligations (target audience).

Therefore, this finding should encourage other HBCUs to get involved in distance learning program or at least explore the possibilities.

2. From the findings, it is clear that distance learning program of the public institution does not have an organizational structure dedicated to the implementation and ongoing process of the distance learning program. This means that the process of the

distance learning program would be given less attention and then become less effective, which in turn would compromise the integrity of the program.

3. The fact that both institutions have funding issues in regard to their implementation and sustainability of their distance learning program, do indicate that financial resource is an obstacle for both private and public historically black colleges and universities. The institutions need to consider increasing tuition for distance learning courses. Otherwise, quality of the program would suffer tremendously.

4. Distance instructors' development, training and compensation are crucial to the success of any distance learning program. It is clear from this study that the faculty who are engaged in the delivery of distance learning courses should be given appropriate professional developmental experiences. If the institutions do not invest heavily in the development, training and compensation for their distance instructors, the program would suffer and the learner would be at a disadvantage.

5. It is clear that the students taking distance learning courses should benefit from consistency among the courses in terms of course design, communication, technology, and assessment. Without consistency, the distance learners would lag behind their peers that are enrolled in distance learning program of other institutions.

6. It is clear that historically black colleges and universities can no longer ignore the rapid growth of distance learning modalities to deliver distance learning courses. Without the availability of different modalities for learners to choose from, this would limit the learners' access to distance courses and therefore create a wider technological gap.



### Recommendations

The findings of this research study lead to the following recommendations for the effectiveness of the implementation process of distance learning program:

1. The decision makers at these two institutions should clearly specify the intention of the distance learning program without any ambiguity in their distance learning vision statement.

2. The organizational structure, reporting systems, and the financing mechanisms that were established for a traditional based delivery system are ill equipped to meet the needs and delivery requirements of asynchronous distance based courses. The institutions should create an organizational structure that would fit the realities of distance learning program, realities such as delivery modalities and infrastructure. It should be done by defining decision-making authority for the program and clarify roles and responsibilities. The public institution is under staffed and the private institution is over staffed.

3. Both institutions need to have appropriate number of staff for their distance learning program. According to the literature, organizationally, the distance learning program is supervised by the director of distance learning, who answers to the vice president for academic affairs, and ultimately to the president of the university. There are five key positions necessary for any distance learning program: the director who oversees the operation of the program, assistant or associated director who coordinates faculty development and instructional technology, distance learning technician who

oversees the technical issues, support services specialist who oversees non-technical support for both instructors and learners, and office assistance who directs the instructors and learners to appropriate channel.

4. Decision makers should establish a quality control for all distance learning programs through a joint responsibility of the academic unit offering the course and the distance learning center. This quality control should include periodic review and evaluation of course content for quality, completeness, and adherence to published course objectives.

5. The faculty evaluation form that students complete for traditional classroom courses should be modified to yield information about faculty effectiveness in a distance learning environment. There should be an evaluation form for the students and the faculty to evaluate the technical systems and the administrative support systems. There should also be an assessment plan in place to evaluate the program as a whole and to monitor the program for effectiveness.

6. The universities should explore alternative funding methods to support the distance learning program, including tuition fee rates and registration fees for distance learners.

7. The institutions must determine what training the faculty will be provided on the particular model of distance learning program and the technologies they will be using. Orientation and training should be scheduled well in advance to give the faculty sufficient time to redesign, modify, or adapt their course and assignments specifically for the new delivery mode. Faculty should also be given access to a variety of resources, such as

instructional design methodology, video production, graphics production, access to authoring tools, and other computer-based resources.

8. The traditional reward, with its emphasis on research and publication, should be redesigned for distance learning program. Both institutions should establish faculty incentives that recognize the additional time faculty might spend in training and in planning an effective distance learning course.

9. The recruitment and selection of good distance learning faculty is critical to the success of the program. It would be beneficial for the institutions to use experienced and successful distance instructors to recruit.

10. In the traditional course delivery, access is available to campus-based resources such as library holdings, science laboratories, and computer software and hardware. In distance learning program, it is essential that faculty and administrators work together to think about how to accomplish the academic and non-academic objectives when students may not have ready access to all the campus-based resources.

11. The method of delivery of distance learning program coursework for the private HBCUs needs to be updated by creating a backup system for the network. This is also a recommendation for future HBCUs that might be interested in implementing distance learning program.

12. The institutions should adapt a standard student assessment process for the distance learning program that would address learning outcomes in terms of content mastery and increased learning skills.

13. Further research should be done to explore the dropout of distance learners compare to traditional students, looking at the various causes.

14. Further research should be done on what role the administrators play in the success or failure of a distance learning program at historically black colleges and universities.

### Summary

This chapter provided findings, conclusions, implications, and recommendations. The study investigated the effectiveness of the implementation process of distance learning programs at two historically black colleges and universities using the responses from the directors' interviews, distance instructors' questionnaire, and distance learners' questionnaire.

In Chapter I included the research questions that provided the factors that influenced the investigation. Chapter II related to the review of the distance learning program and historically black colleges and universities. Chapter III presented the theoretical framework: policy analysis theory, distance learning environment theory, designing distance learning courses, and distance learning implementation process theory. In Chapter IV, the methodology and procedures were presented. Chapter V analyzed the data collected from the interviews and questionnaires.

This study is a comparative study involving the effectiveness of the implementation process of distance learning programs at one private and one public HBCU. Based on the literature, independent variables, and dependent variable, both institutions' distance

learning programs were implemented less effectively than desired. Out of all the factors in this study, funding was not the most relevant factor in the effectiveness of the implementation process of distance learning program. Purchasing and maintaining appropriate equipment, training instructors to use it effectively are necessary conditions, but not sufficient in themselves to assure effective distance learning program implementation. The other factors as set forth in the literature (careful planning, focused understanding of course requirements, students needs, consistent and integrated efforts of students, faculties, facilitators, support staff, and administrators) must be involved to ensure effective implementation process of distance learning program.

## APPENDIX A

### Researcher's Letter Requesting to Conduct Research Interview

Dear Distance Learning Director,

My name is Shakirat Mumuney-Tilghman. I am a student at Clark Atlanta University, in the Department of Educational Leadership where I am working on my doctoral degree in Educational Leadership.

I am currently working on my dissertation and my research topic is "The Effectiveness of the Implementation Process of Distance Learning and Instructional Programs at Two HBCUs". Your institution, Tennessee State University, is one of the two HBCUs that I have chosen to investigate. I wish to examine the process you undertook in developing and implementing distance learning and instructional technology program.

I am writing this letter to ask for your permission to interview you and your staff about process, procedures and practices related to the development of distance learning. Additionally, I would like to interview the distance instructors and to administer a questionnaire to some of the distance education learners. I have attached a sample of the interview questions and a questionnaire for your preview.

Please feel free to contact me at any time at 404-983-1651 or 770-981-8762 with questions or comments regarding this research. You can also contact my advisor, Dr. Trevor Turner at Clark Atlanta University, School of Education, Educational Leadership Department at 404-880-8980.

Thank you for your consideration and kind assistance.

Sincerely,

Shakirat Mumuney-Tilghman, Doctoral Candidate  
Clark Atlanta University  
Department of Educational Leadership  
James P. Brawley Drive  
Atlanta, GA 30314

## APPENDIX B

### Directors' Interview Guide

1. How long have you been involved in Distance Learning Program at the University?
2. What is the mission of the Distance Learning Center?
3. What motivated the University to embark on Distance Learning Program?
4. Who is responsible for making decisions on the operation of the program and the direction of the program?
5. What is the organizational structure in place to manage the program, how was it developed?

6. How were policies and procedures developed to guide the program?
7. What strategic plan is in place for the program, by whom was it developed, and who has the overall responsibility for its implementation?
8. How is the program funded?
9. How will the program be sustained?
10. What challenges have been experienced in the development and implementation of the program?
11. What are the challenges that are currently impacting the program and how are they being addressed?







23. What is the overall feeling of the administration on distance learning program?

24. What is unique about your institution's distance learning courses?

25. Do you meet with other distance learning professionals in order to exchange information?

**Final Comment**

## APPENDIX C

### Distance Instructors Questionnaire

**Instruction:** Please answer all questions

1. Indicate the mode(s) of distance education you have employed:
  - One-way audio/visual (example, telecourses)
  - Two-way audio/visual (real-time, Interactive Television (ITV))
  - Two-way audio, one-way video
  - On-Line/web-based/Internet, asynchronous or real time
  - Desktop video conferencing, real time or asynchronous
  - Asynchronous desktop conferencing combined with CD-ROM
  - Other (Please specify)
  
- 2a. Name the course(s) that you teach or have taught online:
  
  
- 2b. Number of credits for each course taught:
  
  
- 2c. Level(s):
  - Freshmen \_\_\_\_\_
  - Sophomore \_\_\_\_\_
  - Junior \_\_\_\_\_
  - Senior \_\_\_\_\_
  - Graduate Level \_\_\_\_\_
  - Other \_\_\_\_\_
  
3. Have you taught equivalent courses for on campus classes?
  - Yes
  - No

4a. Did you find any difference between the preparation time required for your distance education versus traditional classes?

Yes

No

If yes, please describe:

4b. Were you compensated, given release time or otherwise rewarded if the distance education preparation time exceeded traditional preparation time?

Yes

No

Please describe:

5a. How many students were in your largest class taught at a distance?

Less than 20

20-50

51-100

More than 100

N/A

5b. In conducting your distance education course, please tell us what methods you used to maintain personal interaction between (a) yourself and the students and (b) the students with each other? Check all that apply.

Email

Discussion Groups online/web postings \_\_\_\_\_

Audio/Video Conferencing \_\_\_\_\_

Campus Visits \_\_\_\_\_

Onsite Visits \_\_\_\_\_

Telephone \_\_\_\_\_

Mail \_\_\_\_\_

Fax \_\_\_\_\_

Other \_\_\_\_\_

5c. Did you require students to come to the campus (or elsewhere) at least once during the course to meet with you as a group?

Yes

No

6a. Did your distance education students have regular access to an adequate library of print materials?

Yes

No

6b. If not, how did you handle the issue of getting instructional and research materials to your students? Describe in what ways, if any, you were limited.

- 7a. Were there any differences in the persistence/dropout rates of students in distance vs. traditional courses?  
Yes  
No
- 7b. If there is a problem with persistence, do you have any thoughts on what causes it or how to combat it?
- 8a. What criteria did you employ to grade students in your distance education course (papers, multiple choice testing, essays, etc.)?
- 8b. Does this differ from the criteria you might have used in a traditional classroom course?  
Yes  
No  
If yes, please describe.
- 9a. If tests were given at the end of the course, were students in a proctored environment?  
Yes  
No
- 9b. Do you have any concerns/recommendations about security related to papers, tests, etc., in a distance learning environment?  
Yes  
No  
Please describe.
10. Have any questions about ownership of intellectual property arisen concerning your work in distance education?  
Yes  
No  
If yes, please explain.

- 11 a. On the average, how did your students perform compared to students taking similar classes through traditional means?
- Better
  - Worse
  - About the Same
- 11b. If there is a difference, to what do you attribute it?
12. Did you notice that some particular kinds of students perform better than others in a distance education mode?
- Yes
  - No
  - Please explain:
- 13a. What kind of technical support were you provided in conducting your distance education course(s)? Check all that apply.
- Help Line
  - Technical Support Staff
  - Seminar/Class
  - Distance Ed office
  - Minimal
  - None
  - Other
- 13b. Was it sufficient?
- Yes
  - No
  - No Comments.
- 13c. Did your institution provide satisfactory technical support to students in the distance learning course(s) you taught?
- Yes
  - No

14. If you have an opportunity to teach courses through distance education again, would you want to do so?

Yes

No

Please explain.

15. In your opinion, how much of an undergraduate's coursework could be taught by distance education without impairing the educational experience?

76-100%

51-75%

26-50%

0-25%

Other

Please explain.

16. Are there any other important points to be made about good practices, practices to avoid, etc. in distance education that you have not addressed in your other answers?



APPENDIX D

Distance Learner Questionnaire

**Instructions** The purpose of the questionnaire is to help educators understand students' ideas and expectation about web-based instruction. Please read each question below and respond.

**Demographic**

Please answer the following:

Gender: Female Male

Age:

Level in College

Freshman \_\_\_\_\_

Sophomore \_\_\_\_\_

Junior \_\_\_\_\_

Senior \_\_\_\_\_

Graduate \_\_\_\_\_

Other (please specify) \_\_\_\_\_

School/Major \_\_\_\_\_

**Instruction:** Please answer the following questions

1. How would you describe the usual method of teaching and learning within your school? Chose from a or b below, or write in your own description of how classes are traditionally taught in your school.

a) Traditional teacher-centered classes where the teacher lectures and student listens.

b) Student-centered where the teacher adapts the learning activities to fit the students' needs.

Other (please describe)

2. Do you prefer to learn by yourself, in a small group of two or three, or in a larger group of four or more?

3a. Is this your first class by web-based instruction?

Yes

No

If no, how many other classes have you taken by web-based instruction?

Describe how your previous web-based classes were similar and different from classes taught in the traditional way in your school.

3b. If your answer to question 3a is "Yes," describe how you think learning by web-based instruction will be similar or different from classes taught in the traditional way in your school?

4. Do you expect to have exams while learning by web-based instruction? If yes, what kind of test do you anticipate, for example, essay exam, true/false questions, etc.

5. Was the assessment method used for your web-based instruction appropriate for the course or course?
6. I prefer my reading material to be:
- a) Online
  - b) Paper based
- Other (please describe)
7. Describe what you expect from your instructors in this web-based class. For example, do you think their teaching style will be similar to what you are used to?
8. Please tell how you expect your responsibility, as a student in this web-based class will be similar and/or different from your responsibilities as a student in a traditional class in your school.
9. Please list ways that your relationship with classmates in this web-based class will be similar and/or different from your relationship with classmates in a traditional class in your school.

10. By the end of this class, I expect to have learned: (choose one)

- a. more than if the same class was taught in a traditional style in my school
- b. less than if the same class were taught in a traditional style in my school
- c. about the same amount if this class were taught in a traditional style in my school

Other (please describe)

**Thank you very much!**

## REFERENCES

Alliance to help bridge the digital divide between historically black colleges and universities and other higher education institutions in this country. (2000, Dec. 7)

Available: <http://explorers.tsuniv.edu/tsuaol/default.htm>.

Atwong, C.T. et al. (1996). How collaborative learning spans the globe.

Marketing News, 30 Aug. Available:

[http://usdla.org/html/journal/FEB02\\_Issue/article05.html](http://usdla.org/html/journal/FEB02_Issue/article05.html).

Barron, A. & Orwig, G. (1993). New technologies for education. Englewood, CO:

Libraries Unlimited. Available: <http://www.aace.org/pubs/ijet/v2n1.html>.

Berge, B.L. (2002). Qualitative Research Methods for the Social Sciences.

Needham Heights, MA: Pearson Education Company.

Berge, Z. L. (1998). Barriers to online teaching in post-secondary institutions:

Can policy changes fix it? Online Journal of distance learning administration. 1(2).

Available: <http://westga.edu/~distance/jmain.html>.

Bogdan, R.C. & Bilken, S.K. (1998) Qualitative Research in Education: An

Introduction to Theory and Methods. MA: Allyn and Bacon.

Borg, W.R & Gall, M .D. (1983). Educational Research: An Introduction. New

York, Longman.

Bredo, E. (1994). Reconstructing educational psychology: Situated cognition

and Deweyan pragmatism. Educational Psychologist, 29 (1). Available:

<http://www.aace.org/pubs/ijet/v2n1.html>.

Cambre, M.A. (1991). The state of the art of instructional television: Instructional technology, past, present and future. Englewood, CO: Libraries Unlimited. Available:

<http://www.aace.org/pubs/ijet/v1n4.html>.

Cordell, V (1996). Application of group decision support systems in marketing education. Journal of Marketing Education 18(1).

Available: [http://usdla.org/html/journal/FEB02\\_Issue/article05.html](http://usdla.org/html/journal/FEB02_Issue/article05.html).

Dick, W. & Carey, L. (1990). The systematic design of instruction, (3<sup>rd</sup> ed.). Glenview, IL: Scott, Foresman, and Company. <http://uidaho.edu/evo/dist3.html>.

Dolence, M. G. & Norris, D. M. (1995). Transforming higher education: A vision for learning in the 21<sup>st</sup> century. Society for College and University Planning. Available:

[http://www.cren.net/~jboettch/jvb\\_cause.html](http://www.cren.net/~jboettch/jvb_cause.html).

Eastmond, D. V. (1995). Alone but together: Adult distance study through computer conferencing. Cresskill, NJ: Hampton Press Inc. Available:

[http://www.aln.org/alnweb/journal/Vol5\\_issue2/Brown/Brown.htm](http://www.aln.org/alnweb/journal/Vol5_issue2/Brown/Brown.htm).

Eastmond, N. (1994). Assessing needs, developing instruction, and evaluation results in distance education. In B. Willis (Ed.), Distance education: Strategies and tools (pp. 87 – 106). Englewood Cliffs, NJ: Educational Technology.

Filipczak, B. (1995). Putting the learning into distance learning. Training 32(10). Available: <http://ericir.syr.edu/plweb-cgi/obtain.pl>.

Garrison, D.R. & Shale, D. (1990). Education at a distance: From issues to

practice. Malabar, FL: Krieger.

Gellman-Denley, B. & Fetzner, M.J. (1998). Asking the really tough questions: Policy issues for distance learning. [Online] Journal of Distance Learning Administration. Available: <http://westga.edu/~distance/jmain.html>.

Gustafson, K.L. & Powell, G.C. (1991). Survey of instructional development models with an annotated. ERIC bibliography (2<sup>nd</sup> ed.). Syracuse, NY: ERIC Clearinghouse on Information Resources. Available: <http://uidaho.edu/evo/dist3.html>.

Keegan, D. (1986). The foundations of distance education. London: Croom Helm. Available: <http://www.aace.org/pubs/ijet/v1n4.html>.

Kelley, H. (1991). Distance learning: History, current status and trends. THE Journal 18(1). Available: <http://lbcc.cc.or.us/spoccd/dentist.html>.

King, J. W. et al. (1999). Distance education policy in post-secondary education: Nebraska as a case study. In proceedings: 15<sup>th</sup> Annual conference on distance teaching and learning. University of Wisconsin, Madison. Available: <http://www.westga.edu/~distance/king32.html>.

Lever, J. C. (1993). Distance education resource guide: League for innovation in the community college. Laguna Hills, CA.

Mady, D. (1982). Benefits of Qualitative and Quantitative methods in program evaluation, with illustrations. Educational Evaluation and Policy Analysis, 4, 223-236. Available: <http://trochim.human.cornell.edu/gallery/bowen/hss691.htm>.

Merriam, S. B. (1988). Case study research in education: A qualitative approach. San Francisco, CA: Jossey-Bass Publishers. Available:

<http://www.tgsa.edu/online/cybrary/case1.html>.

Merriam, S. B. (2001). Qualitative research and case study applications in education. San Francisco, California: Jossey-Bass.

Miller, C. (1998). A socio-technical systems approach to distance education for professional development. Open Learning June. Available:

<http://www.unisa.ac.za/dept/buo/progressio/23%281%292001/kizitor.html>.

Moore, M.G. (1972). Learner autonomy: The second dimension if independent learning. *Convergence*, 5(2) Available: <http://www.fae.plym.ac.uk/tele/vidconf1.html>.

Moore, G. (1990). *Contemporary issues in American distance education*. New York: Pergamon Press.

Moore, M. G. & Kearsley, G. (1996). Distance education: a system view. Washington D.C.: Wadsworth Publishing Company. Available:  
<http://www.westga.edu/~distance/ojdla/winter44/prestera44.html>.

Moore, M.G. & Thompson, M.M. (1990). The effects of distance learning: A summary of the literature. University Park, PA: The Pennsylvania State University, American Center for the study of distance education. Available:  
<http://www.uidaho.edu/evo/dist1.html>.

Natesan, M. & Natesan, N. C. (1996). The Internet marketing tool in the classroom. Cincinnati OH: Southwestern College Publishing. Available:  
[http://www.usdla.org/html/journal/FEB02\\_Issue/article05.html](http://www.usdla.org/html/journal/FEB02_Issue/article05.html).

National Center for Education Statistics. (1999). Distance education at postsecondary education institutions: 197-98. Available



<http://nces.gov/pubsearch/pubsinfo.asp>.

National Telecommunications and Information Administration's (NTIA). (1997).

What is digital divide? Available:

[www.learnlink.mcmaster.ca/Sorokin1/Digital-Divide- Sorokin-6.pdf](http://www.learnlink.mcmaster.ca/Sorokin1/Digital-Divide-Sorokin-6.pdf).

Neo, W. K. & Eng, C. S. (2001). Getting it right: Enhancing online learning for higher education using the learner-driven approach. Singapore Management Review 23(2). Available: [http://www.usdla.org/html/journal/FEB02\\_Issue/article05.html](http://www.usdla.org/html/journal/FEB02_Issue/article05.html).

Patton, M. Q. (1990). Qualitative evaluation methods. (2<sup>nd</sup> ed.) Thousand Oaks, CA: Sage. <http://www.tgsa.edu/online/cybrary/case1.html>.

PBS Adult learning service. (1994). Are Telecourse for me? The Agenda. Available: [http://www.cod.edu/dept/CIL/CIL\\_Surv.htm](http://www.cod.edu/dept/CIL/CIL_Surv.htm).

Pearson, V.W. (1989). Critical factors considered in the planning for the administration and implementation of long-distance interactive video instruction.

(Doctoral dissertation, Oklahoma State University, Stillwater).

Available: <http://ericir.syr.edu/plweb-cgi/obtain.pl>.

Porter, D. (1994). New directions in distance learning: Interim report. Burnaby, BC., Canada. Available: <http://www.epi-center.net/journals/admin/601sherry.html>.

Press Release. (1999) New education projects promote distance learning for college. Available: <http://www.ed.gov/PressReleases/06/1999/distep.html>.

Rumble, G. (1986). The Planning and Management of Distance Education. Croom Helm, London. Available:

<http://www.macul.org/newsletter/1992/novdec92/going.html>.

Salomon, G. (1991). Transcending the quantitative/qualitative debate: The analytic and systemic approaches to educational research. Educational Research 20 Available: <http://www.unisa.ac.za/dept/buo/progressio/23%281%292001/kizitor.html>

Salomon, G. (1996). Studying the novel learning environments as patterns change in Vosniadou, S, De Corte, E. Glaser, R & Mandl, H. (eds) International perspectives on the design of technology-supported learning environments. Mahwah, NJ: Erlbaum.

Schamber, L. (1988). Delivery systems for distance education. ERIC Document Reproduction. Available: <http://www.ace.org/pubs/ijet/v2n1.html>.

Schieman, E., Teare, S., & McLaren, J. (1992). Towards a course development model for graduate level distance education. Journal of distance Education VII(2). Available: <http://www.westga.edu/~distance/ojdla/summer42/care42.html>.

Schlosser, C.A., & Anderson, M.L. (1994). Distance education: review of the literature. Washington, DC: Association for Educational Communications and Technology. Available: <http://carbon.cudenver.edu/~lsherry/pubs/issues.html>.

Seibert, L. J. (1996). Using the net, e-mail in marketing education. Marketing News. Available: [http://www.usdla.org/html/journal/FEB02\\_Issue/article05.html](http://www.usdla.org/html/journal/FEB02_Issue/article05.html).

Siegel, C. F. (1996). Using the computer networks (intranet and internet) to enhance your students marketing skills. Journal of marketing education 18. Available: [http://www.usdla.org/html/journal/FEB02\\_Issue/article05.html](http://www.usdla.org/html/journal/FEB02_Issue/article05.html).

Steiner, V. (1999). What is distance education? Distance learning resource guide. San Francisco: WestEd. Available: <http://ericir.syr.edu/plweb-cgi/obtain.pl>.

The Chronicle of Higher Education. (2002). Historically black colleges grapple with online education. Information Technology. Available: <http://chronicle.com/weekly/v48/30/30a02701.html>.

U.S. Congress. (1992). Office of Technology Assessment [On-line] ([www.digitaldivide.gov](http://www.digitaldivide.gov)) Washington, D.C: U.S. Government.

U.S. Department of Commerce. (2000) Historically Black Colleges and Universities: An assessment of networking and connectivity. National Association for Equal Opportunity in higher Education & National Telecommunication and Information Administration. Available: <http://ntia.doc.gov/ntiahome/press/2000/nafeo101200.htm>.

Verdium, J.R. & Clark, T.A. (1991). Distance Education: The foundations of effective practice. San Francisco, CA: Jossey-Bass Publishers. <http://www.uidaho.edu/evo/dist1.html>.

Wagener, U. (1998). It takes a community to educate students. Heldred. Available: [http://www.findarticles.com/c\\_0/m1254/n2\\_v30/2025020576](http://www.findarticles.com/c_0/m1254/n2_v30/2025020576).

Watkins, L. & Wright, S. (1991). The foundation of American distance education: A century of collegiate correspondence study. Dubuque, Iowa: Kendall/Hunt Pub. Co.

Wedemeyer, C. (1981). Learning at the back door: Reflections on non-traditional learning in the lifespan. Madison: University of Wisconsin Press.

Williams M. et al. (1999). Distance learning: The essential guide. CA: Sage Publication.

Willis, B. (1992). Instructional development for distance education. ERIC Document Reproduction. Available: <http://www.aace.org/pubs/ijet/v2n1.html>.

- Willis, B. (1993). Distance education: A practical guide. Englewood Cliffs, NJ: Educational Technology Publications. <http://www.uidaho.edu/evo/dist1.html>.
- Willis, B. (1994). Distance education: Strategies and Tools. Englewood Cliffs, NJ: Educational Technology Publications. Available: [http://www.cren.net/~jboettch/jvb\\_cause.html](http://www.cren.net/~jboettch/jvb_cause.html).
- Wohlert, H.S. (1989). German by satellite: Technology-enhanced distance learning. Lincolnwood, IL: National Textbook Co. Available: <http://ericir.syr.edu/plweb-cgi/obtain.pl>.
- Wolcott, H. F. (1992). Posturing in qualitative inquiry: The handbook of qualitative research in education. Orlando, FL: Academic Press. <http://www.tgsa.edu/online/cybrary/case1.html>.
- Wort, A.A. (1998). Distance education and the training of primary school teachers in Tanzania. Stockholm: Gotab. Available: <http://www.unisa.ac.za/dept/buo/progressio/23%281%292001/kizitor.html>.
- Yoakam, M., & Warren, R. (1996). Distance learning: A guide to system planning and implementation. Bloomington, IN: Indiana University. Available: <http://www.outreach.uiuc.edu/hre/public/issues.pdf>.