



5-2003

A Study of the Perceptions and Attitudes Regarding Library Services Available to Students Enrolled in Online Degree Programs

Robin Felecia Blackman
University of Tennessee - Knoxville

Follow this and additional works at: https://trace.tennessee.edu/utk_graddiss



Recommended Citation

Blackman, Robin Felecia, "A Study of the Perceptions and Attitudes Regarding Library Services Available to Students Enrolled in Online Degree Programs. " PhD diss., University of Tennessee, 2003.
https://trace.tennessee.edu/utk_graddiss/1974

This Dissertation is brought to you for free and open access by the Graduate School at TRACE: Tennessee Research and Creative Exchange. It has been accepted for inclusion in Doctoral Dissertations by an authorized administrator of TRACE: Tennessee Research and Creative Exchange. For more information, please contact trace@utk.edu.

To the Graduate Council:

I am submitting herewith a dissertation written by Robin Felecia Blackman entitled "A Study of the Perceptions and Attitudes Regarding Library Services Available to Students Enrolled in Online Degree Programs." I have examined the final electronic copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Education.

Edward L. Counts, Major Professor

We have read this dissertation and recommend its acceptance:

Ralph G. Brockett, Susan E. Metros, John R. Ray

Accepted for the Council:

Carolyn R. Hodges

Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)

To the Graduate Council:

I am submitting herewith a dissertation written by Robin Felecia Blackman entitled "A Study of the Perceptions and Attitudes Regarding Library Services Available to Students Enrolled in Online Degree Programs." I have examined the final electronic copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Education.

Edward L. Counts

Major Professor

We have read this dissertation
and recommend its acceptance:

Ralph G. Brockett

Susan E. Metros

John R. Ray

Accepted for the Council:

Anne Mayhew

Vice Provost and
Dean of Graduate Studies

(Original signatures are on file with official student records)

A STUDY OF THE PERCEPTIONS AND ATTITUDES REGARDING
LIBRARY SERVICES AVAILABLE TO STUDENTS ENROLLED
IN ONLINE DEGREE PROGRAMS

A Dissertation

Presented for the

Doctor of Philosophy

Degree

The University of Tennessee, Knoxville

Robin Felecia Blackman

May 2003

Copyright © 2003 by Robin Felecia Blackman
All rights reserved

DEDICATION

This is dedicated to my parents, Edward and Alma Blackman for their patience, understanding, encouragement, support, and unconditional love during this journey. Mom and Dad please know in your hearts that I feel blessed to have both of you in my life. For as long as I can remember you have allowed me to try my wings and for that I am most grateful. Thank you for giving me the freedom to soar. I'll love you for life.

This is also dedicated to my great-grandmother, Jane Alberta Cason (1890 – 1990). She inspired me to begin this journey many, many years ago. Her words of wisdom have guided me out of the valleys and over the hills and her memory will forever stay in my heart.

ACKNOWLEDGMENTS

I wish to first give all honor and all praise to my Heavenly Father. Once again I'm in awe of His continued grace and mercy.

Thanks to my chair, Dr. Edward L. Counts, for his support and encouragement. Thanks to my committee members, Dr. Ralph G. Brockett, Ms. Susan E. Metros, and Dr. John R. Ray.

Thanks to all professional reviewers, student reviewers, and distance librarian reviewers.

I want to acknowledge my dissertation support group, Christina Goode, Jennifer Gramling, and Jamie Nelson. We all started in the program together and as we moved through the coursework and later the writing phase of the dissertation we grew closer. It became evident to me in the last days that I needed to stay in touch with these ladies because we shared a common goal. Thanks for responding to my many crazy emails.

A special thanks to Becky for understanding my priorities and Betty for challenging me to take a serious look in the mirror and make a firm commitment.

I would like to acknowledge my brother-in-law and sister, Ministers Isiah and Regina Hughes, for their continued words of encouragement and prayer as I moved through this journey. My sister always sent me back to the scriptures for strength and for that I am grateful.

Thanks to my oldest and dearest friends, Lisa and Shelia, for understanding that the phone was not my friend.

Abstract

There is a diverse population of students who will benefit greatly from a convenient, time and place-independent learning environment. Distance education provides this type of environment and addresses the many needs of adult learners and the new generation of online learners. The problem is that this environment differs from a traditional institution of higher learning and continues to bring about questions from educators related to the issue of equivalency between online and traditional degree programs, especially in terms of student support services, such as the library.

The purpose of this study was to determine the perceptions and attitudes of students regarding traditional and distance library services, determine if the outcomes resulting from the library services provided in the online degree programs were equivalent to those outcomes for on-campus programs and provide information to enhance and improve the effectiveness of online degree programs.

An online survey was conducted focusing on the perceptions and attitudes of students regarding traditional and distance library services. The results of the study indicated that overall the students were satisfied with the library resources and services available to them and the students did not perceive that the distance library services were different from the traditional library services. Possible reasons underlying this perception may be that approximately 85 percent of the students had prior college experience or had completed a degree. Therefore, students most likely were familiar with today's library services. However, institutions should remain proactive because distance education students will continue to demand and expect libraries to meet their needs. As these demands and expectations are explored new library services and resources will emerge. Also, institutions of higher learning must have a commitment to providing distance students with the same quality of education and equivalent support services as on-campus students if they expect those outside the educational arena to respect degrees obtained through this means of educational learning.

TABLE OF CONTENTS

CHAPTER	PAGE
I. INTRODUCTION.....	1
Statement of the Problem.....	6
Purpose of the Study.....	7
Research Questions.....	8
Significance of the Study.....	8
Assumptions.....	9
Limitations.....	10
Definition of Terms.....	10
Organization of the Study.....	12
II. REVIEW OF THE LITERATURE.....	14
Distance Education.....	14
Characteristics of Distance Learners.....	17
Support Services for Distance Learners.....	20
Distance Library Services.....	22
Accreditation Policies and Guidelines.....	31
Statewide Distance Library Services.....	36
Georgia.....	36
Florida.....	37
Kentucky.....	37
Case Studies and Previous Research.....	38
Summary.....	45
III. METHOD.....	47
Research Questions.....	48
Overview of Regents Online Degree Programs.....	48
Participants.....	51
Instrumentation.....	51
Pilot Test.....	52
Procedure.....	53
Data Analysis.....	56
Summary.....	57
IV. ANALYSIS OF DATA.....	58
Introduction.....	58
Demographic Characteristics.....	59
Specific Research Questions.....	62
Responses to Research Questions.....	65

Research Question 1	65
Research Question 2	66
Research Question 3	69
Research Question 4	69
Research Question 5	70
Research Question 6	73
Research Question 7	73
Research Question 8	74
Summary	77
V. DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS	78
Introduction	78
Summary of Procedures	79
Research Findings	80
Conclusions	88
Recommendations and Suggestions for Future Research	93
Summary	95
REFERENCES	96
APPENDICES	104
A Survey Instrument	105
B IRB Form	119
C Research Project Description	123
D Consent Form	124
E Responses to Open-Ended Survey Item 12	126
F Responses to Open-Ended Survey Item 13	129
VITA	131

LIST OF TABLES

TABLE	PAGE
1 Frequency and percentage of demographic characteristics of population sample	60
2 Frequency and percentage of demographic (Education) characteristics of population sample	61
3 Frequency and percentage of method of access to your Home School Library website this semester	63
4 Count and percentage of access location to library website.....	64
5 Usage and satisfaction levels of resources and services available through the Tennessee Board of Regents Virtual Library	66
6 Usage of resources and services available through Distance Library Services and Traditional Library Services.....	67
7 Levels of satisfaction between Distance Library Services (DLS) and Traditional Library Services (TLS).....	68
8 Means and standard deviations -- Computer Experience.....	70
9 Gender - Means	71
10 Occupational Status - Means.....	71
11 Educational Level - Means.....	72
12 Academic Status - Means.....	73
13 Overall perceptions - Home School Library, TBR Virtual Library	74
14 Responses to the following question: In your opinion, in what ways could the TBR Virtual Library be improved	75
15 Responses to the following question: In your opinion, what additional library resources/services should be available to online students enrolled in courses in the Regents Online Degree Programs	76

CHAPTER I

INTRODUCTION

There is a diverse population of students who can benefit greatly from a convenient, time and place-independent learning environment. Distance education provides this environment by meeting the demands of adult learners and the new generation of online learners. A distance learning environment allows, “synchronous and asynchronous communication, access to and from geographically isolated communities, multiple participation within activities, and cultural sharing of diversity and recognition of similarities among the people of our world” (Schrum, 1999, p. 12). “Distance learning reverses the social dynamic by bringing education to the student, rather than sending the student to education” (Parke & Tracy-Mumford, 2000, p. 7). Distance learning is diverse locations, dangerous liaisons, delivery limitations and expectations, and determined librarians (Swaine, 2000). However, distance education is not “a panacea for the difficulties and barriers encountered in traditional education settings, but it does provide the potential for greater service to more individuals seeking learning opportunities” (Mielke, 1999, p. 3). A recent survey administered by the National Institute for Literacy revealed that distance learning provides a means for educating and introducing new technology to the adult learner. Distance learning also brings about open access and non-dictated learning times, and requires a new set of expectations about the learning environment (Parke & Tracy-Mumford, 2000).

Distance education and educational technology is changing how institutional administrators respond to the needs of students and the educational community. A few factors that have brought on this change are the increase in distance students, the accreditation standards revised for the new population of distance students, the attention that must be given to the issue of equality and quality of education for distance students in comparison to on-campus students, and the need for instruction and assistance in terms of research and resources available through electronic means (Lebowitz, 1997). The Southern Association of Colleges and Schools (SACS) *Criteria for Accreditation* states that “an effective institution of higher education ensures that its educational programs are complemented by well-rounded support structures that stimulate the mind and encourage the total growth and development of students. A vital ingredient in this kind of support is student and faculty access to library and learning resources that not only support the educational program and appropriate research activities but also provide broad exposure to various disciplines, culture and ways of understanding” (Commission on Colleges of the Southern Association of Colleges and Schools, 1998, p. 53). They further state that the “quality, relevance, accessibility, availability and delivery of resources and services, and their actual use by students, regardless of location...must be taken into account in evaluating the effectiveness of library and learning resource support” (Commission on Colleges of the Southern Association of Colleges and Schools, 1998, p. 54).

Distance education via the Internet is changing the course delivery method in institutions of higher education across the country. Online courses offered over the

Internet bring education to those who are unable to get to the institution due to work and family obligations, time constraints, disabilities, or geographic location. Online courses also eliminate many of the barriers and constraints that deter adult learners from enrolling in traditional education programs. Online learners are motivated and challenged by the innovative tools and computer-mediated communication applications used in the online courses.

In 1998 there were 710,000 college students enrolled in distance education programs. It was predicted that by 2002 there would be an estimated 2.2 million distance education college students (Institute for Higher Education Policy, 1999). Institutions of higher education will prepare for this increase and meet the needs of those students by offering online degree programs. According to the Tennessee Board of Regents Regional Accrediting Commissions “technologically mediated instruction offered at a distance has rapidly become an important component of higher education. Growing numbers of colleges and universities are going on-line with courses and programs, while those already involved are expanding these activities. New providers, often lacking traditional institutional hallmarks, are emerging. This phenomenon is creating opportunities to serve new student clienteles and to better serve existing populations, and it is encouraging innovation throughout the academy” (Tennessee Board of Regents Committee for Accreditation Policies and Guidelines, 2000b, p. i).

According to a national report published in 1998 entitled *State Policies on Distance Education* thirty-three states are already involved in a statewide virtual university or a regional or national virtual university. Of the seventeen not involved

with a virtual university, five stated that they are considering the possibility. That is 76% of the states are either involved or looking to become involved in this new delivery method. Many southern states, such as Georgia, Florida, Kentucky, and Texas already have statewide distance education programs in place (Epper, 1999). In the fall of 2001, the Tennessee Board of Regents (TBR) addressed the needs of this diverse population and launched Tennessee's own statewide online degree program. The Tennessee Board of Regents is the governing body of the State University and Community College System of Tennessee. TBR is the nation's sixth largest higher education system, governing 45 post-secondary educational institutions including six universities, 13 two-year colleges and 26 technology centers, providing programs to over 180,000 students in 90 of Tennessee's 95 counties (Tennessee Board of Regents, 2001a).

The Tennessee Board of Regents (2001) identified the following program goals and objectives for the new Regents Online Degree Programs (RODP):

- To increase access to higher education for adult Tennesseans, especially those with some college experience;
- To provide student access to web-based courses and degree programs;
- To maximize the effective use of technology for delivery of college-level instruction;
- To encourage and support collaboration among TBR institutions.

While, the Regents Online Degree Programs will provide many new choices and opportunities for students, the program will also create an equal number of challenges

and issues for administrators and faculty. Among those issues to be addressed are accreditation, course development, curriculum and instruction, faculty, technology, and student issues. The student issues demand attention because in higher education there has been a major shift in the way in which we regard the student. The student has become the customer. One reason that we have seen this shift is due to the Internet and the ease in which information is transferred with a computer and a modem. We also now have other educational opportunities that provide similar services in terms of education and training to students/customers.

The TBR Guidelines for the Evaluation of Electronically Offered Degree and Certificate Programs, states, “colleges and universities have learned that the twenty-first century student is different, both demographically and geographically, from students of previous generations. These differences affect everything from admissions policy to library services” (Tennessee Board of Regents Committee for Accreditation Policies and Guidelines, 2000a, p. 9). Student issues in an online environment closely resemble those student issues found in the traditional classroom; however, providing services to the students who have different demographic profiles is a problem facing higher education today. A student on a college campus has access to any student support service offered and consultants and advisers are often just a few feet away. Similarly, online students require the same student support services. This was a concern for the Tennessee Board of Regents as they launched the Regents Online Degree Programs (RODP).

Statement of the Problem

The Regents Online Degree Programs will place students in a learning environment unfamiliar to many students and faculty. The problem is that this environment differs from a traditional institution of higher learning and continues to bring about questions from educators related to the issue of equivalency between online and traditional degree programs, especially in terms of student support services. The library is no longer a short walk across campus. Students and accrediting agencies expect the library services available in online degree programs equivalent to the library services available in traditional on-campus programs. However, until the perceptions and attitudes of the online student are assessed there is no means for demonstrating equivalency and improving the effectiveness of these programs.

In the *Draft Guidelines for the Evaluation of Electronically Offered Degree and Certificate Programs* developed by the eight regional accrediting commissions, student support is one of the five components that address institutional activity relevant to distance education. The guidelines include the following statement; “the institution recognizes that appropriate services must be available for students of electronically offered programs, using the working assumption that these students will not be physically present on campus” (Tennessee Board of Regents Committee for Accreditation Policies and Guidelines, 2000a, p. 11). These services may include library services. The protocols designed to determine that the service exist when reviewing either internally or externally distance education activities are as follows:

- Are the institution's policies and procedures appropriate and adequate from the standpoint of the distant student?
- If not all-appropriate resources are routinely available at a distance, what arrangements has the institution made to provide them to distant students?
- Are these services perceived by distant students to be adequate and appropriate?
- Are these services perceived to be adequate and appropriate by those responsible for providing them?
- What modifications or improvements are planned?

Therefore, of great importance to the Tennessee Board of Regents and to those interested in quality issues in distance education are the perceptions and attitudes of students in the new Regents Online Degree Programs with regard to distance library services.

Purpose of the Study

The purpose of this study is to determine the perceptions and attitudes of students enrolled in the Regents Online Degree Programs with regard to available library resources and services. As a result of the assessment of library resources and services available to students enrolled in the Regents Online Degree Programs data will be collected to determine the perceptions and attitudes of students regarding traditional and distance library services, determine if the outcomes resulting from the library services provided in the distance programs are equivalent to those outcomes for on-campus programs, and provide the information necessary for enhancing and improving the effectiveness of these online degree programs.

Research Questions

The following research questions were addressed during this study:

1. What are the levels of usage and satisfaction with regard to the TBR Virtual Library?
2. How do overall levels of usage and satisfaction differ between distance library services and traditional library services for students?
3. How do levels of satisfaction regarding distance library services and traditional library services differ by level of computer confidence for students?
4. How do levels of satisfaction regarding distance library services and traditional library services differ by level of computer experience for students?
5. How do levels of satisfaction regarding distance library services and traditional library services differ by level of demographic characteristics for students?
6. How do overall perceptions differ between library resources and services available through the student's Home School Library and the TBR Virtual Library for students?
7. What is the perception of students with regard to equivalency of library resources and services available through the TBR Virtual Library and a traditional on-campus library?
8. What are the suggestions of students for improving library resources and services available to students enrolled in courses in the Regents Online Degree Programs?

Significance of the Study

Through distance education and the Internet, higher education now has the opportunity to reach students without regard to geographic location. This study is significant because the challenges and opportunities with regard to this new means of

delivering education may bring about change from administrators in institutions across the world. Those who chose to ignore this new learning environment will risk losing students to other institutions. However, institutions will need to work at making this a successful endeavor. This study will also add to the body of literature that focuses on assessment of library resources and services in online degree programs. As institutions launch these statewide online degree programs assessment strategies must be in place to ensure an equivalent education in comparison to the traditional education. Also, the implications for these programs are quite numerous because support, such as management support, technical support, faculty support, and student support must be in place (Kroder, Suess, & Sachs, 1998). Institutions will answer the call for online degree programs and preparedness for the new breed of learners will determine whether these programs will succeed and become competitive forces in the arena of online education.

Assumptions

The following assumptions apply to this study:

1. Participants in this study were familiar enough with distance library services to make judgment about the resources and services available in a virtual library.
2. Participants in this study were familiar enough with traditional library services to make judgment about the resources and services available in an on-campus library.

3. Participants in this study were familiar enough with library resources and services to make judgment about the equivalency of library resources and services for distance libraries and traditional libraries.
4. Participants in this study were familiar with the online delivery of services.
5. Participants in this study had varied levels of computer experience.
6. Participants in this study were representative of students enrolled in the Regents Online Degree Programs.

Limitations

The following limitations apply to this study:

1. The participants were enrolled in courses that cover a range of disciplines and subjects.
2. The participants' levels of computer experience may differ.
3. The study was limited to the examination of the perceptions and attitudes of distance education students enrolled in the Regents Online Degree Programs during the fall semester of 2001.

Definition of Terms

Adult learner – a student generally 25 or older returning to an educational setting with an abundance of life experiences and responsibilities.

Course site – a place on a web server containing a collection of computer files and links related to a single course. The files can be text files, graphic files, animations, movie clips, sounds clips, forms, or data bases in html format (hyper text markup language).

Distance education – teaching and learning situations in which the instructor and the learner or learners are geographically separated and therefore rely on electronic devices (audio and video teleconferences, audio and video recordings, personal computer, correspondence texts, and multimedia systems) and print materials for instructional delivery.

Distance learner/student – a student enrolled in an educational program where the education or training is delivered through electronically mediated instruction including: satellite, video, audio graphic, computer, and multimedia.

Distance learning – the delivery of education or training through electronically mediated instruction including: satellite, video, audio graphic, computer, and multimedia.

Distance library services – those library services available to distance students via an online library website.

Distant student – a student enrolled in an educational program where the education or training is delivered through electronically mediated instruction including: satellite, video, audio graphic, computer, and multimedia

Face-to-face course – a course taught where the instructor and student are in the same location.

Internet – a system of linked networks that facilitates communication and transfers information among users.

Off-campus course – a course taught away from the campus site. Instructor and student may or may not be in the same location.

On-campus course – a course taught at a campus site. Instructor and student are in the same location.

Online learning – learning that utilizes the Internet in the delivery of course material, the interaction among users enrolled in the course, and facilitation of the course.

Online educational programs – educational programs offered through the Internet.

Traditional education programs – educational programs offered in a campus setting with face-to-face interaction between student and instructor.

Traditional learner – a student enrolled in an educational program offered in a campus setting with face-to-face interaction between student and instructor.

Traditional library services – those library services available to on-campus students when physically visiting the library.

Student support services – services offered to students to enhance and support the educational experience; such as, admissions, financial aid, academic advising, counseling and placement, and library/media, technical support, and delivery of course materials.

Virtual library – a seamlessly integrated web-based interface that enables access for users both local and remote, to a useful collection of resources and services.

Organization of the Study

This study is organized into five chapters. Chapter I introduces the problem under study, describes the purpose and significance of the study, proposes the research questions, states the importance of the study, assumptions, limitations, and defines key operational terms. Chapter II provides a literature review of the following related

topics 1) distance education, 2) characteristics of distance learners, 3) support services for distance learners, 4) distance library services, 5) accreditation policies and guidelines, 6) statewide distance library services, and 7) case studies and previous research. Chapter III provides an overview of the Tennessee Board of Regents Online Degree Programs and describes the research design and methodology, including a description of the subjects, and data analysis. Chapter IV contains the results of the study and Chapter V summarizes the research question findings, provides conclusions, recommendations, and suggestions for future research. A reference section and an appendix follow Chapter V. The survey instrument is included in the appendix.

C H A P T E R I I

REVIEW OF THE LITERATURE

The purpose of this chapter is to provide relevant reviews of literature and research to support this study. The reviewed literature that documented the most support for this study focused on the need for distance education programs, characteristics of adult learners and distance learners, support services for distance learning students, distance library services, accreditation policies and guidelines regarding distance education, statewide distance library services, and previous related studies/research.

Distance Education

Distance education programs have existed for many years; however, it was not until the early 1970's that external degrees were thought of as an answer to the educational needs of the people. Early on, Kascus & Guilar insisted that "the failure of faculty to recognize the viability and potential of the off-campus student has contributed to the low status of off-campus programs and has prevented these programs being fully integrated into the higher education mainstream" (Kascus & Aguilar, 1988, p. 30). Wolpert (1998) contends that economic and market needs of higher education are the driving force of distance education. However, the literature reveals that

continuing education and the emergence of non-traditional students seeking an education has led the way for many of the distance education programs across the country. In addition the innovative technology is opening education to the haves and the have-nots. The haves are those who have access to computers or the Internet while the have-nots are those who lack access to computers or the Internet. For some time now, researchers proposed changes in higher education due to the complexity of distance education. Kirk & Bartelstein stated that distance education has created a “permanent shift in the delivery of higher education in America” (Kirk & Bartelstein, 1999, p. 40). This shift requires that faculty, administrators and librarians adapt and deal with the “realities and shortcomings of life online” (Kirk & Bartelstein, 1999, p. 40). Kishore points out that a new set of skills is required as globalization and a market driven economy takes center stage and the life-long learner will breathe new life into this information hungry society through distance learning. We will shift from the industrial era to the information era. He also views distance education as the answer to “equity, access, flexibility and cost-effectiveness” (Kishore, 1998, p. 40). Khan and McWilliams (1998) predict that distance education will produce the following transformations:

- 1) A shift from classroom learning to independent learning
- 2) Institutional-based learning to life-long learning
- 3) Fixed curricula to flexible curricula
- 4) From teaching to learning
- 5) Supply-driven to demand-driven courses

Kascus and Aguilar stated “given the changing demographics, the competition for students, and the competition from other providers of education, it seems likely that more institutions will turn to off-campus programs as a way of preserving the status quo and remaining competitive and financially solvent” (Kascus & Aguilar, 1988, p. 31). These authors clearly recognized the impact that competition between institutions of higher learning and other providers of education would have on the delivery of education. However, the issues and factors surrounding off-campus programs and library support for distance students involved more than economics, it also involved the quality of the academic experience. The authors contend that “the library is a key component of quality education, and academic institutions have a responsibility to provide off-campus students with resources and facilities equivalent to those of their on-campus peers. Therefore, it is critical that off-campus programs be integrated into the higher education infrastructure. Only then will quality assurance and adequate library support be provided” (Kascus & Aguilar, 1988, p. 31).

Kascus (1994) states that distance education programs have the potential to provide convenience in a cost effective delivery method while increasing the likelihood of collaborative and cooperative partnerships with other libraries. This will bring about change to libraries and librarians. Kascus states “distance learning is a major force for educational change, with implications for libraries and librarians. The anticipated growth of distance education and off-campus instructional programs poses an ongoing challenge and opportunity for librarians to find new and better solutions to library access and to develop strategies that help students become independent learners”

(Kascus, 1994, p. 22). Ironically, many distance students were unlikely candidates for distance education just a few years ago, but now there is an expectation for convenience by students, as work, family, and personal issues demand more time leaving little time for course work (Davis, 2000).

Characteristics of Distance Learners

Distance students may be employed adults with a family. If these adult learners are balancing family, work and school they are likely to have time constraints that prevent them from seeking a traditional education. The non-traditional approach to education that distance learning supports provides these students an opportunity to fulfill lifetime goals and dreams. Slade (1998) characterizes the average distance learner as an employed adult with family responsibilities and previous post secondary education experience, seeking an education on a part-time basis, focused on a particular area of study related to their career or personal interest, motivated to learn, and bound by time and geographic restrictions. In addition, Slade states that the library skills of the distance learner are usually outdated because they were likely acquired years before when the adult learner initially entered postsecondary education.

Niemi, Ehrhard, and Neeley (1998) define adult learners as students returning to education on a full-time or part-time basis. They generally have led active lives involving work, family and community. Typically, adult learners possess understanding and perceptions based on their work experience; skills acquired in the work setting, and varied relationships made in the workplace. Adult learners usually have clear-cut educational goals and are willing to identify and prioritize those things

that are important. They are extremely motivated to learn and eager to take an active role in their learning. The motivation may originate from career opportunities, time constraints for studying due to work, family and community responsibility or just a great desire to finish what was started many years ago.

Blackmore (1996) contends adult learners are likely mature, with numerous life experiences, countless family and work obligations, fears, and relentless commitment. Adult learners are autonomous and self-directed, goal oriented, practical, relevancy oriented, problem-solvers, and have accumulated life experiences. Digilio (1998) views commitment, desire for self-paced study, and preference of selective anonymity characteristic of adult learners. Adult learners require flexibility due to the demands of children, aging parents, and employers. The high cost of tuition and conflict of traveling to and from campus combined with fears often discourages adult learners from returning to higher education. Distance learning eliminates many of these constraints by providing the needed flexibility. Also, distance learning educators “are apt to convey more enthusiasm, warmth, and general involvement than randomly selected full time staff members, and consequentially will retain more of their students” (Digilio, 1998, p. 28). These educators are challenged to “utilize available technologies to engage students in both mastery of course content through directed learning, and the independent application and construction of knowledge required of lifelong learners” (Adams, Bicknell-Holmes, & Latta, 1998, p. 2).

While these are characteristics and requirements that likely bring success to adult learners in distance education programs, there are barriers as well that are present

in the distance learning environment. Galusha (1998) states that barriers or problems may involve cost, motivation, lack of feedback due to reduced teacher contact, student support, student services, alienation, lack of experience and technical training. Kirk & Bartelstein (1999) declare that while highly motivated and self-directed, many adult students are insecure about their library research skills and lack of experience with the new technologies. To combat these barriers and problems adult students must believe that things are in place for them to be successful in the distance learning environment. Research shows that students believe that they were successful in the online world when they have computer experience, no time constraints, no geographic constraints, family support and work independently with ease (Schrum, 1999).

So what does the distance learning environment offer the adult learner? In the distance learning environment the adult learner is given the responsibility of making his or her own decisions concerning when and where to learn. The adult learner has an opportunity to share their many life experiences with a certain amount of anonymity. Motivation for the adult learner is generally internal. The distance-learning environment is less likely to encourage competition, yet motivation and an eagerness to learn and excel are common. Self-esteem, quality of life, and job satisfaction are all motivators. The distance-learning environment offers equity of educational opportunity, flexibility, and maintenance or increase in salary (Wood, 1998).

Adult learning theories, such as andragogy and self-directed learning, formulated from characteristics of adult learners and assumptions provide a link to online learning and distance learning. Malcolm Knowles's adult learning theory,

andragogy, is based on the following six assumptions: the need to know, the learners' self-concept, the role of the learners' experience, readiness to learn, orientation to learning, and motivation (Knowles, 1970). There is obviously a similarity between these assumptions and the distance learning environment. According to Brockett and Heimstra (1991) self-directed learning is activities where the individual learner assumes primary responsibility for planning, carrying out, and evaluating a learning endeavor. These researchers contend that online learning is not self-directed learning. However, if based on the numerous characteristics of the distance learning hereto offers at best a link between self-directed learning and the distance learning environment.

Support Services for Distance Learners

The rapid growth rate of distance learning has raised questions related to both the "academic integrity of remote delivery programs and the quality of academic support services available to off-campus students" (Brown & Reiseck, 1994, p. 36). Students in traditional educational programs have unlimited access and availability to student support services. This is often taken for granted because the assumption is that this is part of the educational process. In online educational programs access to and availability of these student support services must be provided in a different, yet equivalent manner. The students in an online educational program continue to look to these services for support.

The utilization and satisfaction of these services by students in online educational programs remain in question. Paneitz searches for answers in a 1997 study that looks at whether "the type of delivery system used for the provision of advising,

counseling, and library services to distance students impact the utilization of and level of student satisfaction with such services” (Paneitz, 1997, p. 6). Wagner (1993) points out that student support services are vital to the distance education student and greatly determine the success of the distance education experience. The distance education experience is often a lonely experience for some students due to the sheer nature of the online learning environment. The absence of or unavailability of student support services to distance students may isolate and magnify the feeling of loneliness (Paneitz, 1997). Ensuring student support services for distance students are equivalent to the student support services that traditional students access is necessary if online degree programs wish to claim an equitable education for distance students.

The Western Cooperative for Educational Telecommunications (WCET), three institutions, and an education software company are currently partnering in the Learning Anytime Anywhere Partnership (LAAP) grant to develop online student services modules. In addition to the modules the partnership will “create a set of guidelines for other institutions to use as they develop their own ‘home-grown’ online student services” (NCHEMS, 2001, p. 2). Through NCHEMS involvement and evaluation of the WCET grant, two assumptions regarding distance education were identified: online instructions and student services will become very important to institutions of higher learning in the future and student services and academic affairs should join forces to foster the development of college students. Further evaluations of similar grants also revealed: definitions of student services are unclear and inconsistent; organizational structures are complex and outdated; and administrative

policies related to student services are inadequate (NCHEMS, 2001). A key finding is that there is the “tendency for students to seek out student services only when they need them, often never knowing that additional services exist” (NCHEMS, 2001, p. 4). Therefore, institutions must become proactive by introducing student services to students before they need them.

Research shows that there is a growing demand for online student services. A recent study from the National Center for Education Statistics reported that from 1995 to 1998 higher education institutions offering online courses increased from 33% to 44% while nationally distance education enrollment doubled. A prediction for 2003 is that students in higher education will access approximately 60% of course content electronically. The report states that “higher education’s interest in online education is fueled by the increasing sophistication of telecommunications and widespread use of computers, shifting student demographics, needs of time- and place-bound learners, and the press to reduce instructional costs” (NCHEMS, 2001, p. 2). While it is unfortunate that most institutions providing distance education have focused on course instruction without regard to support services; however, there is evidence that access to support services is one of the leading factors that determines success in a distance learner (NCHEMS, 2001).

Distance Library Services

Historically, libraries have provided a variety of services to on-campus students. According to Lebowitz, at a minimum library services for off-campus students must

comprise the following services to claim that library services for off-campus students are equivalent to library services available to on-campus students.

- 1) Instruction in the use of libraries and library resources, either via printed or electronic format, or via telephone;
- 2) Contact information for requesting assistance from the library by telephone, FAX, e-mail, Web site, or snail mail;
- 3) Information about requesting material not available at local site libraries;
- 4) Quick turnaround time for materials requested from the library collection;
- 5) Quick response to requests for reference assistance and guidance; and
- 6) Quick response time to non-library related questions (i.e., who should I ask about...?) (Lebowitz, 1997, p. 307).

According to Kascus and Aguilar (1988) off-campus courses in the early 1980's caused a great deal of concern regarding the provision of library services for the geographically scattered students enrolled in off-campus programs. Finding a solution to the question, how do we deliver off-campus library services to distance students, became the quest of many academic institutions with off-campus programs. Some of the problems faced were providing access to library resources and staff, providing support for document delivery, providing services in a timely manner, and obtaining support from faculty by including library assignments and library use in course requirements. Some of the solutions offered to the access problem were to establish branch libraries at the off-campus sites, use the campus or home library for all off-campus students, use a trunk delivery system, or use local libraries. A solution to the faculty support problem was to create a marketing strategy that highlighted the resources and support available to faculty as they develop these new off-campus courses. Technology, although answering the call in other ways and transcending how

information was gathered and delivered, would not support the strict accreditation guidelines and mission statements of higher education institutions offering courses through distance education programs today. Providing library support to off-campus students was extremely difficult during the early years for those institutions with hopes of ensuring equivalent library services for on-campus and off-campus students.

The growing demand for distance education has brought many nontraditional students back to the classroom with antiquated library skills. Alexander & Smith (2001) contend that these lifelong learners or adult learners as they are often called require support for library skills similar to the support offered for technical or computer skills. Library skills tend to get rusty if not used. Also, changes have occurred due to the explosion of electronic technology in libraries. Nontraditional students need library support if they are to successfully meet the research demands in distance education programs. According to Kascus & Aguilar (1988), the library provides support and services that are an important part of a quality education that institutions should make available to all students whether on-campus or off-campus. The library also plays a significant role in the educational process by facilitating independent learning for students. Unfortunately, the library rarely receives recognition for the significant role it plays “in support of the quality of education or in the development of lifelong learning skills” (Lebowitz, 1997, p. 303). Heller-Ross (1999) states that distance-learning students will require a full range of library services because library research and information literacy are important and essential to a distance-learning students. Cavanaugh (2001) believes that distance learners frequently need information literacy

training or assistance using distance library resources and services. Often these students are unaware of the resources and services available or how to access the resources or services. This suggests that the library will continue to play an important role in developing resources and services for students enrolled in distance education program.

Libraries must become proactive in terms of understanding the needs of the distant students and seek to uncover the big picture and “institutional commitment to providing library services to distant students” (Lebowitz, 1997, p. 305). The planning and development of library services for distant students requires knowledge about the “degrees or programs offered off-campus; delivery format of off-campus courses—not only how, but when; number of students enrolled in the various distance/off-campus programs; and projections for future development of distance/off-campus programs and courses” (Lebowitz, 1997, p. 306). This information will provide librarians with a blueprint for designing services that will better meet the needs of distant students as well as justify budgetary support for distance library services to administrators (Lebowitz, 1997).

Distant students “need opportunities to engage in independent learning activities utilizing dynamic collections of scholarly resources” (Adams et al., 1998, p. 3). Niemi et al. (1998) state that distance learners expect distance library services to include the ability to:

search periodical indexes, abstracts, CD-ROMs, and bibliographic services such as ERIC; do electronic book check outs and renewals over the telephone (toll free); deliver photocopies, the results of literature searches, government documents, and microfiche duplication; access

answers to research questions; access tables of contents from professional journals; internally track and deliver all interlibrary loan services; and establish an electronic feedback system (Niemi et al., 1998, p. 68).

Distance learners also expect to receive guidance and help in using the library from a distance. This guidance or help needed may include logging into the main library site with full access to all resources and services or the learner may need the assistance of a librarian regarding conducting online database searches. The literature continues to reveal the importance of the relationship between distance learner and distance librarians. This relationship or collaboration is key to the success of adult learners and particularly those adult learners involved in graduate work that is research intensive (Niemi et al., 1998). Lebowitz (1997) states that often how to use the library is not incorporated into distance courses. Likely reasons for excluding library use in a distance course are 1) assumptions are made regarding library skills; 2) faculty do not require students to use material other than the assigned textbook for research; 3) faculty have forgotten that instruction in the use of library resources and services was helpful to them; and 4) faculty may think that the Internet has everything the student will ever need. This void of instruction on library use puts distance students at a disadvantage because they are unable to access adequate library resources in the same manner of on-campus students.

According to Alexander L. Slade there are five key issues in distance learning library services; macro issues, external variables, logistical factors, planning and administrative issues, and service and instructional issues. The macro issues that impact distance learning are the political motive to increase distance learning due to the

development of new information technologies. “Academic institutions and governments are regarding this form of education as a means to offset shrinking revenue and reduce budgets for program delivery” (Slade, 1998, p. 19). New markets are being sought such as overseas countries and the international students. Other macro issues are the establishment of academic consortia, creation of virtual universities, and the request from the private sector for retraining programs and professional development programs for employees. External variables that influence distance library services are accreditation guidelines, copyright law issues and licensing provisions required for database vendors. Logistical factors involve the many questions surrounding access to library services for students at a distance. Planning and administration issues involve the role of the librarian in the planning and development of library support systems for distance learners. Service and instructional issues bring about questions that focus on access and usage of library services by distance students. This leads to additional questions about the role that library instruction should play in the education of a distance students and whether library skills are needed in a distance-learning environment (Slade, 1998). All these issues raise concerns that institutions of higher learning must consider and address as they embark on distance leaning. Every issue that Slade highlights is seemingly interrelated and important because they provide global view of the needs and issues surrounding distance learning library services.

A compelling outcome of the information age is the transformation in the role of the librarian and library staff. Librarians will be asked to teach, consult, create, select, organize, and preserve. With the emphasis on information access, the role of the

librarian will resemble that of classroom faculty because of the instructional aspects.

Below are responsibilities of the new librarian:

- Partnering with discipline faculty and other specialists for delivery of information and instruction
- Designing instructional programs for information access
- Teaching students and faculty how to access information, whatever its format or location, and how to evaluate what they find
- Serving as consultants on information resources, issues, and problems
- Developing and implementing information policy
- Creating information access tools
- Selecting, organizing, and preserving information in all formats
- Serving as leaders and facilitators in introducing information technologies and ensuring their effective use (Consortium for Educational Technology for University Systems, 1997, p. 5-6)

Librarians will also face many challenges as they set out to deliver library services to distance learners. Lebowitz (1997) identifies the following challenges: convincing educators and administrators that a courses delivered electronically bring about changes for libraries in terms of how students use the library and its many resources and services; library services provided for students in correspondence/independent study courses will not meet the needs of distance education students; the quantity of work required for on-campus students and off-campus students may not mirror each other, but the quality or type of learning experience will have a distinctive similarity (Lebowitz, 1997).

Davis (2000) states that librarians will be asked to provide immediate access to information and specialized services that are often tailored for a particular group or individual. To handle these specialized services many libraries have designated staff to address the needs and services of distance students. Kirk & Bartelstein (1999) assert

that librarians who are responsible for distance library services should first educate faculty and administrators on the new needs and demands associated with providing distance library services to distant students. Adams et al. (1998) recommend that librarians ensure that faculty is knowledgeable of the distance limitations they incorporate in their courses. Additionally, faculty must strive to include assignments that require distant students to use the library. Specifically “completing their technology-enriched curriculum with assignments that require distant students to exercise independent learning skills in the information-rich environment of the academic library” (Adams et al., 1998, p. 4).

Librarians view the library web site, electronic journals, databases, and other resources and services as valuable assets, while realizing that untimely document delivery, unreliable interlibrary loan, and limited access to licensed electronic resources as probable liabilities. Therefore, librarians have become activists for their services by partnering with faculty in the development phase of distance education programs. Librarians are activists for the students as well by maintaining an active role in the development or revision of courses regarding research requirements and library use (Davis, 2000; Kirk & Bartelstein, 1999). This also places the librarians in a position to “challenge their institutions on the quality and equitability of services that support these programs” (Kirk & Bartelstein, 1999, p. 40).

Swain (2001) recognizes the importance of a supportive administration, collection management, acquisitions, cataloging, collection access, reference and instruction, staff training, and developing ways to deliver library instruction to distance

learners. A group of researchers identified access to electronic resources, provision of liaison services, and timely delivery of materials as important areas of concern for anyone involved in coordinating or developing of distance learning library services (Adams et al., 1998).

Cline (2000) cautions us not to overlook the important elements of scholarly research such as reliability, redundancy, and the ability to replicate results while declaring the Internet revolutionary to information access. Scholarly research scrutinizes and verifies previous work in order to construct new ideas and develop new research. In fields such as business, science, industry, architecture, transportation, and medicine this scrutiny and verification is imperative. It is the research libraries that have the greatest challenge as they continue to provide information for scholarly research amidst the proliferation of information available on the Internet.

As we strive for equity between libraries services available to off-campus students and library services available to on-campus students, Lebowitz (1997) suggests that institutions consider external influences, institutional commitment, and student environment. External influences such as accreditation agencies and ACRL guidelines play a major role in shaping and defining library services for off-campus students. Institutional commitment to providing library services and resources to off-campus students is absolutely necessary for an adequate and equitable library support system. Lastly, knowing and anticipating the needs of the student environment in terms of location of the students, how will students access library resources, how student will request and receive library materials, how will students learn to use the library

resources, and how students will communicate with librarians while at a distance.

Fulcher and Lock (1999) maintain that “the central issue in library support for distance learning is therefore one of equity ... it is unreasonable to expect distance learners to survive entirely on their own initiative. Universities and other distance learning providers ought to provide library services that make the distance learning experience as comparable to on-site provision as possible” (Fulcher & Lock, 1999, p. 320).

Caspers (1999) suggests that institutions focus on assessment and evaluation of distance library services as we strive for equity. The evaluation of distance library services is essential if libraries wish to assess student awareness of distance library services and the effect of marketing techniques. Contact with the distance learner provides faculty with an opportunity to get feedback regarding the effectiveness of library support. In addition to this informal evaluation, Caspers contends that a more formal assessment such as focus groups or surveys is required. Ultimately, the goal of assessment is “to improve service design, marketing efforts, and the delivery of services. Improvement efforts should be continuous, with changes being considered in response to input from users, and implemented as appropriate ... and without library services conducive to student success, the home institution may lose students to schools with better programs” (Caspers, 1999, p. 310).

Accreditation Policies and Guidelines

In 1976 it was noted by the Council of Postsecondary Accreditation that there was “significant evidence of inferior off-campus programs and encouraged the regional accrediting agencies to deal with the problem through the policy process” (Kascus &

Aguilar, 1988, p. 31). Today, existing policies and guidelines for distance learning library services vary according to accrediting commissions. However, many institutions as well as accrediting agencies turn to the Association of College and Research Libraries (ACRL), a division of the American Library Association, when developing guidelines and policies for distance learning library services regarding accreditation. As the introduction to the 2000 version states:

Library resources and services in institutions of higher education must meet the needs of all their faculty, students, and academic support staff, wherever these individuals are located, whether on a main campus, off campus, in distance education or extended campus programs, or in the absence of a campus at all; in courses taken for credit or non-credit; in continuing education programs; in courses attended in person or by means of electronic transmission; or any other means of distance education. The *Guidelines* delineate the elements necessary to achieving these ends. The *Guidelines* are intended to serve as a gateway to adherence to the ACRL Standards in the appropriate areas and in accordance with the size and type of originating institution (Association of College & Research Libraries, 2001, p. 1).

Over the years the guidelines have evolved into a complex document. The latest edition, approved in 2000, places greater emphasis on outcomes assessment. The previous version, 1998 edition, took into account the absence of a campus and acknowledged the “growing number of colleges or universities, often styled virtual, which have no physical plant other than automation centers and some staff office” (Gover & Caspers, 1999, p. 50). Prior versions, 1990 and earlier, thought of distance learning programs “as being off-campus or extended campus undertakings of standard college and universities” (Gover & Caspers, 1999, p. 50). However, the original philosophy of the guidelines is still valid and similar to the original version in that the 1967 guidelines were “designed as a set of principles, which college and university

libraries, extension librarians, and directors of extension program could draw upon in the establishment of sound library service to extension students” (Caspers, Fritts, & Grover, 2001, p. 141).

The ACRL Guidelines for Distance Learning Library Services include philosophical precepts that provide the conceptual basis for the *Guidelines*. There are four precepts significant to this study. The first precept is related to the attainment of academic skills; the second precept relates to lifelong learning skills; the third precept relates to the outcomes assessment; and the fourth stresses equivalency. Below are the related precepts:

1. Access to adequate library services and resources is essential for the attainment of superior academic skills in post-secondary education, regardless of where students, faculty, and programs are located. Members of the distance learning community are entitled to library services and resources equivalent to those provided for students and faculty in traditional campus settings.
2. The instilling of lifelong learning skills through general bibliographic and information literacy instruction in academic libraries is a primary outcome of higher education. Such preparation and measurement of its outcomes are of equal necessity for the distance learning community as for those on the traditional campus.
3. The library has primary responsibility for identifying, developing, coordinating, providing, and assessing the value and effectiveness of

resources and services, designed to meet both the standard and the unique informational and skills development needs of the distance learning community. The librarian-administrator, either centrally located or at an appropriate site, should be responsible for ensuring and demonstrating that all requirements are met through needs and outcomes assessments, and other measures of library performance, as appropriate, and as an ongoing process conjunction with the originating institution.

4. Effective and appropriate services for distance learning communities may differ from, but must be equivalent to, those services offered on a traditional campus. The requirements and desired outcomes of academic programs should guide the library's responses to defined needs.

Innovative approaches to the design and evaluation of special procedures or systems to meet these needs are encouraged. (Association of College & Research Libraries, 2001, p. 3)

The Southern Association of Colleges and Schools (SACS) *Criteria for Accreditation*, one of the more detailed standards on distance learning, states the following activities specific to distance learning:

For distance learning activities, an institution must ensure the provision of and ready access to adequate library/learning resources and services to support the courses, programs and degrees offered. The institution must own the library/learning resources, provide access to electronic information available through existing technologies, or provide them through formal agreements. Such agreements should include the use of books and other materials. The institution must assign responsibility for providing library/learning resource sand services and for ensuring continued access to them at each site.

When formal agreements are established for the provision of library resources and services, they must ensure access to library resources pertinent to the programs offered by the institution and include provision for services and resources which support the institution's specific programs—in the field of study and at the degree level offered (Commission on Colleges of the Southern Association of Colleges and Schools, 1998, p. 57-58).

Middle States Commission on Higher Education and Western Association of Schools and Colleges adopted a set of guidelines developed and released by the eight accrediting commissions in the United States. The elements addressing library services essential to quality distance education programs are:

1. Library resources appropriate to the program, including, reference and research assistance; remote access to data bases, online journals and full-text resources; document delivery services; library user and information literacy instruction, reserve materials; and institutional agreements with local libraries.
2. Training in information literacy including research techniques (Western Associate of Schools and Colleges, 2001).

These existing policies on accreditation and information resources and library services for distance learning, serve as guidelines for institutions as provisions of library services are established. According to the Council for Higher Education Accreditation (CHEA) there are over sixty accrediting organizations; therefore, there remains some inconsistency in the policies and guidelines among accrediting agencies. However, the guidelines provide institutions with a means for demonstrating

institutional commitment to the accreditation process as well as distance education programs and student services (Council for Higher Education Accreditation, 2001).

Statewide Distance Library Services

With the development of more virtual universities and statewide distance education programs, states are addressing the information and research needs of the distance learner by establishing statewide distance learning libraries. These libraries are designed to provide online access to library resources and services to students enrolled in distance education programs and faculty who teach the students enrolled in these programs. In this section we take a brief look at distance learning libraries in place at Georgia, Florida, and Kentucky.

Georgia

Georgia Library Learning Online (GALILEO), an initiative of the Board of Regents of the University System of Georgia, became operational in 1995. This World-Wide Web based virtual library is accessible to students and faculty in the Georgia University System as well as all Georgia citizens (Board of Regents of the University System of Georgia, 2001). The GALILEO was designed to “increase the quality of teaching, research and service; to improve information services and support through the sharing of resources; to utilize more fully the PeachNet statewide connectivity; and to place the University System in the forefront of library information technology” (Southern Regional Education Board, 2001).

Florida

The Distance Learning Library Initiative, a cooperative venture between the State University System, the Community College System, and the State Library of Florida, became operational in 1997. This statewide distance-learning library was designed to serve students enrolled in distance learning programs across the state. The Distance Learning Library Initiative “provides comprehensive access to various online databases, a reference and referral service (800 number), user training, document delivery via a statewide courier service, and full borrowing privileges at all 38 public institutions of postsecondary education” (Southern Regional Education Board, 2001). Unfortunately, the Florida Distance Learning Reference & Referral Center, a key source of support and assistance, closed in December 2001 due to a lack of funding (University of Florida George A. Smathers Libraries, 2001).

Kentucky

The Kentucky Virtual Library (KYVL), an initiative of the State-Assisted Academic Library Council of Kentucky, became operational in 1999. The mission of the Kentucky Virtual Library is to “provide quality library and information resources and qualified, well-trained staff to help support the research and lifelong learning needs of KYVU [Kentucky Virtual University] students and citizens of Kentucky” (Kentucky Virtual Library, 2001). The Kentucky Virtual Library is designed to “ensure universal access using the statewide telecommunications network; to increase access to electronic resources; to establish statewide licensing agreements; and to prepare students, faculty,

staff and state residents to participate fully in today's information-based global economy" (Southern Regional Education Board, 2001).

Case Studies and Previous Research

This section presents survey findings, assessment models, strategies and recommendations of institutions regarding distance library resources and services. A survey at the University of Maryland University College revealed that students as well as new faculty are unaware of the many online library resources and services available; therefore educating new students and new faculty is important to the success of distance education programs. In addition, library workshops and refresher courses are of equal importance to long-time faculty, full-time and part-time, teaching online courses. Faculty is in a position to introduce students to online library resources and services. Library personnel and administrators have a responsibility to faculty to provide an opportunity for them to learn online techniques and skills that will be useful to them as well as their students (Schweber, Kelley, & Orr, 1998).

Maughan (1999) surveyed faculty and graduate students at the University of California, Berkeley during the fall semester of 1997 regarding use and satisfaction with campus library services. Faculty and graduate students were surveyed. The majority of the respondents were considered intensive users of the campus libraries. The survey revealed that a majority of the students were unaware or had little experience with the instructional services offered at the university. Sixty percent of the faculty and approximately fifty-four percent of the graduate students reported insufficient experience to evaluate library instructional services. An even larger

majority was unfamiliar with document delivery services, 64% of faculty and 95% of graduate students.

Kascus (1994) conducted a survey that looked at a number of issues regarding library support for off-campus and distance education programs. Two of the objectives of the study focused on the perceptions and attitudes of deans and directors of library schools regarding the role and impact of the library as it relates to students in off-campus and distance education programs, specifically, library support and curriculum preparation of librarians. Here are a few of the items and responses from the study related to library support:

Perception of the role of the library and its impact on the extended campus

- 61.6% view the role of academic libraries in supporting off-campus program as the same as that for on-campus programs
- 15.4% did not view the role of academic libraries in supporting off-campus program as the same as that for on-campus programs
- 23.0% expressed no opinion or did not answer

Perception of the adequacy of the library support for off-campus programs

- 18.0% think that there is adequate library support for off-campus programs
- 48.7% did not think that there is adequate library support for off-campus programs
- 33.3% expressed no opinion or did not answer

Is the lack of library support perceived by off-campus faculty as a disadvantage of off-campus instructional programs

- 53.9% agree that faculty perceives it as a disadvantage
- 15.0% did not agree that faculty perceives it as a disadvantage

31.0% expressed no opinion or did not answer

Perception of off-campus courses being taught differently because of the lack of library support at the site

59.0% agree that courses are taught differently

20.6% did not agree that courses are taught differently

20.6% expressed no opinion or did not answer

Perception of present library school curriculum prepares librarians to meet the information needs of the extended campus

41.1% agree that the present curriculum provides adequate preparation

33.3% did not agree that the present curriculum provides adequate preparation

20.6% expressed no opinion or did not answer

The study also revealed that 66.7% of the respondents do not see a need to expand the curriculum to include the area of off-campus librarianship/library service. Also, 34.6% indicate that there is already too much material to cover and not enough time.

As part of DePaul University's Vision 2006 plan, which is a university-wide blueprint to plan and manage the university, university officials are looking at ways to continue providing traditional library support to students at a distance. DePaul's infrastructure is designed to provide these services to distance students, however; they see a need to reinvent many of the traditional library services because they cannot be "delivered physically in a reasonable amount of time" (Cervone & Brown, 2001, p. 147). The reinventing of services may not produce distance library services that are identical to traditional library services, but the services will be equivalent. The equivalency between the services for on-campus students and distance students is part

of the requirements of DePaul's accreditation association for distance library services. Therefore, in Vision 2006, DePaul has made several recommendations to transform their current library services into services that also support the distance learning. These recommendations include expanding the digital collections, providing easy access and delivery of materials, and designing a website that is patron friendly. Supporters of this initiative realize that while many of these recommendations may generate much discussion; it is inevitable that as distance learning increases so too will changes in libraries (Cervone & Brown, 2001).

Rio Salado College, a nontraditional college built with non-traditional students in mind, is void of buildings and walkways, but since 1978 has catered to the non-traditional students by offering courses at a distance. Rio Salado is one of seven colleges in the Maricopa Community College District, the largest community college district in the nation. There are only eighteen full-time faculty and the librarian is one of these faculty. However, in 2000 there were between five hundred and six hundred adjunct faculty supporting and providing education to distant students. Previously, the college provided a small library resource center for faculty and staff; however, due to technological changes and requirements set forth by the ACRL guidelines, the college provided distance library services to students as well as continuing to support faculty and staff. The college has taken an integrated approach to distance education and formed a partnership between the instructional faculty and the library faculty. The results are proactive in terms of meeting the needs of the faculty as they develop and design new distance courses, such as procurement of library resources (Davis, 2000).

Slade (1998) states that a partnership with faculty is necessary for librarians to provide useful services to distance students. Successful planning of distance library services includes “being proactive initiating innovative services to meet the unique needs of distance learners...maintaining a high profile with faculty and course developers...promoting awareness of the role that the library can play in distance learning” (Slade, 1998, p. 20). Ultimately the attitudes and perceptions of students enrolled in Rio Salado College are influenced by the information provided by the librarian regarding course development (Davis, 2000).

St. Edwards’ University, a small private liberal arts university in Texas with approximately 3,600 students, has an undergraduate degree program targeted to adults returning to college called the New College program and recently added an accelerated Bachelor of Business Administration program called PACE (Program for an Accelerated College Education) to the New College program. Because this program targets non-traditional students the need for off-campus courses and distance library services is great. St. Edward’s has looked to consortia agreements with other institutions in the area to meet the demands of the distance students regarding distance library services. In 1998 the state of Texas offered a Tex-Share membership to private universities and colleges in Texas. Membership in this program provides the students of St. Edward’s with access to all the libraries involved in the Tex-Share program. Although there were many issues surrounding the sharing of library resources; such as, interlibrary loan, technology requirements, facility availability, access to online database, resource support, and technical support, the Tex-Share program provides

another means for meeting the needs of the distance learners (Brownlee & Ebbers, 2001).

The University of Iowa Libraries administered a survey to students enrolled in off-campus programs regarding library services in the fall semester of 1998 and the spring of 1999. 706 surveys were sent out and 38.5 % were returned and used in the analysis. Dew (2001) later published the results in an article. Here are a few of the results:

Coursework and Library Use

90% have been required to write a research paper for at least one class
65% have used library resources for their class projects
70% use public libraries for some of their information needs
30% use public libraries as their primary information source
50% use academic libraries as their primary information source

Library Services Importance overall rankings (students were asked to rank their top three choices)

1.	Web and/or e-mail reference services	71.3%
2.	Remote access to full-text database	65.1%
3.	Home delivery of books and articles	60.7%
4.	Access to Internet resources	54.8%
5.	Toll-free number for reference	49.3%
6.	Remote access to university catalogs	49.1%
7.	Interlibrary loan/doc-delivery service	43.8%
8.	Remote access to electronic indexes	43.3%
9.	Borrowing agreements with libraries	37.9%
10.	Guides to doing library research	30.9%
11.	Computer-assisted instruction	27.9%
12.	Librarian-provided instruction	20.2%

The library service rankings were very useful because it shows what services students perceive most important. The University of Iowa used this information to implement new initiatives and improve current services provided by the library.

Brown and Reiseck (1994) designed a study that proposed a model that recommends improvements to the delivery of library services to off-campus students. The Off-campus Library Services Evaluation Model (OCLS) seeks involvement from all parties, such as administrators, faculty, librarians, and off-campus students depending on off-campus library services with a stake in the success of distance education programs. Actually, the evaluator uses a collaborative approach by creating partnerships between stakeholders. This approach gets everyone with a stake involved in the ultimate goal, which is improving the delivery of library services to off-campus students. The criteria categories in the model are 1) standards set by regional higher education accrediting bodies; 2) professional library science guidelines set by the Association of College and Research Libraries (ACRL); 3) faculty needs; and 4) student needs. The researchers administered the Library Services Questionnaire to forty-two students enrolled at a branch of a small comprehensive liberal arts college. This particular branch catered to adult students returning to college. The motivation behind this study hinged on the perception that the students/faculty were not using the library services at the off-campus locations although in place was what most believed to be a well designed off-campus library system.

The findings revealed a need for library orientation for new students (over 90 percent thought they would benefit from library services orientation), ongoing communication about library services to increase awareness of library services (over 60 percent lack awareness of the library services and less than 30 percent had used the library services), general satisfaction of faculty with library services, and students are

more likely to use the library the longer they are in the program (Brown & Reiseck, 1994). These findings provide useful insight into the attitudes and perceptions of off-campus students regarding off-campus library services.

Summary

This review of literature revealed that distance education programs have made an enormous impact on how institutions support students as they engage in learning from a distance. Specifically, distance learning has changed how library services will be delivered as a result of the different set of needs and expectations of the distant learner. Distance learners require library usage training, institutional commitment, knowledgeable librarians, and a means for providing feedback regarding their distance library experience. Libraries must adhere to the many accreditation policies and guidelines regarding distance library services and have an opportunity to take advantage of partnerships with other institutions, and outside organizations as they set out to offer distance library services. Institutions are taking a proactive approach when they involve librarians in the planning of distance education programs because librarians play a vital role in the education process. The literature review also revealed that faculty should look to their own librarians as they design and develop courses for distance education students. The expectations of the distance learner are not the same as they were in the early days of distance education; therefore, distance librarians must continue to search for new ways to deliver library services; yet continue to be committed to providing full services to distance learners. Extremely important to this study, the literature review reveals that, assessing the student perceptions and attitudes

in an online setting are no easy feat because there are many factors that influence a student's perception or attitude about their online experience. Attention should be given to the student perceptions and attitude as the distance education programs first get under way.

CHAPTER III

METHOD

The purpose of this chapter is to describe the method and procedures employed in this exploratory research study. The exploratory nature of the study provided the researcher with an opportunity to utilize quantitative methods to assess the attitudes and perceptions of students enrolled in online degree programs. The objective of quantitative research “has always been to assert, investigate, and generate results and theories that are generalizable ... Therefore, the results of quantitative educational research present the greatest likelihood of applicability in settings other than those in which they were conducted” (Hite, 2001, p. 17). The results of this study will likely apply in other setting as well.

Presented in this chapter is the description of the procedures used by the researcher to conduct the study. This chapter also presents the research questions guiding the study, an overview of the Regents Online Degree Programs, and descriptions of the participants, instrumentation, the pilot study, and method of data analysis.

Research Questions

The methods and procedures were designed to answer the following questions:

1. What are the levels of usage and satisfaction with regard to the TBR Virtual Library?
2. How do overall levels of usage and satisfaction differ between distance library services and traditional library services for students?
3. How do levels of satisfaction regarding distance library services and traditional library services differ by level of computer confidence for students?
4. How do levels of satisfaction regarding distance library services and traditional library services differ by level of computer experience for students?
5. How do levels of satisfaction regarding distance library services and traditional library services differ by level of demographic characteristics for students?
6. How do overall perceptions differ between library resources and services available through the student's Home School Library and the TBR Virtual Library for students?
7. What is the perception of students with regard to equivalency of library resources and services available through the TBR Virtual Library and a traditional on-campus library?
8. What are the suggestions of students for improving library resources and services available to students enrolled in courses in the Regents Online Degree Programs?

Overview of Regents Online Degree Programs

The Regents Online Degree Programs (RODP), established in 2000, is an online degree program that is offered by the Tennessee Board of Regents (TBR). The Tennessee Board of Regents was created in 1972 by the General Assembly as the governing body of the State University and Community College System of Tennessee. In 1983 the Technical Institutes and Area Vocational Schools (now called Tennessee Technology Centers) became a part of the Tennessee Board of Regents. The Tennessee

Board of Regents is the nation's sixth largest higher education system, governing 45 post-secondary educational institutions including 6 universities, 13 two-year colleges and 26 technology centers, providing programs to over 180,000 students in 90 of Tennessee's 95 counties (Tennessee Board of Regents, 2001a).

The Regents Online Degree Programs give students an opportunity to choose the college or university, which is referred to as the home school, that will award their degree. According to the mission statement, the Regents Online Degree Programs "using technology, will improve access to high quality, affordable, student-centered learning opportunities through cooperation among TBR institutions" (Tennessee Board of Regents, 2001a). The six universities award the bachelor degrees and the thirteen two-year colleges award the associate degrees. The five degree programs offered beginning in the fall of 2001 were:

- Associate of Applied Science in Professional Studies with concentration in Information Technology
- Associate of Arts in General Studies (University Parallel)
- Associate of Science in General Studies (University Parallel)
- Bachelor of Professional Studies with concentrations in Information Technology or Organizational Leadership
- Bachelor of Interdisciplinary Studies (General Studies/Liberal Studies/University Studies)

All courses are completely transferable among the participating Tennessee Board of Regents institutions and the Southern Association of Colleges and Schools

accredit all participating institutions. Credit may be given for life experience, including appropriate work experience by participating institutions. Admission requirements are identical to requirements for students enrolled in traditional education programs at the home school. Admission to the Regents Online Degree Programs is open to any high school graduate at the 13 two-year colleges; however, the 6 universities admission policies may differ and may be obtained by contacting the home school (Tennessee Board of Regents, 2001a).

Student services such as financial aid, advising and counseling, bookstores, and library services, available to RODP students are provided through the student's home school. Student services "help ensure a positive and successful online college experience" (Tennessee Board of Regents, 2001b). In addition to library services provided through the student's home school, the Tennessee Board of Regents developed a virtual library for students enrolled in the RODP.

The mission of the TBR Virtual Library is to "meet curricular and research needs of students and faculty involved in online learning and teaching in academic institutions of the TBR system by providing access to necessary library resources" (Tennessee Board of Regents Committee for Accreditation Policies and Guidelines, 2000c, p. 2). The Tennessee Board of Regents established the Virtual Library "to provide online search capabilities, reference materials, databases, journals, and other research services to Regents' Degree students and faculty by joining together the resources of TBR libraries throughout the State of Tennessee" (Tennessee Board of

Regents, 2001c). The Virtual Library provides a gateway to research and information void of any geographic or time constraints to RODP students and faculty.

Participants

The participants in this study consisted of students enrolled in the Regents Online Degree Programs during the fall semester of 2001. All participants were enrolled in at least one course offered through the Regents Online Degree Programs. The study was a population study and the population of the students at the time the survey was administered was 1,034.

Instrumentation

The researcher developed an online survey instrument (Appendix A) after an unsuccessful search for a field-tested and frequently used instrument that addressed all priorities set by the research questions. The items included in the instrument were determined from a review of instruments that focused on student support services, library services, online course delivery, and distance education programs. The survey instrument covered five areas: the TBR Virtual Library, Home School Library, distance and traditional library services, computer experience, and demographic information. There were also two open-ended questions that asked for input on improving the TBR Virtual Library and suggestions for distance library resources and services available to students enrolled in the Regent Online Degree Programs. The open-ended questions on the survey provided the respondents with an opportunity to make general comments. A variety of suggestions, comments, and complaints were given.

With a commitment to testing for content validity and clarity the researcher requested professional reviewers, student reviewers and librarians to serve as jurors to evaluate the survey. According to Fowler Jr., “good question evaluation prior to actually doing a survey is a critical part of good survey practice. It is one of the least expensive ways to reduce error in survey estimates” (Fowler Jr., 1993, p. 104). The four professional reviewers were recognizable experts in survey design, assessment and evaluation, or online course delivery. The five student reviewers had taken at least one online course within the last two years. The five librarians had experience in distance library services. After feedback was obtained and reviewed from all jurors the researcher implemented the necessary changes to the instrument.

Pilot Test

The purpose of the pilot test was to address face validity and verify the clarity of the instrument. The pilot test of the survey instrument was administered during the fall semester of 2001. The survey instrument was piloted to students enrolled in two different online courses offered from institutions within the TBR system with similar characteristics. According to Fowler, “in surveys, answers are of interest not intrinsically but because of their relationship to something they are supposed to measure. Good questions are reliable (providing consistent measures in comparable situations) and valid (answers correspond to what they are intended to measure)” (Fowler Jr., 1993, p. 69). Revisions and additions to the instrument were based upon the feedback from the pilot study group. The revised instrument was submitted to the dissertation committee for final approval.

Procedure

Approval from the Tennessee Board of Regents was requested and granted prior to administering the online survey. The IRB Form (Appendix B) along with the instrument was submitted to the University of Tennessee Departmental Review Committee requesting exemption from the IRB Review for research projects involving human subjects. The exemption was granted on August 30, 2001.

During the weeks that followed, the TBR/RODP representative and the researcher discussed the logistics of making the online survey available to all students enrolled in courses offered through the Regents Online Degree Programs during the fall semester of 2001. The TBR/RODP representative decided to take responsibility for informing the RODP instructors teaching courses of the research project and the upcoming link that would be added to their course sites. It was the responsibility of the researcher to then provide the RODP Webmaster with the needed information to be placed on each RODP course site. The RODP Webmaster was responsible for adding the link labeled *RODP Students Win a \$50 Online Gift Certificate from Amazon.com—Distance Library Services Survey* to all course sites. Clicking on the link opened a new window that revealed the research project description (Appendix C). The link to the online survey, labeled *Click here to take the Distance Library Services Survey*, was placed at the bottom of the research project description. However, participants were not able to access the survey until the stated start date of the online survey. Any participant attempting to access the survey would get a message stating that the survey was unavailable until November 19, 2001.

On November 19, 2001 the link to the online survey was made active on all courses offered through the Regents Online Degree Programs during that fall semester. The online survey was accessible Monday, November 19, 2001 - Sunday, December 2, 2001. Approximate time to complete the survey was 10 minutes. The online survey site was designed and developed to provide anonymity and confidentiality to the participant. The participant linked to a password protected survey site from within their Regents Online Degree Program course site (e.g., DSPM0850—Elementary Algebra). After clicking on the survey link, a new browser window opened requesting a username and a password. The username and password were provided in the research project description of the Distance Library Services Survey. Only a correct username and password opened the web page containing the consent form (Appendix D). The consent form provided information regarding security/confidentiality measures taken, possibility of Internet tampering, coding procedures, reporting and publishing of data, benefits to subjects or others, description of payment/gift to participants, and a statement about the participants rights. The participant was asked to indicate his/her consent to participate in the study by clicking either the *Take the Survey* link or the *No, I do not want to take this survey* link. If the participant clicked the *Take the survey* link then the online survey opened and the participant was allowed to begin taking the survey. If the participant clicked the *No, I do not want to take this survey* link then a page appeared with a thank you message and the participant was instructed to close the browser window.

After completing the survey the participant had three options: clear responses, exit without submitting, or submit the survey. If the participant chose to clear responses, all responses were deleted from the survey. If the participant chose to exit without submitting the survey, a logout message (see Appendix A) appeared. If the participant chose to submit the survey, a processing data message (see Appendix A) appeared and the participant was given an opportunity to enter a drawing for an online gift certificate or exit the online survey site. Each participant was only allowed to enter the drawing once. An email address was required to enter the drawing. The email address was not stored with the data. The participant was required to use the same email address that they used in their RODP course to ensure that the participant was actually enrolled in a RODP course. Anyone with multiple submissions was eliminated from the drawing. After clicking the *Enter Me in the Drawing* link the participant's email address was added to a file and a page appeared with a thank you message (see Appendix A) and the participant was instructed to close the browser window. Participants not interested in the drawing could exit without entering; however, their survey responses were captured. The winner of the drawing was contacted and sent the gift certificate on December 9, 2001.

The population of the students at the time the survey was administered was 1,034; 114 (11.03 %) responded. Due to the minimal response rate the researcher investigated possible biases that may be associated with the nonresponses. "The effect of nonresponse on survey estimates depends on the percentage not responding and the extent to which those not responding are biased—that is, systematically different from

the whole population. If most of those selected provide data, sample estimates will be very good even if the nonrespondents are distinctive” (Fowler Jr., 1993, p. 40).

According to Fowler, people are more likely to respond if they have an interest in the subject matter or the research itself; therefore, low response rates may be related to the purpose of the research.

In hopes of uncovering possible biases that may be related to the low response rate the researcher developed a questionnaire for faculty teaching courses offered through the Regents Online Degree Programs. There were eight questions on the Faculty Distance Library Services Survey. The TBR/RODP representative administered the survey to all RODP faculty one week after the Distance Library Services Survey was removed from the course site. The survey required approximately two minutes to complete. The questions were written to determine whether RODP faculty were requiring students enrolled in the Regents Online Degree Programs to complete library assignments, which may require the students to visit the TBR Virtual Library or their Home School Library. The questionnaire also inquired of faculty use of the TBR Virtual Library and their Home School Library web site for their own research. The results are presented in Chapter V.

Data Analysis

Data were analyzed using SPSS 10.0 for Windows. Descriptive statistical analysis was used for all Likert, continuous, and categorical data. Means and standard deviations were reported for the Likert and continuous data and frequency and percentage was reported for categorical data. MANOVA was used to test if perception

regarding distance library services and traditional library services differs by gender, occupational status, educational level, and academic status. ANOVA was used to test for possible differences. A correlation was also ran to compare age with level of satisfaction and a t-test was ran in order to test overall perceptions of students regarding library resources and services and services available. All data analysis results are presented in Chapter IV.

Summary

The purpose of this study was to determine the perceptions and attitudes with regard to library services available to students enrolled in the Regents Online Degree Programs. The methods and procedures utilized in this study provided data to determine the perceptions and attitudes of students regarding traditional and distance library services and determine if the outcomes resulting from the library services provided in the distance programs are equivalent to those outcomes for on-campus programs. The data also provided the information necessary for enhancing and improving the effectiveness of these online degree programs.

CHAPTER IV

ANALYSIS OF DATA

Introduction

This chapter presents analysis of data collected from an online survey instrument developed by the researcher. The survey instrument was administered to students enrolled in the Regents Online Degree Programs to assess their perceptions and attitudes regarding library services available to distance education students. A pilot study of the survey instrument was conducted with a similar group of students enrolled in online courses offered from institutions within the Tennessee Board Regents system.

This chapter is organized into the following sections:

- 1) Demographic Characteristics
- 2) Specific Research Questions
- 3) Responses to Research Questions
- 4) Chapter Summary

The purpose of this study was to conduct exploratory research utilizing the perceptions and attitudes of students enrolled in the Regents Online Degree Programs with regard to their experience with library services. The ultimate purpose was to determine if the outcomes resulting from the library services provided in the Regents Online Degree Programs are equivalent to those outcomes for on-campus programs and

to provide information necessary for enhancing and improving the effectiveness of the Regents Online Degree Programs. Specifically, the relationship between the level of satisfaction with distance library services and traditional library services as well as computer confidence, computer experience, age, gender, academic status, and educational background was analyzed. These findings are discussed in greater detail along with conclusions and recommendations for further study in Chapter V.

Demographic Characteristics

The majority who responded to the survey were Non-Hispanic-White females. The profile of the students who responded to the survey as reported in **Table 1** was as follows: 81.4 percent were female, 18.6 percent were male; 84.8 percent were Non-Hispanic-White, 8.9 percent were black, and 6.3 were other; 77.9 percent were employed, 18.6 were unemployed; 3.5 were other. The minimum age was 18 and the maximum age was 55. The mean age was 33 and the standard deviation was 8.56.

The frequency and percentage of demographic characteristics related to education are reported in **Table 2** as follows: 57.2 percent were under classmen, 41.1 percent were upper classmen, and 1.8 percent were graduate students; 23.4 have a degree, 58.6 have had some college, 1.8 have attended trade or vocational school, and 16.2 have a high school diploma or GED; 51.3 percent enrolled in fewer than 9 hours and 48.7 enrolled in 9 or more hours; 77.5 of the respondents were pursuing an Associate degree and 22.5 percent were pursuing a Bachelors degree. The majority (68.1 percent) of the respondents were pursuing a Regents degree.

Table 1. Frequency and percentage of demographic characteristics of population sample.

Characteristic	Category	Frequency	Percent
Gender (N = 113)	Female	92	81.4
	Male	21	18.6
Race (N = 112)	American-Indian-Alaska-Native-Eskimo	1	0.9
	Black-African-American	10	8.9
	Hispanic-Spanish-Origin	1	0.9
	Non-Hispanic-White	95	84.8
	Other	5	4.5
Occupational Status (N = 113)	Full-time	71	62.8
	Part-time	14	12.4
	Self-employed	3	2.7
	Not-employed	21	18.6
	Other	4	3.5

Note. Percentages do not always equal 100 due to rounding.

Table 2. Frequency and percentage of demographic (Education) characteristics of population sample.

Characteristic	Category	Frequency	Percent
Academic Status (N = 112)	Freshmen	30	26.8
	Sophomore	34	30.4
	Junior	25	22.3
	Senior	21	18.8
	Graduate	2	1.8
Highest Educational Level (N = 111)	High School or GED	18	16.2
	Trade/Vocational School	2	1.8
	Some College	65	58.6
	Associate Degree	21	18.9
	Bachelor Degree	3	2.7
	Master Degree	2	1.8
Hours Enrolled (N = 113)	1-3	17	15.0
	4-6	29	25.7
	6-9	12	10.6
	9-12	21	18.6
	12+	34	30.1
Degree pursuing (N = 80)	Associate of Applied Science	14	17.5
	Associate of Arts	31	38.8
	Associate of Science	17	21.3
	Bachelor of Professional Studies	6	7.5
	Bachelor of Interdisciplinary Studies	12	15.0

Note. Percentages do not always equal 100 due to rounding.

Specific Research Questions

The specific research questions to be discussed are as follows:

1. What are the levels of usage and satisfaction with regard to the TBR Virtual Library? (Survey Item: 5).
2. How do overall levels of usage and satisfaction differ between distance library services and traditional library services for students? (Survey Item: 8).
3. How do levels of satisfaction regarding distance library services and traditional library services differ by level of computer confidence for students? (Survey Items: 8,18).
4. How do levels of satisfaction regarding distance library services and traditional library services differ by level of computer experience for students? (Survey Items: 8, 20).
5. How do levels of satisfaction regarding distance library services and traditional library services differ by level of demographic characteristics for students? (Survey Items: 8, 21, 22, 23, 24, 25, 26, and 27).
6. How do overall perceptions differ between library resources and services available through the student's Home School Library and the TBR Virtual Library for students? (Survey Items: 9, 10).
7. What is the perception of students with regard to equivalency of library resources and services available through the TBR Virtual Library and a traditional on-campus library? (Survey Item: 11).
8. What are the suggestions of students for improving library resources and services available to students enrolled in courses in the Regents Online Degree Programs? (Survey Items: 12, 13).

There are additional items on the survey that may not appear directly related to a specific research question, however, the items were included because it is the feeling of the researcher that the items would provide additional information. Subsequently, the additional items added to the final analysis of data. As an example: two of the

questions focus on access to the students Home School Library. The participant is asked if they have accessed or connected to their Home School Library website the current semester and if yes, how did they access their Home School library site. There were 60.5 percent who responded that they had not accessed or connected to their Home School Library website during the current semester. Students were also asked how they accessed or connected to their Home School Library. In **Table 3** are responses to what method the students used to access or connect to their Home School Library website. Over 56 percent of the students who responded accessed their Home School Library website by clicking on the library link on their Home School website. Also important is where the students accessed their library website. **Table 4** shows where students accessed the library website. The study revealed that 96.5 percent of the students participating in the survey connected to their library website at home while 52.6 percent of that same group connected from their workplace as well. This is not surprising because 98.2 percent of the respondents own computers. However, only 25 percent of the respondents have previously taken an online course, while 82.3 percent of the respondents have previously taken an on-campus course; therefore, they have likely had experience with library services and resources available both through their on-campus library and the library website.

Table 3. Frequency and percentage of method of access to your Home School Library website this semester?

Access Method	Frequency	Percent
Click library link on Home School website	28	56
Click link on your course site	8	16
Click link on TBRVL site	12	24
Other	2	4
Total	50	100

Table 4. Count and percentage of access location to library website.

Access Location	Count	Percent
Home	110	96.5
University Library	14	12.3
University Computer Lab	11	9.6
Work	60	52.6
Community Facility	11	9.6
Office Center	0	0
Other	8	7.0

Note. Respondents selected all that applied; therefore, percent will not total 100.

There were also four lead-in questions on the survey instrument that concern the respondents' awareness of the TBR Virtual Library. These survey items provide important information regarding the participants' experience with the TBR Virtual Library. The findings reveal that 99.1 percent responded that they had a link to the TBR Virtual Library on their course site and 76.3 percent responded that their instructor had suggested that they visit the TBR Virtual Library in an email, discussion, chat or syllabus, etc. Only 37.7 percent responded that their instructor gave an assignment requiring that they access the TBR Virtual Library, yet 63.2 percent of that same group responded that they had accessed the TBR Virtual Library. Recommendations were made based upon the data collected during the evaluation process and will be discussed in detail in Chapter V.

Responses to Research Questions

Research Question 1

What are the levels of usage and satisfaction with regard to the TBR Virtual Library?

There were 73 students who responded to the survey item related to this research question. A look at the usage in **Table 5** reveals that 75 percent of the respondents or greater used the *Quick Reference*, *Library Catalog*, *Electronic Database*, and the *Search the Internet* library resources available on the TBR Virtual Library website. Approximately 60 percent of the respondents used the “*How To*” *Guides*, *About Us Information*, and the *Document Delivery* library resources while only 51.4 percent used the *Need Help?* resource on the TBR Virtual Library website. Respondents were asked to rate their level of satisfaction with the TBR Virtual Library. A 5-point Likert scale was used with available choices ranging from very satisfied (5) to very dissatisfied (1). For purposes of this analysis the researcher made the assumption that the data was interval data. If respondents did not use the resource then they were asked to select Didn’t Use (0) on the survey. The analysis shows that all respondents were neutral to satisfied with the TBR Virtual Library.

Table 5. Usage and satisfaction levels of resources and services available through the Tennessee Board of Regents Virtual Library.

Library Resource/Service	Usage	Satisfaction	
	Percent	Mean	Std. Dev.
Quick Reference	79.50	3.90	.810
Library Catalog	78.10	3.86	.789
Electronic Database	94.50	3.87	.984
Document Delivery	58.90	3.88	.981
Search the Internet	75.30	4.02	.757
Need Help?	51.40	3.76	.955
"How To" Guides	60.30	3.68	.857
About Us Information	60.30	3.84	.776

Note. 73 respondents

Research Question 2

How do overall levels of usage and satisfaction differ between distance library services and traditional library services for students?

A look at the usage in **Table 6** shows that distance library resources that generally involve computer use, even in a traditional library setting, such as accessing the library catalog (81.8 percent), finding articles (80.0 percent), searching electronic databases (76.4 percent), and accessing electronic journals (74.10) are used slightly more than those same traditional library resources. One exception found was accessing electronic books. Respondents used the distance resource to access electronic books 60.0 percent of the time while using the traditional library resources 66.0 percent of the time. Not surprisingly, participants responded that they used traditional library resources and services for those library resources and services that generally require interaction with a librarian or other library staff. Approximately 10 percent of the time,

Table 6. Usage of resources and services available through Distance Library Services and Traditional Library Services.

Resource/Service	Distance Percent	Traditional Percent
Access to library catalog	81.80	77.10
Access to articles	80.00	73.90
Access to electronic databases	76.40	68.10
Access to electronic journals	74.10	66.00
Access to electronic books	60.00	66.00
Availability of reference librarian	48.10	60.90
Timeliness of answers to reference questions	49.10	61.70
Value of information provided by reference librarian	49.10	61.70
Ability to borrow books, etc.	38.20	45.70
Interlibrary loan	32.70	42.60

Note. 55 responded to distance library service survey items. 47 responded to traditional library service survey items.

participants were more likely to use the traditional library services for the following resources and services: availability of reference library (60.9 percent), timeliness of answers to reference questions (61.70 percent), value of information provided by reference librarian (61.7 percent), ability to borrow books, etc. (45.7 percent), and interlibrary loan (42.6 percent).

Table 7 shows the level of satisfaction participants experienced with Distance Library Services (DLS) and Traditional Library Services (TLS). A 5-point Likert scale was used with available choices ranging from very satisfied (5) to very dissatisfied (1). If respondents did not use the resource then they were asked to select Didn't Use (0) on the survey. The analysis shows that the majority of participants who responded to the survey were neutral to satisfied with DLS. The means ranged from 3.44 to 4.09. Regarding TLS, the majority of participants who responded to the survey were satisfied to very satisfied. The means for TLS ranged from 3.70 to 4.14. Overall means and

Table 7. Levels of satisfaction between Distance Library Services (DLS) and Traditional Library Services (TLS).

Resource/Service	Distance		Traditional	
	Mean	Std. Dev	Mean	Std. Dev
Access to library catalog	4.09	.793	4.14	.887
Access to articles	3.75	1.014	4.09	.900
Access to electronic databases	3.95	.962	4.03	.861
Access to electronic journals	3.90	.955	3.97	.836
Access to electronic books	3.85	.972	3.74	1.094
Availability of reference librarian	3.88	.952	4.11	.567
Timeliness of answers to reference questions	3.81	.921	4.03	.626
Value of information provided by reference librarian	3.93	.730	3.90	.772
Ability to borrow books, etc.	3.52	.87)	3.95	.865
Interlibrary loan	3.44	.922	3.95	.826

standard deviations were determined. The Overall Distance Library Services Satisfaction Level (DLS_SAT) had a mean of 3.81 and a standard deviation of .843 while the Overall Traditional Library Services Satisfaction Level (TLS_SAT) had a mean of 3.98 and a standard deviation of .631. Therefore, participants were neutral to satisfied with DLS and TLS.

Overall means and standard deviations for the 32 respondents who answered survey items for both DLS and TLS were also determined. The DLS_SAT had a mean of 3.80 and a standard deviation of .746. The TLS_SAT had a mean of 4.02 and a standard deviation of .622. No significant difference between overall DLS and overall TLS was found, $t = -1.675$, $df=31$, $p= .104$.

Research Question 3

How do levels of satisfaction regarding distance library services and traditional library services differ by level of computer confidence for students?

There were 113 who responded to the computer confidence question. A 5-point Likert scale was used with available choices ranging from very confident (5) to no confidence whatsoever (1). The analysis revealed that 78.8% of the respondents were very confident about using a computer; 14.2% of the respondents were confident about using a computer; and 7.0% of the respondents felt that they had some confidence about using a computer. Out of the 113, 93% responded as very confident or confident; therefore, there was not enough spread in the data to find a relationship. Only 32 responded to DLS, TLS and computer confidence. So there is little effect because 28 of the 32 (87.5%) were very confident; therefore, we did not have enough data to detect if the levels of satisfaction regarding distance library services and traditional library services differ by level of computer confidence for students.

Research Question 4

How do levels of satisfaction regarding distance library services and traditional library services differ by level of computer experience for students?

Presented in **Table 8** are the means and standard deviations regarding participants' level of computer experience. A 5-point Likert scale was used with available choices ranging from extremely experienced (5) to no experience (1). Respondents were most experienced with sending an email (4.78) and least experienced with participating in a chatroom (3.69). However, the analysis shows that the majority

Table 8. Means and standard deviations -- Computer Experience

Computer Activity	Mean	Std. Dev.
Sending an email	4.78	.495
Posting to a discussion board	4.42	.832
Participating in a chatroom	3.69	1.389
Using the Internet to purchase goods/services	4.21	1.056
Using the Internet for research or homework	4.55	.707
COMPEXP (Collapsed to show overall computer experience)	4.33	.697

of the respondents were very experienced to extremely experienced with computers.

All computer activities were collapsed to show overall computer experience

(COMPEXP). DLS, $r = .042$, $p = .776$; TLS, $r = .184$, $p = .268$. There was no significant difference found.

Research Question 5

How do levels of satisfaction regarding distance library services and traditional library services differ by level of demographic characteristics for students?

A Multiple Analysis of Variance (MANOVA) was run to determine if levels of satisfaction regarding distance library services (DLS) and traditional library services (TLS) differ by level of demographic characteristics for respondents. The MANOVA was used to see the main effects of the categorical variables (demographics) on the multiple dependent interval variables (DLS; TLS).

The findings revealed that there was no significant difference between gender and DLS or gender and TLS. Presented in **Table 9** are the results of the MANOVA.

The findings revealed that there was no significant difference between occupational status and DLS or occupational status and TLS. Presented in **Table 10** are the results of the MANOVA.

The findings revealed that there was no significant difference between educational level and DLS or educational level and TLS. Presented in **Table 11** are the results of the MANOVA.

Table 9. Gender - Means (N=32)

Variable		Mean
DLS_SAT	Female	3.878
	Male	3.642
TLS_SAT	Female	4.121
	Male	3.807
F (2,29) = .910, p = .414		

Table 10. Occupational Status - Means (N=31)

Variable		Mean
DLS_SAT	Full-time	3.904
	Part-time	3.876
	Not-employed	3.512
TLS_SAT	Full-time	4.048
	Part-time	3.784
	Not-employed	4.313
F (4,54) = 1.454, p = .229		

Table 11. Educational Level - Means (N=32)		
Variable		Mean
DLS_SAT	High School diploma or GED	3.917
	Some college	3.875
	Associate degree	3.393
TLS_SAT	High School diploma or GED	3.833
	Some college	4.077
	Associate degree	3.874
F (4,56) = .559, p = .693		

Presented in **Table 12** are the results of the MANOVA. An ANOVA was run and showed that there is a possible difference in DLS [DLS, $F(3,28) = 3.846$, $p = .020$]. Looking at the means revealed that freshmen appear to have the highest level of satisfaction with DLS; followed by sophomores, seniors, and juniors. There was no significant difference in academic status and TLS, $F(3,28) = 1.243$, $p = .313$. Tukey was not run because the MANOVA indicated only a marginal difference.

The findings revealed that there was no significant difference between those students seeking a regents degree and DLS or those students seeking a regents degree and TLS. Seeking Regents degree $F(2,29) = .763$, $p = .476$.

To compare age with satisfaction of distance library services and traditional library services the researcher ran a correlation. The findings revealed that there was no significant relationship between age and DLS or age and TLS. DLS, $r = -.239$, $p = .098$. TLS, $r = -.097$, $p = .561$.

Table 12. Academic Status - Means (N=32)

Variable		Mean
DLS_SAT	Freshmen	4.667
	Sophomore	3.959
	Junior	3.341
	Senior	3.700
TLS_SAT	Freshmen	4.417
	Sophomore	3.865
	Junior	3.812
	Senior	4.162

$F(6,54) = 2.157, p = .062$

Research Question 6

How do overall perceptions differ between library resources and services available through the student's Home School Library and the TBR Virtual Library for students?

A paired t-test was run to determine if the overall perceptions of students differ between library resources and services available through the student's Home School Library and the TBR Virtual Library. Presented in **Table 13** are the findings. There was no significant difference found.

Research Question 7

What is the perception of students with regard to equivalency of library resources and services available through the TBR Virtual Library and a traditional on-campus library?

The students were asked to respond to the following question: Overall, do you feel that the library resources and services available through the TBR Virtual Library are equivalent to the services available in a traditional on-campus library? A 5-point Likert scale was used with available choices ranging from very strongly agree (5) to strongly disagree (1). The findings revealed that respondents were undecided with

Table 13. Overall perceptions - Home School Library, TBR Virtual Library.

	Mean	Std. Dev.
TBRVLSUP	3.75	.826
HSLSUPPN	3.76	.787

$t(104) = .123, p = .902$

regard to equivalency of library resources and services available through the TBR Virtual Library and a traditional on-campus library. The mean was 3.59 and standard deviation was .922. There are several possible conclusions that may be drawn from these results; however, they will be discussed in Chapter V.

Research Question 8

What are the suggestions of students for improving library resources and services available to students enrolled in courses in the Regents Online Degree Programs?

Presented in **Table 14** is a subset of the responses to the following question: In your opinion, in what ways could the TBR Virtual Library be improved. Appendix E contains a complete list of the responses provided by the participants. The responses revealed a variety of suggestions for improving library resources and services available to students enrolled in courses in the Regents Online Degree Programs. In general, the responses revealed a need for training in the use of online library resources, more awareness of the library resources and services that are available, online help, access to a larger variety of journals, and easier access to the TBR Virtual Library. Additional responses provided by the participants will be discussed in Chapter V.

Table 14. Responses to the following question: In your opinion, in what ways could the TBR Virtual Library be improved.

Responses

- 1 Information is too difficult to find. All I was able to find were listings of books.
- 2 The TBR Virtual Library led me to other school libraries. I needed a password to access these libraries and was therefore unable to look up anything except in the electronic database.
- 3 Undecided. Not a bad experience. Just different.
- 4 I do not feel that the TBR Virtual Library needs any type of improvement because they it sufficient and expedient in my need for certain type of information that was pertaining to my online work.
- 5 Finding exactly what you are looking for could be a little easier.
- 6 I could not get into part of the system. I became confused and gave up. I probably should have spent more time learning how to use the system before giving up.
- 7 Better help files. The information was not easily accessible at any level. I am excessively web savvy and could not seem to use the library very well at all. More explanation. That's the big thing.
- 8 Make it clearer somehow of which links get you what type of information. I tend to just go to my favorite internet search engines and bypass the TBR.
- 9 Being more aware of its existence
- 10 I don't see that improvement is needed at this time.
- 11 When a student clicks on the TBR site it should also be connected to the library sites so that students will not have to have additional passwords to log in the library site.
- 12 Training in the use of online resources would be helpful.
- 13 The only problem I ran into was obtaining the password to get into the Library. It was not available when I needed to get it and took a couple of days.
- 14 Maybe have a navigational demo (if one is not already there)
- 15 Did not have a need for the virtual library during this course.

Presented in **Table 15** is a subset of the responses to the following question: In your opinion, what additional library resources/services should be available to online students enrolled in courses in the Regents Online Degree Programs. Appendix F contains a complete list of responses provided by the participants. In general, the responses revealed a need for course specific resources, online textbooks, and access to other libraries. Additional responses provided by the participants will be discussed in Chapter V.

Table 15. Responses to the following question: In your opinion, what additional library resources/services should be available to online students enrolled in courses in the Regents Online Degree Programs.

Responses

- 1 I think it would be hard to improve upon all the resources available on the internet as it is.
 - 2 Didn't use enough to have suggestions / usually went to campus library. Just researched what was available on-line
 - 3 Video tapes to help with lessons
 - 4 I should be able to locate a book in the virtual library and request that it be sent to my local school library for check out or use in the library. If this is possible already it was not clearly communicated.
 - 5 Crash session in use of system.
 - 6 Total access to all the links with passwords necessary to utilize the links.
 - 7 I have no recommendations.
 - 8 Links to professors/classes through the on-line program.
 - 9 I think that all of the resources that are available at the current time are very good to have. I also think that there is no need for improvement at the present time.
 - 10 I think there should be a mandatory tutorial that you take which trains you how to use the system. I gave up out of frustration and went to my local public library rather than using the electronic. For people who are just getting used to the online environment this extra help would be great
 - 11 I have not come across a library need that I couldn't meet with this service as it is.
 - 12 Perhaps a tour of the library's services via an online PowerPoint presentation.
 - 13 Copies of required textbooks should be available online for students.
 - 14 With the library and the web I think there are plenty of resources available.
 - 15 I would like to see microfilm of newspapers from the schools town/city on the website with the availability to view over the internet.
-

Summary

The main purpose of the study was to provide useful feedback from students enrolled in the Regents Online Degree Programs to the administrators of the programs regarding the library resources and services that are available to them. In addition the students' perception regarding equivalency of distance library services available to them and traditional library services was determined. The overall results suggest that students enrolled in the Regents Online Degree Programs were satisfied with the library resources and services that are available to them. However, based on the results I was unable to determine if the students perceived distance library services and traditional library services equivalent. The research question findings will be discussed in greater detail along with the conclusions and recommendations for future research in Chapter V.

C H A P T E R V

DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

A distance education environment affords students a non-threatening setting to acquire and apply knowledge. Given the benefits and convenience of an education offered through distance education programs a growing number of adult learners are choosing this environment to continue their education. Distance education has no geographic boundaries and research has revealed that the expectations far exceed the limitations. Distance learners expect support services; such as library services, that are equivalent to those library services available and accessible to students enrolled in traditional education programs. The library is “crucial for the development of skills and reflexes required for sustaining and advancing knowledge and culture” (Owusu-Ansah, 2001, p. 284). The library is the heart of the educational process and the library services provide the support that learners need to master the research and information retrieval skills necessary to sustain lifelong learning and foster independent learning. According to the ACRL Task Force on Information Literacy Competency Standards, “the development of lifelong learners is vital to the mission of higher education” (Owusu-Ansah, 2001, p. 289). Therefore, as institutions of higher education consider

the development of these lifelong learners they should also strive to provide library services that support their development of these lifelong learners.

The general purpose of this study was to determine the perceptions and attitudes with regard to library resources and services available to students enrolled in the Regents Online Degree Programs. Specifically, the study was designed to determine the perceptions and attitudes of students regarding traditional and distance library services and determine if the outcomes resulting from the library services provided in the distance programs are equivalent to those outcomes for on-campus programs. The ultimate goal of the study was to provide the information necessary for enhancing and improving the effectiveness of the Regents Online Degree Programs. This chapter will include a summary of the procedures, research findings, conclusions, and recommendations for future studies relating to this topic.

Summary of Procedures

The participants in the study were students enrolled in the Regents Online Degree Programs during the fall semester of 2001. The total population at the time the survey was administered was 1034, 114 responded.

The researcher developed the survey instrument to be administered online. The instrument was developed to measure the perceptions and attitudes of students regarding the TBR Virtual Library, their Home School Library, and distance and traditional library resources and services available to them. Additionally, the survey instrument asked students to rate their level of computer experience and computer confidence. The final section was designed to gather demographic information such as

gender, age, race, occupational status, educational level, academic status, course load, and degree aspirations.

A pilot test of the online survey instrument was administered to a group of students with similar characteristics. Feedback and comments received from the pilot study group were included in the revised instrument that was approved by the dissertation committee. The online survey was accessible to students November 19, 2001 through December 2, 2001. Measures were taken in the design phase of the online survey instrument to provide anonymity and confidentiality to the participants. Additional measures were taken to uncover any possible biases related to the low response rate. These measures included developing a distance library services questionnaire for faculty. The survey questions were designed to identify any possible biases that may explain the low response rate. The results of the Faculty—Distance Library Services Questionnaire revealed that over 75 percent of the faculty did not require students to access the TBR Virtual Library and over 80 percent of the faculty did not require students to access their Home School Library. Additional comments and conclusions drawn from these results will be discussed later in this chapter.

Research Findings

Approximately 80 percent of the students who responded were female; minority representation was 14.3 percent; 75.2 percent were working at least part-time; 57.2 percent were underclassmen; over 50 percent had previous college experience; approximately 30 percent were enrolled in twelve or more hours; the majority (68.1 percent) of the students who responded were pursuing a Regents degree.

The following results are summarized according to each research question.

1. What are the levels of usage and satisfaction with regard to the TBR Virtual Library?

The TBR Virtual Library has eight main links to resources/services on their website; *Quick Reference*, *Library Catalogs*, *Electronic Databases*, *Document Delivery*, *Search the Internet*, *Need Help?*, *“How To” Guides*, and *About Us Information*. In terms of usage the survey results reflect that 94.8% of the students used the *Electronic Database* resource, 79.5% used *Quick Reference*, 78.1% used *Library Catalogs*, and 75.3% used *Search the Internet*. All other resources and services were used by at least 58% of the students. The *Need Help?* resource usage was the least, at 51.4%. An important finding was that 99.1 percent of the students responded that a link to the TBR Virtual Library was on their course site. Therefore, students were likely to have visited the TBR Virtual Library site prior to November 19, 2001.

Students were asked to rate their level of satisfaction with resources and services available through the TBR Virtual Library. Ratings ranged from 1 to 5 with 5 as the highest rating possible. The *Search the Internet* resource received the highest rating from students, 4.02. This was followed by *Quick Reference* (3.9); *Document Delivery* (3.88); *Electronic Database* (3.87); *Library Catalog* (3.86); *About Us Information* (3.84); *Need Help?* (3.76); *“How To” Guide* (3.68). Overall results suggest that students were satisfied with the TBR Virtual Library and at least half of the students who responded to the question had used the resources and services available through the TBR Virtual Library.

2. How do overall levels of usage and satisfaction differ between distance library services and traditional library services for students?

The prior library experience of the students qualified them to assess the comparability of distance library services to traditional library services. The survey results reflect that students used distance library services to access the library catalog, articles, electronic databases, and electronic journals slightly more than they used the traditional library services to access those same resources and services. Those resources and services are all similar in that they involve computer use. The exception was accessing electronic books, which also involves computer use. Students used traditional library services for resources and services that generally required interaction with a librarian or other library staff; such as help or feedback from the reference librarian and interlibrary loan.

Students were asked to rate their level of satisfaction with both distance library services and traditional library services. The findings show that the satisfaction level of students regarding distance library services ranged from neutral to satisfied. The satisfaction level of students regarding traditional library services also ranged from neutral to satisfied. The overall level of satisfaction for distance library services was neutral while the overall level of satisfaction for traditional library services was satisfied. However, there was no significant difference found between students' perceptions of distance library services and traditional library services.

3. How do levels of satisfaction regarding distance library services and traditional library services differ by level of computer confidence for students?

Students were asked to rate their level of computer confidence. 113 students responded to the question regarding level of computer confidence. Over 78.0% of those students responded that they were very confident about using a computer. However, only 32 students responded to the questions regarding distance library services, traditional library services, and computer confidence. Therefore, sufficient data were not gathered to detect if the levels of satisfaction regarding distance library services and traditional library services differ by level of computer confidence for students.

4. How do levels of satisfaction regarding distance library services and traditional library services differ by level of computer experience for students?

The computer experience of the students was determined by asking students to rate how much experience they had with five computer related activities. The findings show that students were very experienced with sending email, using the Internet for research or homework, posting to a discussion board, and using the Internet to purchase goods/service. Students were moderately experienced with participating in a chatroom. Overall students were moderately to very experienced with the computer activities. However, there was no significant difference found between students' perceptions of distance library services and their level of computer experience. Also, there was no significant difference found between students' perceptions of traditional library services and their level of computer experience.

5. How do levels of satisfaction regarding distance library services and traditional library services differ by level of demographic characteristics for students?

The findings revealed the following:

- No significant difference between age of students and level of satisfaction with distance library services or traditional library services.
- No significant difference between gender of students and level of satisfaction with distance library services or traditional library services.
- No significant difference between occupational status of students and level of satisfaction with distance library services or traditional library services.
- No significant difference between educational level of students and level of satisfaction with distance library services or traditional library services.
- No significant difference between academic status of students and level of satisfaction with traditional library services; however, there was a marginal significant difference revealed when looking at academic status of students and level of satisfaction with distance library services.

6. How do overall perceptions differ between library resources and services available through the student's Home School Library and the TBR Virtual Library for students?

The students were asked about their perception of the library resources and services available through the TBR Virtual Library. Specifically, they were asked if they feel that the library resources and services available through the TBR Virtual Library were adequate to support their needs. The findings revealed that students perceive that the library resources and services available through the TBR Virtual Library were adequate to support their needs. Students were also asked about their perception of the library resources and services available through their Home School Library. The findings also

revealed that students perceive that the library resources and services available through the Home School Library were adequate to support their needs. Overall, there was no significant difference in the students' perception of library resources and services offered through the TBR Virtual Library and library resources and services offered through their Home School Library.

The TBR/RODP representative provided the researcher with baseline data taken from a survey administered to students the same semester. There were two questions that were related to the TBR Virtual Library and library services. The first question asked the students to rate their experience with using the TBR Virtual Library for class assignments. There were 48 percent who responded that they were unable to rate. The second question asks students to rate their experience with finding information and library references for their assignments. There were 46 percent who responded that they were unable to rate. The responses indicate that approximately half of the students had little experience using the library resources available through the TBR Virtual Library.

7. What is the perception of students with regard to equivalency of library resources and services available through the TBR Virtual Library and a traditional on-campus library?

Students were asked if they felt that the library resources and services available through the TBR Virtual Library were equivalent to the library resources and services available in a traditional on-campus library. The study findings show that students were undecided whether the library resources and services available through the TBR

Virtual Library were equivalent to the library resources and services available in a traditional on-campus library.

8. What are the suggestions of students for improving library resources and services available to students enrolled in courses in the Regents Online Degree Programs?

As discussed in Chapter III, the purpose of the open-ended questions was to provide the students with an opportunity to make comments and suggestions that would be passed on to the administrators of the Regents Online Degree Programs. The following open-ended questions were asked: *In your opinion, what additional library resources/services should be available to online students enrolled in courses in the Regents Online Degree Programs; In your opinion, in what ways could the TBR Virtual Library be improved.* Overall, responses were very positive regarding the library resources and services available to students enrolled in the Regents Online Degree Programs. Suggestions for additional resources and services that will better serve students and improve the present resources and services were provided. Also, students provided problems encountered while attempting to use the library services available to them as students enrolled in the Regents Online Degree Programs.

Regarding the TBR Virtual Library, students' responses ranged from "very pleased" to "I could not get into part of the system". Students commented on wanting more or a broader range of resources to improve the TBR Virtual Library:

- "More complete books online"
- "Giving more information on it in the syllabus"

- “I would like to see even more information offered with the ability to print it directly off of the computer so that I don’t have to actually go to the library”
- “by adding more available articles web sites with information etc.”
- “More information and less ‘down’ time”

Students also provided feedback that indicate a need for help files and instructions on using the TBR Library:

- “Better help files. The information was not easily accessible at any level...More explanation”
- “Instructions for use that are simpler to read and understand”
- “Training in the use of online resources would be helpful”
- “Maybe have a navigational demo”
- “Guidance and improvement of exactly where to find certain types of information”

Other responses revealed that students were not required to complete research using the TBR Virtual Library. The students’ responses also indicated that their unfamiliarity and lack of experience using the TBR Virtual Library possibly made them reluctant to offer any suggestions for improvements.

Below are several specific suggestions for additional library resources and services available to students in the Regents Online Degree Programs:

- “Copies of required textbooks should be available online for students”
- “Video tapes to help with lessons”
- “Would like to see more biological/medical journal articles available”

- “Code examples for programming classes”
- “Software that is required for courses could be available for check out aiding the students in not having to purchase expensive software for one course”
- “Links to professors/classes through the on-line program”
- “I think there should be a mandatory tutorial that you take which trains you how to use the system”
- “Perhaps a tour of the library’s services via an online PowerPoint presentation”

The responses revealed that some students enrolled in the Regents Online Degree Programs would like to have additional resources and services made available to them and there is room for improvement. However, the responses also reveal that some students were extremely pleased with the resources and services and had no recommendations for improvements or additional resources and services.

Conclusions

Students enrolled in the Regents Online Degree Programs in the fall 2001 overall were satisfied with the library resources and services available to them as distant learners. Students were also satisfied with the resources and services offered through the TBR Virtual Library and their Home School Library. However, the usage rate of the TBR Virtual Library may be misleading. Given that only 37.7 percent of the students responded that their instructor had given an assignment requiring them to access the TBR Virtual Library. Therefore, it is most unlikely that the 63 percent that

responded that they had accessed the TBR Virtual Library were using the resources and services available through the website to complete an assignment for a course. It is more likely that those students who responded that they used the TBR Virtual Library were just exploring the links on their course site, since 99.1 percent of the students responded that they had a link to the TBR Virtual Library on their course site. The results of the Faculty—Distance Library Services Questionnaire also point to the same conclusion regarding usage.

The results of the Faculty—Distance Library Services Questionnaire reveal that 77.1 percent of the RODP faculty did not give an assignment that required students to access the TBR Virtual Library; 82.7 percent of the RODP faculty did not give an assignment that required students to access their Home School Library; and 80.0 percent of the faculty have links to the Internet to support their course material. These findings substantiate what was stated previously in the literature review. The literature review revealed that faculty do not require students to use material other than the assigned textbook for research, faculty may think that the Internet has everything the student will ever need, distance librarians must educate faculty on the needs of distance learners, and it is important to incorporate assignments that require students to use the library (Adams et al., 1998; Kirk & Bartelstein, 1999; Lebowitz, 1997). Based on the results of the Faculty—Distance Library Services Questionnaire students enrolled in the RODP are not utilizing the library resources and services to complete assignments at the usage level revealed in this study.

The results of the Faculty—Distance Library Services Questionnaire also uncovers possible biases associated with the low response rate. In the literature review, Fowler (1993) contends that people are more likely to respond if they have an interest in the subject matter or the research. Therefore, one conclusion reached was that the students enrolled in the RODP had little interest in distance library services. Another conclusion that may be drawn from the results is that students enrolled in the RODP were rarely asked to complete assignments requiring library use; therefore, they did not view themselves as a user of distance library services. The latter is most obvious because students may not feel qualified to evaluate something they have not used and the baseline data supports this conclusion as well.

The results of this study indicated that the students did not perceive that the distance library services were different from the traditional library services. Possible reasons underlying this perception may be that approximately 85 percent of the students had prior college experience or had completed a degree. Therefore, students most likely were familiar with today's library services. A number of the library resources and services available today require the use of a computer. Catalogs, databases, journals, and books are accessible online. Even traditional library services offered on campus require the use of a computer; therefore, the difference that students experience is the location from where they access the resources and services. This is not the case with resources and services that require a librarian or library staff person. The results show that students were satisfied more often with traditional library services when interaction with a librarian or library staff was required. The result for interlibrary loan

was somewhat curious because many of the libraries today have online interlibrary loan services. Therefore one would expect students to respond in a similar manner as they responded to other resources and services that were online and required the use of a computer.

The literature revealed that experience with computer activities; such as using the Internet, sending email and posting to discussion boards are generally prerequisites for students enrolling in online degree programs. The Internet is considered an information resource while email is a means of communication, and discussion boards allow interaction in the online world. Therefore, it is not surprising that the findings reveal that students were very experienced with these computer activities and 93 % of the students who responded were very confident or confident about using a computer. An interesting aspect of this study was that the students' perception of distance library services and traditional library services did not differ by level of computer experience. The expectation was that the level of computer experience of the students would reveal a difference in their perception of distance library services and traditional library services. A possible reason for the results may lie with the fact that many of the traditional library resources and services available today require the use of a computer as well. Unfortunately, sufficient data were not gathered to detect if students' perceptions of distance library services and traditional library services differed by their level of computer confidence.

Interestingly, the results of the study indicated no significant difference between the demographic characteristics of students and their level of satisfaction with distance

library services and traditional library services. Freshmen were found to have the highest level of satisfaction, which may suggest that they had previous experience with distance library services. These results may indicate that the majority of the students who completed the survey had similar perceptions regarding distance library services and traditional library services. The researcher expected to find differences for those students with prior college experience versus those without, non-traditional students who were returning to an educational setting versus traditional students who had prior online and computer experience in high school, and those enrolled full-time versus those enrolled part-time. However, no differences were found.

Another interesting result of the study was that students did not perceive a difference in the library resources and services available through the TBR Virtual Library and the library resources and services available through their Home School Library. The TBR Virtual Library may not include all of the resources and services that a Home School Library may include. Although there are useful resources and services available on the TBR Virtual Library website this researcher does not see it as a replacement for a student's Home School Library. The data supports the fact that students may have only visited the website out of curiosity, given the link was on their course site. Therefore, their perception may have been based on the presence or availability of the resources or services.

Lastly, the researcher concludes that students did not feel as if they had enough experience with the TBR Virtual Library to make a decision as to whether or not the library resources and service available through the TBR Virtual Library were

equivalent to the library resources and services available in a traditional on-campus library. The results from the baseline data reveal similar results. The researcher concludes that students may have only visited the TBR Virtual Library website and actually had little or no experience using library resources to complete assignments.

Recommendations and Suggestions for Future Research

The following recommendations have been developed as a result of analyzing the data collected for this study:

1. Continue to assess the perceptions of students enrolled in the Regents Online Degree Programs regarding library resources and services. Given the newness of the Regents Online Degree Programs continued feedback is necessary to understanding the needs of the students.
2. Provide the additional library resources and services that students perceive to be important to improve the Regents Online Degree Programs.
3. Identify faculty who have a desire to teach in an online environment. Next, educate those faculty on the needs and expectations of distance students.
4. Encourage faculty to develop courses that include a research requirement.
5. Establish a partnership between faculty (course developers) and librarians in order to provide guidance and meet the new challenges of the distant learners.
6. Develop an online library orientation for students enrolled in the Regents Online Degree Programs.

7. Develop marketing strategies that focus on the support services, including library services, available to distant learners. The literature revealed that students tend to seek out services only when needed. Therefore, they often do not know the many services that are available to them.

The following suggestions are made for future research:

1. Replicate this study with students who are currently enrolled in the Regents Online Degree Program to provide additional information that will enhance and improve the effectiveness of the Regents Online Degree Programs. Make the following change to the study: implement a procedure that enables an increase in the sample size.
2. Conduct a follow-up study that assesses the perception of students regarding other student services; such as advising, admissions, technical support, and counseling and placement. Given the increasing number of students enrolling in the Regents Online Degree Programs and the requirements set forth by accrediting agencies indicating that institutions of higher education must provide distant students with support services that are equivalent to those offered on a traditional campus a follow-up study of this type is needed.
3. Replicate this study with students enrolled in other statewide online degree programs to provide data that may refute or substantiate the findings of this study. Modification will need to be made to the survey to remove all references of the TBR Virtual Library.

Summary

Distance education students demand and expect libraries to meet their needs. As these demands and expectations are explored new library services and resources will emerge to meet the needs of these users. The literature revealed that many institutions are proactive in that they are improving and modifying library resources and services for distance education students before the request is made. The ACRL Guidelines will have an enormous impact on distance library services available to students enrolled in these online degree programs. According to Davis “in part, this focus on service can be attributed to increasing scrutiny by accrediting agencies, which are requiring evidence of library support for distance education students that is equivalent to service provided on campus”(Davis, 2000, p 6). Evidence must be provided for accrediting agencies to give their stamp of approval of these distance education programs. This is not too much to ask of institutions and statewide distance education programs because neither diplomas nor resumes are stamped on-campus or off-campus education. Therefore, “the reputation and integrity of an institution is brought into question when it does not require the same rigor, including that of library research, from distance education/off-campus students as it does from on-campus students” (Lebowitz, 1997). Institutions of higher learning must have a commitment to providing distance students with the same quality of education and equivalent support services as on-campus students if they expect those outside the educational arena to respect degrees obtained through this means of educational learning.

REFERENCES

REFERENCES

Adams, K., Bicknell-Holmes, T., & Latta, G. F. (1998, August). Supporting distance learners and academic faculty teaching at a distance. Paper presented at the In Distance Learning '98, Madison, WI.

Adams, K., & Cassner, M. (1998, ED 427 776). Library services to distance education students at UNL. Paper presented at the Joint Nebraska Library Association College and University Section/Iowa Library Association ACRL Chapter Spring Meeting, Des Moines, IA.

Alexander, L. B., & Smith, R. C. (2001). Research findings of a library skills instruction web course. Portal: Libraries and the Academy, 1 (3), 309-328.

Association of College & Research Libraries. (2001, January 1). Guidelines for distance learning library services. Available: <http://www.ala.org/acrl/guides/distlrng.html> [2001, October 6].

Blackmore, J. (1996). Pedagogy: Learning styles: Adult learning styles. Available: <http://slis6000.slis.uwo.ca/~jzelwiet/diglib/styl-c.htm> [2000, February 2].

Board of Regents of the University System of Georgia. (2001, December 11). GALILEO: Georgia's Virtual Library. Available: www.galileo.usg.edu [2003, January 5].

Brockett, R. G., & Hiemstra, R. (1991). Self-direction in adult learning: Perspectives on theory, research, and practice. New York City: Routledge.

Brown, C. D., & Reiseck, C. J. (1994). Improving knowledge production: A model for evaluating off-campus library services. Thresholds in Education, 20 (2-3), 36-39.

Brownlee, D., & Ebbers, F. (2001). Extended library boundaries without losing the personal touch. Journal of Library Administration, 31 (3/4), 67-73.

Caspers, J., Fritts, J., & Grover, H. (2001). Beyond the rhetoric: A study of the impact of the ACRL Guidelines for Distance Learning Library Services on selected distance learning programs in higher education. Journal of Library Administration, 21 (3/4), 127-148.

Caspers, J. S. (1999). Outreach to distance learners: When the distance education instructor sends students to the library, where do they go? The Reference Librarian, 67/68, 299-311.

Cavanagh, A. K. (2001). Providing services and information to the dispersed off-campus student: An integrated approach. Journal of Library Administration, 31 (3/4), 149-166.

Cervone, F., & Brown, D. (2001). Transforming library services to support distance learning: Strategies used by the DePaul University Libraries. College and Research Libraries News, 62 (2), 147-149.

Cline, N. M. (2000). Virtual continuity: The challenge for research libraries today. Educause Review, 35 (3), 22-28.

Commission on Colleges of the Southern Association of Colleges and Schools. (1998). Criteria for accreditation . Decatur, GA.

Consortium for Educational Technology for University Systems. (1997). The academic library in the information age: Changing roles (pp. 1-18). Seal Beach: Consortium for Educational Technology for University Systems.

Council for Higher Education Accreditation. (2001). Directory of CHEA participating and recognized or organizations 2000-2001. Washington, DC.

Davis, H. M. (2000). Distance learning students and library services: Issues, solutions and the Rio Salado College Model. Community & Junior College Libraries, 9 (2), 3-13.

Dew, S. (2001). Knowing your users and what they want: Surveying off-campus students about library services. Journal of Library Administration, 31 (3/4), 177-193.

Digilio, A. H. (1998). Web-based instruction adjusts to the individual needs of adult learners. Journal of Instruction Delivery Systems, 12 (4), 26-28.

Eaton, J. S. (2001). Distance learning: Academic and political challenges for higher education accreditation. CHEA Monograph Series (1), 1-21.

Epper, R. M. (1999). State policies for distance education: A survey of the states (ERIC Document Reproduction Service No. ED 428 640): State Higher Education Executive Officers Association.

Fowler Jr., F. J. (1993). Survey research methods. (2nd ed.). Newbury Park: Sage Publications.

Fulcher, G., & Lock, D. (1999). Distance education: The future of library and information services requirements. Distance Education, 20 (2), 313-329.

Galusha, J. M. (1998). Barriers to learning in distance education (ERIC Document Reproduction Service No. ED 416 377).

Gover, H., & Caspers, J. (1999). Key concepts in the Association of College and Research Libraries (ACRL) guidelines for distance learning library services. FID Review, 1 (2/3), 50-52.

Heller-Ross, H. (1999). Library support for distance learning programs: A distributed model. The Journal of Library Services for Distance Education, 2 (1).

Available: www.westga.edu/~library/jlsde/jlsde2.1.html [2001, January].

Hite, S. J. (2001). Reviewing quantitative research to inform educational policy processes. Paris: UNESCO: International Institute for Educational Planning.

Institute for Higher Education Policy. (1999). Distance learning in higher education: An ongoing study on distance learning in higher education: Council for Higher Education Accreditation.

Kascus, M. A. (1994). What library schools teach about library support to distance students: A survey. American Journal of Distance Education, 8 (1), 20-35.

Kascus, M. A., & Aguilar, W. (1988). Providing library support to off-campus programs. College of research libraries, 49 (1), 29-37.

Kentucky Virtual Library. (2001). Welcome to the Kentucky Virtual Library. Available: <http://www.kyvl.org/html/kyvustudents/students.shtml> [2001, December 20].

Khan, A. W., & McWilliams, P. (1998). Application of interactive technologies in open and distance learning: An overview. Indian Journal of Open Learning, 7 (1), 7-21.

Kirk, E. E., & Bartelstein, A. M. (1999). Libraries close in on distance education. Library Journal, 124 (6), 40-42.

Kishore, S. (1998). Student support and quality indicators in distance learning. Indian Journal of Open Learning, 7 (2), 205-212.

Knowles, M. S. (1970). The modern practice of adult education: Andragogy versus pedagogy. New York: Association Press.

Kroder, S. L., Suess, J., & Sachs, D. (1998). Lessons in launching web-based graduate courses. T.H.E. Journal, 25 (10), 66-69.

Lebowitz, G. (1997). Library services to distant students: An equity issue. Journal of Academic Librarianship, 23 (4), 303-308.

Maughan, P. D. (1999). Library resources and services: A cross-disciplinary survey of faculty and graduate student use and satisfaction. The Journal of Academic Librarianship, 25 (5), 354-366.

Middle State Commission on Higher Education. (2002, May 2002). Best practices for electronically offered degree and certificate programs (2nd). Available: www.wascweb.org/senior/bestelectronic.pdf [2002, October 10].

Mielke, D. (1999). Effective teaching in distance education. Washington, DC: American Association of Colleges for Teacher Education. (ERIC Document Reproduction Service No. 436 528).

NCHEMS. (2001). Beyond the administrative core: Creating web-based student services for online learners. , 2-5.

Niemi, J. A., Ehrhard, B. J., & Neely, L. (1998). Off-campus library support for distance adult learners. Library Trends, 47 (1), 65-74.

Paneitz, B. (1997). Community college students' perceptions of student services provided when enrolled in telecourses. Unpublished doctoral dissertation, Colorado State University, Fort Collins.

Parke, M., & Tracy-Mumford, F. (2000). How states are implementing distance education for adult learners. Washington, DC: National Institute for Literacy. (Eric Document Reproduction Service No. ED 438 398).

Peters, T. A. (2000). Current opportunities for the effective meta-assessment of online reference services. Library Trends, 49 (2), 334-349.

Schrum, L. (1999). Trends in distance learning: Lessons to inform practice. Educational Media and Technology Yearbook, 24, 11-16.

Schweber, C., Kelley, K. B., & Orr, G. J. (1998, August 5-9, 1998). Training, and retaining, faculty for online courses: Challenges and strategies. Paper presented at the Annual Conference on Distance Teaching & Learning, Madison, WI.

Slade, A. L. (1998). Library services for distance learning: What librarians need to know! PNLA, 63 (1), 19-21.

Southern Regional Education Board. (2001). Composite report of all the states. Available: <http://www.sreb.org/main/Publications/VirtualLibraries/composite.html> [2001, March 31].

Swaine, C. W. (2000). Challenges in delivering library services for distance learning (ERIC Document Reproduction Service No. ED 438 837).

Tennessee Board of Regents. (2001a). Tennessee Board of Regents Online Degree Programs: Home. Available: http://www.tn.regentsdegrees.org/about_faqs_home.htm [2001, April 24].

Tennessee Board of Regents. (2001b). Tennessee Board of Regents Online Degree Programs: Student services. Available: http://www.tn.regentsdegrees.org/student_services.htm [2001, April 24].

Tennessee Board of Regents. (2001c). Tennessee Virtual Library. Available: <http://vl.tn.regentsdegrees.org/> [2001, April 24].

Tennessee Board of Regents Committee for Accreditation Policies and Guidelines. (2000a). Draft guidelines for the evaluation of electronically offered degree and certificate programs.

Tennessee Board of Regents Committee for Accreditation Policies and Guidelines. (2000b). Draft statement of the Regional Accrediting Commissions on the evaluation of electronically offered degree and certificate programs.

Tennessee Board of Regents Committee for Accreditation Policies and Guidelines. (2000c). Proposal for a TBR virtual library.

University of Florida George A. Smathers Libraries. (2001, October 17). Distance Learning Library Services and Policies. Available: <http://web.uflib.ufl.edu/dltop.html> [2001, October 19].

Wagner, E. D. (1993). Variables affecting distance education program success. Educational Technology, 33 (4), 28-32.

Western Associate of Schools and Colleges. (2001). Good practices for electronically offered degree and certificate programs. Available: www.itcnetwork.org/reports.htm [2002, October 10].

Wolpert, A. (1998). Services to remote users: Marketing the library's role. Library Trends, 47 (1), 21-41.

Wood, H. (1998, February 7). Designing study materials for distance students. Available: <http://www.csu.edu.au/division/oil/oil-rd/occpap17/design.htm> [2000, February 29].

APPENDICES

Distance Library Services Survey

Please *click* your response or fill in the appropriate blank. After completing all of the questions *click* the submit button to send your responses to the researcher.

TBR Virtual Library

The following questions will concern your awareness of the TBR Virtual Library.

1. Do you have a link to the TBR Virtual Library on your course site?

Yes ☐ — No ☐

2. Has your instructor suggested that you visit the TBR Virtual Library in an announcement, email, discussion, chat or syllabus?

Yes ☐ — No ☐

3. Has any assignment required you to access (connect to) the TBR Virtual Library?

Yes ☐ — No ☐

4. Have you accessed (connected to) the TBR Virtual Library?

Yes ☐ — No ☐

If No, Skip to Question 6.

The next set of questions will concern your level of satisfaction with resources and services available through the TBR Virtual Library.

5. For each item below, please *click* one category to indicate your level of satisfaction. If you did not use the resource or service, *click* the "Didn't Use" category and move to the next item.

Library Resources (these are links on the TBR Virtual Library Website)	Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied	Didn't Use
a. Quick Reference	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Library Catalogs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Electronic Databases	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Document Delivery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Search the Internet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Need Help?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. "How To" Guides	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. About Us information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Home School Library

The following questions will concern your experience with your Home School library. Your Home School library is the library for the college or university that admitted you and will award your degree.

6. Have you accessed (connected to) your Home School Library web site this semester?

Yes ☐ — No ☐

If No, Skip to Question 9.

7. How did you access your Home School library site?

Select From List

▼

Resources and Services

The next set of questions will concern your level of satisfaction with library resources and services offered through distance library services and traditional library services. Distance library services are those library services available to distance students via their Home School Library website or the TBR Virtual Library. Traditional (On-Campus) library services are those library services available to on-campus students when physically visiting the library.

8. For each item below, please *click* one category to indicate your level of satisfaction in regard to both distance and traditional (on-campus) library resources/services. If you did not use the resource/service, click the "Didn't Use" category and move to the next item.

Legend

Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied	Didn't Use
V S	S	N	D	V D	D U

Resource/Service	Distance Library Services (TBR Virtual Library and Home School Library)						Traditional Library Services (On-Campus)					
	V S	S	N	D	V D	D U	V S	S	N	D	V D	D U
a. Access to library catalog	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Access to articles (i.e. magazines, scholarly journals, newspapers)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Access to electronic databases (i.e. ABI/INFORM, ERIC, InfoTrac, PsycINFO)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Access to electronic journals (full-text journals available online)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Access to electronic books (netLibrary)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Distance Library Services (TBR Virtual Library and Home School Library)						Traditional Library Services (On-Campus)					
	V S	S	N	D	V D	D U	V S	S	N	D	V D	D U
f. Availability of reference librarian	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Timeliness of answers to	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

reference questions provided by reference librarian	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Value of information provided by reference librarian	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Ability to borrow books and obtain photocopies of articles or materials from other TBR libraries	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Interlibrary loan (borrowing books, or obtaining photocopies, or materials not owned by TBR libraries)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. Overall, do you feel that the library resources and services available through the *TBR Virtual Library* are adequate to support your needs?

10. Overall, do you feel that the library resources and services available through your *Home School Library* are adequate to support your needs?

11. Overall, do you feel that the library resources and services available through the *TBR Virtual Library* are equivalent to the services available in a traditional on-campus library?

Select From List ▼

12. In your opinion, in what ways could the TBR Virtual Library be improved?

Please enter your response in the box below.

13. In your opinion, what additional library resources/services should be available to online students enrolled in courses in the Regents Online Degree Programs?

Please enter your response in the box below.

Computer Experience

The next set of questions will ask you about your computer experience.

14. Have you taken an online course before this semester?

Yes ☐ — No ☐

If yes, where?

15. Have you previously taken an on-campus course?

Yes ☐ — No ☐

If yes, where?

16. Do you own a computer?

Select From List ▼

17. Where will you access the library website this semester? Check all that apply.

- | | |
|--|---|
| <input type="checkbox"/> Home | <input type="checkbox"/> Community facility (Public library, city center) |
| <input type="checkbox"/> University Library | <input type="checkbox"/> Office center (Kinko's, Office Max) |
| <input type="checkbox"/> University Computer Lab | <input type="checkbox"/> Other |
| <input type="checkbox"/> Work | |

18. How confident do you feel about using a computer?

Select From List ▼

19. How many hours do you use a computer during an average 7 day week?

Select From List ▼

20. How much experience do you have with the following computer related activities:

Click the *appropriate* answer for each activity.

	Extremely Experienced	Very Experienced	Moderate Experience	Some Experience	No Experience
a. Sending an email	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Posting to a discussion board	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Participating in a chatroom	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Using the Internet to purchase goods/services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Using the Internet for research or homework	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Demographical Information

In the next section we would like to ask you a few questions about yourself for research purposes only.

21. What is your sex?

22. What is your age?

23. What is your race?

24. What is your occupational status?

25. What is the highest educational level you have obtained?

 ▼

26. What is your current academic status?

 ▼

27. How many semester hours are you currently taking this semester?

 ▼

28. Are you pursuing a Regents Degree?

 ▼

If No, Skip to Question 30.

29. What degree are you pursuing?

30. Which courses in the Regents Online Degree Program are you enrolled in this semester?
Check (click) all that apply.

<input type="checkbox"/>	AHSC	4547	CORPORATE ETIQUETTE	<input type="checkbox"/>	ENGL	1010	ENGLISH COMPOSITION I
<input type="checkbox"/>	BIOL	1010	INTRO TO BIOLOGY I	<input type="checkbox"/>	ENGL	1020	ENGLISH COMPOSITION II
<input type="checkbox"/>	BIOL	1110	GENERAL BIOLOGY	<input type="checkbox"/>	ENGL	2110	AMERICAN LITERATURE: COLONIAL PERIOD THROUGH THE CIVIL WAR
<input type="checkbox"/>	BIT	1150	INTRODUCTION TO MICROCOMPUTERS	<input type="checkbox"/>	HIST	2010	AMERICAN HISTORY (US) I
<input type="checkbox"/>	BMGT	3630	HUMAN RESOURCES MANAGEMENT	<input type="checkbox"/>	HIST	2020	AMERICAN HISTORY (US) II
<input type="checkbox"/>	CIS	0113	PROGRAMMING/VISUAL BASIC	<input type="checkbox"/>	INTC	1050	COMPUTER GRAPHICS
<input type="checkbox"/>	CIS	0263	WEB PAGE DEVELOPMENT/DESIGN	<input type="checkbox"/>	JOUR	3400	INTRODUCTION TO PUBLIC RELATIONS
<input type="checkbox"/>	COL	0101	THE COLLEGE EXPERIENCE: ONLINE	<input type="checkbox"/>	MATH	1110	COLLEGE ALGEBRA
<input type="checkbox"/>	COMM	3010	INTEGRATED CORPORATE COMMUNICATION	<input type="checkbox"/>	MGMT	3610	PRINCIPLES OF MANAGEMENT & ORGANIZATIONAL BEHAVIOR
<input type="checkbox"/>	CSC	3700	SOFTWARE ANALYSIS & DESIGN	<input type="checkbox"/>	MUS	1030	MUSIC APPRECIATION
<input type="checkbox"/>	CSCI	3222	DATABASE MANAGEMENT SYSTEMS	<input type="checkbox"/>	ORCO	3240	INTRO TO ORGANIZATIONAL COMMUNICATION
<input type="checkbox"/>	DSPM	0800	ELEMENTARY ALGEBRA	<input type="checkbox"/>	PADM	3601	INTRODUCTION TO PUBLIC ADMINISTRATION
<input type="checkbox"/>	DSPM	0850	INTERMEDIATE ALGEBRA	<input type="checkbox"/>	PTMA	3020	MANAGING INFORMATION TECHNOLOGY
<input type="checkbox"/>	DSPR	0800	DEVELOPMENTAL READING	<input type="checkbox"/>	SOAA	3350	SOCIAL STATISTICS
<input type="checkbox"/>	DSPS	0800	LEARNING STRATEGIES	<input type="checkbox"/>	SOC	0451	INTRODUCTION TO SOCIAL RESEARCH
<input type="checkbox"/>	DSPW	0800	DEVELOPMENTAL WRITING	<input type="checkbox"/>	SP	0110	FUNDAMENTALS OF PUBLIC SPEAKING
				<input type="checkbox"/>	SPAN	1010	ELEMENTARY SPANISH I

31. Which college/university (Home School) will award your degree?

Select From List



[Exit without Submitting Form](#)

© Robin Blackman 2001

Distance Library Services Survey

Processing Data...

Saving Data to the File...

Thank you for your submission.

We would like to invite you to participate in a DLS Survey Drawing. One student, who completed this survey AND entered the drawing, will be selected at random to receive a \$50 online gift certificate from Amazon.com. To be included in the drawing you must provide your email address in the box below. Remember to enter the drawing only once. Duplicate entries will be removed and not included in the drawing.

NOTE: Drawing submissions will be filed separately from the survey in order to protect your anonymity and your email address will not be used for any purpose other than to notify you if you are the winner.

[No Thanks - I do not wish to enter.](#)

Distance Library Services Survey

Your Entry in the DLS Drawing:

If this entry is incorrect please use the back button on you browser to correct your entry. If this is correct, please click on CONFIRM to enter the drawing.

CONFIRM

Distance Library Services Survey

Saving Data to the File...

You have been entered in the DLS Survey Drawing as:

**Thank you for your participation in the Distance Library Services Survey
and Good Luck in the Drawing!**

Please close this browser window to complete the logout process.

**Thank You,
[Robin Blackman](#)**

Thank you for your participation in the Distance Library Services Survey.

Please close this browser window to complete the logout process.

Appendix B –IRB Form

FORM A

IRB # _____

Certification for Exemption from IRB Review for Research Involving Human Subjects

A. PRINCIPAL INVESTIGATOR(s) and/or CO-PI(s): (For student projects, list both the student and the advisor.)

PI: Robin F. Blackman
Chair: Dr. Edward L. Counts

B. DEPARTMENT/UNIT:

Instructional Technology, Curriculum, and Evaluation

C. COMPLETE MAILING ADDRESS AND PHONE NUMBER OF PI(s) and CO-PI(s):

Robin F. Blackman, 1842 Black Fox Crossing, Murfreesboro, TN 37127, (615) 217-0979
Edward L. Counts, University of Tennessee, College of Education, 442 Claxton Complex, Knoxville, TN 37996-3400, (865) 974-4246

D. TITLE OF PROJECT:

Student Perceptions And Attitudes Toward Student Services Offered Through The Tennessee Board Of Regents Online Degree Programs

E. EXTERNAL FUNDING AGENCY AND ID NUMBER (if applicable):

Tennessee Board of Regents funding applied for, not yet awarded

F. GRANT SUBMISSION DEADLINE (if applicable):

G. STARTING DATE: (NO RESEARCH MAY BE INITIATED UNTIL CERTIFICATION IS GRANTED.)

October 21, 2001

H. ESTIMATED COMPLETION DATE (Include all aspects of research and final write-up.):

April 15, 2002

I. RESEARCH PROJECT:

1. Objective(s) of Project (Use additional page, if needed.):

To determine the perceptions and attitudes with regard to student support services of students enrolled in the Tennessee Board of Regents Online Degree Programs during the fall semester of 2001.

2. Subjects (Use additional page, if needed.):

The participants in the study will consist of students enrolled in the Regents Online Degree Programs in the fall semester of 2001. The number of students enrolled in the Regents Online Degree Program at the time the study is conducted will determine the population size, but I anticipate approximately 600 participants.

3. Methods or Procedures (Use additional page, if needed.):

Developing the Instrument

The researcher developed the instrument after an unsuccessful search for a field-tested and frequently used instrument that addresses all priorities set by the research questions. The items included in the instrument were determined from a review of instruments that focused on student support services, course delivery, faculty performance, and distance education programs. With a commitment to testing for content validity, clarity and reliability the researcher requested professional reviewers to serve as jurors and student reviewers with online course experience. All professional reviewers were recognizable experts in survey design and assessment and evaluation. All student reviewers have taken at least one online course within the last two years. After feedback was obtained and reviewed from all expert and student reviewers the researcher made the necessary changes to the instrument. A pilot test of the survey instrument will take place during the week of September 10, 2001. The survey instrument will be piloted with students enrolled in online courses offered from institutions within the TBR system with similar characteristics. The pilot test of the survey will be administered to address face validity. Revisions and additions to the instrument will be made based upon feedback from the pilot study group. The revised instrument will be submitted to the dissertation committee for final approval.

Approval from the Tennessee Board of Regents has been granted. However, the pilot study results will not be used in the exploratory study administered to students enrolled in the Regents Online Degree Program.

Administering the Instrument

Communication with the instructor will be made prior to the beginning of the semester. All instructors will be informed of the assessment via email. A file that contains a link to the password protected online survey site will be provided to the course

developer/instructor at least two weeks prior to the scheduled administering date. This will provide the course developer/instructor ample time to add the file to the course site. Adding the file to the course site only requires approximately 2 minutes. However, if there are any problems this will provide the principal researcher time to address the problem and provide assistance in adding the link to the site. It is very important that the link to the online survey is available to the students during the stated administering dates. The participants will be asked to complete the online survey during the week of October 21-28, 2001. Participants are asked to submit only one survey.

The online survey site has been designed and developed to provide anonymity and confidentiality to the participant. The participant will link to a password protected survey site from within their Regents Online Degree Program Course Site (i.e. DSPM0850—Elementary Algebra). After clicking on the RODP Online Survey link, a new browser window will open that ask for a username and a password. The username and password will be provided in the file that contains the link to the online survey site. The survey site will not be accessible until October 21, 2001. Prior to that date there will be a web page stating that the online survey is not available until October 21, 2001. On October 21, 2001 a correct username and password will open a web page containing a consent form (see attachment). The consent form will provide information regarding security/confidentiality measures taken, possibility of Internet tampering, coding procedures, reporting and publishing of data, benefits to subjects or others, description of payment/gift to participants, and a statement about the participants rights. The participant is then asked to indicate his/her consent to participate in the study by clicking either the "Take the Survey" link or the "No, I do not wish to take this survey" link. If the participant clicks the "Take the survey" link then the online survey will open and the participant may begin taking the survey. If the participant clicks the "No, I do not want to take this survey" link then a page will appear with a thank you message and the participant will be instructed to close the browser window.

After completing the survey, the participant will have the opportunity to submit responses or exit the online survey without submitting responses. If the participant submits his/her responses then he/she will be given an opportunity to enter the lottery for an online gift certificate or exit the online survey site. A participant may only enter the lottery once. An email address will be requested to enter the lottery. This information will not be stored with the data (see consent form). The participant must use the same email address that they use in the RODP course to ensure that the participant is actually enrolled in the RODP. Anyone with multiple lottery submissions will be eliminated from the lottery. After clicking "Enter Lottery" the participants email address will be added to a file and a page will appear with a thank you message and the participant will be instructed to close the browser window.

Descriptive statistical analysis will be used for all Likert, continuous, and categorical data. Means and standard deviations will be reported for the Likert and continuous data and frequency and percentage will be reported for categorical data. MANOVA will be used to test if perception differs by level of computer confidence and by age. Age and

computer confidence will be dichotomized into traditional—nontraditional, and confident—no confidence. Approximate age of students is 25 or older.

4. CATEGORY(s) FOR EXEMPT RESEARCH PER 45 CFR 46 (see reverse side for categories): 1

J. CERTIFICATION: The research described herein is in compliance with 45 CFR 46.101(b) and presents subjects with no more than minimal risk as defined by applicable regulations.

Principal Investigator	<u>Robin F. Blackman</u>	<u>Robin F. Blackman</u>	<u>8/24/01</u>
	Name	Signature	Date

Student Advisor	<u>Dr. Edward L. Counts</u>	<u>Edward L. Counts</u>	<u>8/30/01</u>
	Name	Signature	Date

Dept. Review Comm. Chair	<u>Dr. John R. Ray</u>	<u>J. R. Ray</u>	<u>8/30/01</u>
	Name	Signature	Date

APPROVED:

Dept. Head	<u>[Signature]</u>	<u>Michael Vaughn</u>	<u>8/30/01</u>
	Name	Signature	Date

Rev. 01/97

Appendix C – Research Project Description

Title section

RODP Students Win a \$50 Online Gift Certificate from Amazon.com

[Distance Library Services Survey](#)

Brief Summary

There is a \$50 online gift certificate available to one student through a random drawing for participating in the Distance Library Services Survey

Detail Section

A researcher is seeking students enrolled in courses offered through the Regents Online Degree Programs (RODP) to participate in a study concerning distance library services. The online survey will take approximately 10 minutes to complete and can be completed anytime between Monday, November 19th and Sunday, December 2, 2001. All participants please take the survey only **one** time. Students enrolled in more than one RODP course need only to take the survey **one** time. After completing the survey you will have an opportunity to enter a lottery to win a \$50 online gift certificate.

The survey site is password protected; therefore you will need the following information to access the site:

Username: rodpstudent

Password: dlssurvey

Click here to take the [Distance Library Services Survey](#)

<http://www.mtsu.edu/~bar2a/Robin/>

Distance Library Services Survey

Consent Form

Thank you for participating in this study concerning distance library services. Please read the following information before you proceed.

The purpose of this study is to determine the perceptions and attitudes of students with regard to distance library services available through the Tennessee Board of Regents Online Degree Programs. The survey has been designed and developed for online completion and submission. Your survey answers are intended to be completely anonymous and confidential; however, there is always a possibility that someone may intentionally or accidentally access your answers through Internet tampering.

Security measures have been taken to minimize any risks that may exist. You actually left your course site to enter this password protected online survey site. The results of this participation will be coded in such a way that your identity will not be physically attached to the final data that is produced. The results of this research will be reported in the dissertation of the principal investigator.

After submitting your completed survey, you will be given an opportunity to enter a drawing to win a \$50 online gift certificate from Amazon.com. Entering the drawing is strictly voluntary. To enter the drawing you will be asked to give your email address after completing and submitting the survey. Your email address will not be stored with your survey responses. It is unethical to store identifying information after assuring participants that the information will not be stored. Doing so would be a violation of your rights as a participant in a human subjects research project. Therefore, I will not store your email address with your survey. If you are the winner of the online gift certificate you will be asked to provide contact information via email.

There are no foreseeable risks to the participants of this online survey. Participation in this online survey is voluntary. The refusal to participate involves no penalty. You may stop participating at any time without any penalty.

**Robin F. Blackman
Principal Investigator
rblackma@utk.edu**

Click on one of the links below to continue

**I have read this consent form and by clicking on the link below
I am giving my consent to participate in this survey.**

[Take the survey](#)

Or

[No, I do not wish to take this survey](#)

Appendix E – Responses from Open-Ended Survey Item 12

Responses to the following question: In your opinion, in what ways could the TBR Virtual Library be improved?	
1	Make the link work automatically instead of channeling us through the TBR website.
2	didn't use enough to have suggestions / usually went to campus library. Just researched what was available on-line
3	Information is too difficult to find. All I was able to find were listings of books.
4	The TBR Virtual Library led me to other school libraries. I needed a password to access these libraries and was therefore unable to look up anything except in the electronic database.
5	Easier access without needing a password
6	Make it easier to understand how to use it.
7	Undecided. Not a bad experience. Just different.
8	See MTSU's Off Campus Library Gateway -- this is what distance learners expect from a library. Access to material not access to a list of material.
9	It has been a great source
10	No improvement
11	Better representation of current available journals--most of my search results were extremely dated
12	More COMPLETE books online
13	I think it is strong now.
14	There are links to areas that would be very helpful however they are password protected and we did not have access.
15	Works fine for me as information needed
16	by adding more available articles web sites with information etc.
17	I had some trouble at times accessing the library.
18	HAVE NEVER ACESSESD THE LIBRARY BUT HAVE LEARNED FROM OTHERS THAT THE LIBRARY IS EXCELLENT.
19	So far I have not had to do any research using the TBR Virtual Library.
20	Class professor should provide the password to students to access the library. I had to find it on my own. When I asked my professor for the password so that I could work on a paper he didn't know it. I would like to see more articles online without having to request them.
21	I do not feel that the TBR Virtual Library needs any type of improvement because they it sufficient and expedient in my need for certain type of information that was pertaining to my online work.
22	Finding exactly what you are looking for could be a little easier.
23	I found it very easy to use.
24	I have no opinion on this matter.
25	It wa snot user friendly and the link was messed up. I had trouble accessing it and none of the books I looked fior were available.
26	Too busy searching to ever get article easier to go to library and get a book
27	I have no recommendations.
28	MORE INFORMATION AND LESS "DOWN" TIME
29	Add additional search criteria options.
30	guidance and improvement of exactly where to find certain types of information
31	I think that it is very important to have but I do not think that it needs any improvement.

32	I only had trouble with it once and i am not sure that it was the fault of the Library but my computer. Overall I found it to be helpful.
33	I could not get into part of the system. I became confused and gave up. I probably should have spent more time learning how to use the system before giving up.
34	Better help files. The information was not easily accessible at any level. I am excessively web savvy and could not seem to use the library very well at all. More explanation. That's the big thing.
35	Make it clearer somehow of which links get you what type of information. I tend to just go to my favorite internet search engines and bypass the TBR.
36	I can think of no changes to suggest.
37	I am not familiar enough with it yet.
38	Providing a high speed connection to students. As the traffic increases it becomes more difficult for students to access sites.
39	Perhaps a central number could be used for inquiries. If this already exists then I would say better advertisement of the library's services.
40	being more aware of its existence
41	I think the access is great. It'd be nice if it was available to all students in Tenn. not just the students in the RODP program. (I do understand why it's offered that way though)
42	Difficulty in accesses journals.
43	I don't see that improvement is needed at this time.
44	not sure
45	I haven't had enough experience with the TBR Virtual Library to suggest any improvements.
46	Everything seemed extremely slow and "too many clicks" - information not easily accessible. Each web page lead to another web page and so on. I never found what I was looking for.
47	As I haven't used it I don't feel I'm familiar enough to answer this question.
48	I would like to see even more information offered with the ability to print it directly off of the computer so that I don't have to actually go to the Library.
49	When a student clicks on the tbr site it should also be connected to the library sites so that students will not have to have additional passwords to log in the library site.
50	n/a
51	none that i can think of
52	Instructions for use that are simpler to read and understand. For example use a flow chart type diagram to discover what the student is searching for.
53	Make sure that it is easy to access. I have attempted to access it all semester and couldn't until lately.
54	Broader subject areas. I had a hard time doing a report for Biology at the TBR virtual library.
55	Direct download of full text articles from periodicals.
56	Training in the use of online resources would be helpful.
57	I've been to the online library only once but it seems to be well planned and organized. My own school library doesn't have current text books for the classes offered the reference books are YEARS old and out dated the periodicals are sparse and limited...
58	The only problem I ran into was obtaining the password to get into the Library. It was not available when i needed to get it and took a couple of days.
59	none
60	none
61	Giving more information on it in the syllabus.

62	One way I could have improved the effectiveness does not involve any changes made by your facility my connection speed isn't adequate to down load the information supplied fast enough. However I think a more specific searching engine on your site would be helpful in locating topics point blank specific to what researchers are searching for.
63	Maybe have a navigational demo(if one is not already there)
64	I found everything I needed right away. I like the layout and would not change it.
65	no comment
66	Did not have a need for the virtual library during this course.

Appendix F – Responses from Open-Ended Survey Item 13

Responses to the following question: In your opinion, what additional library resources/services should be available to online students enrolled in courses in the Regents Online Degree Program?	
1	I think it would be hard to improve upon all the resources available on the internet as it is.
2	didn't use enough to have suggestions / usually went to campus library. Just researched what was available on-line
3	Video tapes to help with lessons
4	I should be able to locate a book in the virtual library and request that it be sent to my local school library for check out or use in the library. If this is possible already it was not clearly communicated.
5	Would like to see more biological/medical journal articles available
6	Code examples for programming classes.
7	I personally like Questia netLibrary etc.
8	None
9	Better response and better course materials
10	software that is required for courses could be available for check out aiding the students in not having to purchase expensive software for one course.
11	Crash session in use of system.
12	Total access to all the links with passwords necessary to utilize the links.
13	Web Sites
14	none I believe they are fine
15	NONE
16	N/A
17	The class I am enrolled in is not listed below so I'm providing the information here. It is Public Administration.
18	The additional library resources or services that could be available is to have more information about certain subjects.
19	I have no opinion on this matter.
20	Not sure.
21	more direct way of accessing materials
22	I have no recommendations.
23	Links to professors/classes through the on-line program.
24	I think that all of the resources that are available at the current time are very good to have. I also think that there is no need for improvement at the present time.
25	I think there should be a mandatory tutorial that you take which trains you how to use the system. I gave up out of frustration and went to my local public library rather than using the electronic. For people who are just getting used to the online environment this extra help would be great.
26	I am unsure online courses and college in general is still very new to me.
27	I have not come across a library need that I couldn't meet with this service as it is.
28	same as question 12
29	perhaps a tour of the library's services via an online powerpoint presentation.

30	being able to research journals and magazines from home
31	You've got it covered -- the journals eBooks magazines etc.
32	unsure
33	All sources are available 24-hours a day which is great.
34	not sure
35	Copies of required textbooks should be available online for students.
36	Not sure
37	With the library and the web I think there are plenty of resources available.
38	Same as above.
39	n/a
40	nothing that i can think of
41	No answer.
42	See above.
43	n/a
44	none
45	none
46	full text versions of the required text for the class in which the student is enrolled. It took forever for the company suggested by you to get the books to us. Several students were even sold the wrong version of the required text.
47	access to major state libraries
48	I would like to see microfilm of newspapers from the schools town/city on the website with the availability to view over the internet.
49	no comment

VITA

Robin Felecia Blackman was born in Murfreesboro, Tennessee. Robin lived with her parents and older sister in a neighborhood that was within walking distance to her elementary school and her middle school. Robin graduated high school in May of 1984 and then enrolled in Middle Tennessee State University that fall. Robin received a Bachelors of Business Administration degree with a major in Computer Information Systems in 1989 and she received a Master of Science degree with an emphasis in Accounting/Information Systems in 1991.

Robin spent the next few years working as a programmer analyst. It was during this time that she began to consider a career in higher education. A former college professor suggested that she should consider a teaching career. He suggested that she apply for an adjunct position at Middle Tennessee State University. Robin applied for the position and began teaching adjunct in the fall of 1992. In 1993 she became a full-time instructor in the Department of Computer Information Systems at Middle Tennessee State University, where she taught computer application courses and a foundation course. It was during this time that Robin realized that teaching and training were her calling. While teaching at the university, Robin also worked under contract for local businesses training employees to use general application software. During this time, Robin also had a contractual agreement with the Provost/Vice President of Academic Affairs office at Middle Tennessee State University to provide programming and analysis services.

In 1998 Robin realized that a terminal degree was required if she wanted to continue teaching in higher education so she decided to pursue a doctorate. She is

currently a Ph.D. candidate at the University of Tennessee, Knoxville and is concentrating her studies on instructional technology and will graduate in May of 2003. Robin also is Director of Special Academic Projects in the office of the Executive Vice President and Provost of Academic Affairs at Middle Tennessee State University in Murfreesboro, Tennessee.