APPLICATION FOR FACULTY RESEARCH GRANT

**All questions must be completed to be considered for grant award.

Choose one: [ ] Creative F [X] Research	**Date of Last FRG Award** (Semester and Year awarded): _____
	Date of ATU Faculty Appointment (Semester and Year): __Fall 1997_____

1. **Project Title:** Secure Database Management and Distance Education

2. **Name of Principal Investigator/Project Director:** Johnette Moody

3. **School (abbrev):** System Science   4. **Department:** Computer & Information Science

5. **Campus Mail Address:** Corley 258   6. **PI/PD Campus Phone:** 968-0670

7. **Amount Requested:** $2,000.00 *[handwritten]*   8. **Total Cost of Project:** $2,751.82

9. **Does this project involve:**   10. **Duration of Project:** Spring Semester '05

Yes No
[ ] [X] human subjects?
[ ] [X] animals/animal care facility?
[ ] [X] radioactive materials?
[ ] [X] hazardous materials?
[ ] [X] biological agents or toxins restricted by the USA Patriot Act?
[ ] [X] copyright or patent potential?
[ ] [X] utilization of space **not** currently available to the PI/PD?
[ ] [X] the purchase of equipment/instrumentation/software currently **available** to the PI/PD?

NOTE: If the answer is "yes" to any of the above questions, the investigator must attach appropriate documentation of approval or justification for use/purchase.

SIGNATURES

Department Contribution (if applicable): $_____

Account Number: _____   *Kony Morell* 2-10-05
                                             Chairperson   Date

School Contribution (if applicable): $_____

Account Number: _____   *[signature]* 2-10-05
                                             Dean   Date

This Section to be completed by the Office of Academic Affairs
FSBA Committee Award Recommendation: Yes____ No____ *N/A* FSBA Committee Proposal Rank: _____ of _____ Total Proposals. *[N/A]* Recommendation of VPAA: Yes _✓_ No _____ Recommendation of President: Yes____ No ____ Award Date: __5/2/05__ _____ *[signature] Jack Hamm*

Abstract

Distance Education courses are on the increase but they are still problematic, resulting in a higher attrition rate than traditional courses. Technological issues such as data storage, data delivery, data security, and the technical level of enrolled students can directly impact the attrition rate. While a database is a core of distance learning courses, little research has been conducted on the relationship between the attrition rate and technological issues.

Many students drop distance education courses due to technological problems. Databases and access to them are a central component of distance education courses (assignment posting, course information, discussions, announcements, grades). This grant would fund enrollment in the course "Advanced Database Management & Security" offered through Argosy University of Sarasota. At the conclusion of this course, Tech students, previously enrolled in distance education courses, would be surveyed regarding their success or failure. This information would disclose the correlation between databases, technological issues and attrition rates in distance education courses.

Grant Purpose

This research will investigate the correlation between technological issues (data security, data delivery method, data storage methods) and the technical level of students to the successful outcome of students enrolled in a distance education course.

Objectives

1.   Measure correlation between attrition rates and technological issues.

2.   Correlation between successful completion and technical level of students.

Future Implications

1.   Reduction in attrition in distance education courses.

2.   Generalize findings.

Significance/Need

A review of the literature indicates that there has been little research in the area of technological issues and attrition rates in distance education courses. With the dawn of new educational and training technologies made possible by the Internet, distance learning is a practical option for today's time-starved students. As a result, enrollment in distance learning courses is on the increase. Although enrollment is relatively high, it is important to note that the attrition rate is higher in online courses (Morgan & Tam 1999).

A determination to offer distance learning courses involves many decisions. Information is delivered from a database via a computer network. Networking elements are essential to achieve effective network in school based distance learning (Salvati, 2001). Effective networks include wiring, modems or high-speed connections, and computer hardware and software.

Illegal and unethical access to information housed on a server concerns administrators and users alike. Students participating in a distance education course send and receive sensitive information via email. Increasingly, the availability and reliability of networks and infrastructure has been compromised by malware: viruses, worms, and Trojans designed to impact network and employee productivity (Logan & Logan, 2003). Furthermore, Logan & Logan (2003) state, "Disaster by malware is most often found to have email as the locus of infection with 86% of all malware traced to email attachments." Much of the work in a Distance Education course requires email technology.

The goal of this research will be to demonstrate that data security, data delivery method, data storage method and the technical level of the students result in student success in distance education courses. Thus, by properly addressing these issues, the attrition rate can be lowered.

References

Logan, P. Y. & Logan, S. W. (2003). Bitten by a bug: a case study in malware infection. *Journal of Information Systems Education*, 14(3), 301-305. Retrieved 7/16/04, from ProQuest Database.

Morgan, C. K. & Tam, M. (1999). Unraveling the complexities of distance education and student attrition. *Distance Education*, 20(1), 96-105. Retrieved 03/15/03, from ProQuest Database.

Salvati, J. (2001). Reflections on a 10 year distance learning project: NYClass Net. *Education*, 122 (2), 276- 282. Retrieved 7/10/04, from ProQuest Database.

ARKANSAS TECH UNIVERSITY

DATE   May 3, 2005

BUDGET TRANSFER REQUEST
I request that the following budget transfer be made:

TRANSFER TO:

DEPARTMENT	CODE NUMBER	SUB-CODE	AMOUNT
Systems Science Research Acct	2-13310	1150	$3,047.00
		2100	672.00 (22.05%)
		Pos. No. P44002	

TRANSFER FROM:

DEPARTMENT	CODE NUMBER	SUB-CODE	AMOUNT
Faculty Development	2-13910	3000	$3,719.00

REASON FOR TRANSFER: To fund research stipend for Moody for May, 2005.

_____
Dean, Administrative Officer, or
Director of Budget

ADMINISTRATIVE APPROVAL:

Jack R Hamm
Supervising Vice President

5/3/05
Date

FOR USE BY BUDGET OFFICE ONLY

DATE TRANSACTION ENTERED: FRS _____   HRS _____

TRANSACTION CODE: FRS _____
   ORIGINAL BUDGET - 0
   REVISED BUDGET   - 1
   BUDGET TRANSFER - 2

REVENUE DEFAULTS TO CREDIT   (C)
EXPENSE DEFAULTS TO DEBIT   (D)

BUDGET CHANGE NUMBER _____

ATU-003
12/94

PROPOSED BUDGET
FACULTY RESEARCH GRANT
(include budget categories as appropriate)

1. Graduate assistant stipend $_____
    Fringe benefits @ .4% (4/10 percent) of graduate assistant stipend   _____

2. Non-work study stipend   _____
    Fringe benefits @ .4% (4/10 percent) of non-work study stipend   _____

3. *Supplies (please list items to be purchased and estimated price
    per item including taxes and shipping, if appropriate):

Item No. 1 (e.g., software)	Estimated Price	122.67 (book
Item No. 2 (e.g., copying costs)	Estimated Price	98.99 (book)
Item No. 3	Estimated Price	1,860.00
(additional lines as needed)		

    Total estimated supplies   2,081.66

4. Travel (please list travel expenditures by date
    and estimated costs):

Travel No. 1	(April 7, 2005)	Estimated Price	359.80
Travel No. 2	(April 7-9, 2005)	Estimated Price	178.00
Travel No. 3	(April 7-9, 2005)	Estimated Price	48.36
Travel No. 4	(April 7-9, 2005)	Estimated Price	84.00
		(additional lines as needed)	
	Total estimated travel		670.16

5. *Capital Outlay (please list items to be purchased and estimated
    price per item including taxes and shipping, if appropriate):

Item No. 1	Estimated Price	_____
Item No. 2	Estimated Price	_____
Item No. 3	Estimated Price	_____
(additional lines as needed)		

    Total estimated capital outlay   _____

    TOTAL PROPOSED BUDGET $2,751.82

*Items purchased under $2,500 (including taxes and shipping) are considered supply items. Capital Outlay items are those which cost $2,500 or more (including taxes and shipping). Please contact the Purchasing Office for questionable items.

Proposed Timeline Advanced Database Management Spring 2005					
Date	January	February	March	April	May
1			Preliminary Report		Final Report: Correlation between technological issues and attrition in Distance Education courses
2					
3					
4					
5					
6					
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8					
9					
10	Research - Advanced Database Management & Security	Research - Advanced Database Management & Security	Research - Advanced Database Management & Security	Continue Research - Advanced Database Management & Sec	
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Johnette Delp Moody
503 South Boulder
Russellville, AR 72801
(479) 968-4758
email: johnette.moody@mail.atu.edu

**Employment
History**

Arkansas Tech University, Computer and Information Science
Department, Russellville, AR 72801; August 1997 to present
- Introduction to Computer Based Systems – COMS 1003
- Microcomputer Applications - COMS 2003
- PC Hardware and Operating Systems – COMS 2723
- Foundations of Programming I – COMS 2103
- Computer Orientation – COMS 1403
- Introduction to Databases – COMS 2233
- Web development – INFT 5303
- E-mail and Internet – EDMD 6163
- Networking - INFT5703
- Emerging Trends (Research) INFT 6903

Up & Running, Russellville, AR 72801; 1994 to present
Owner/Operator
- Consulting
- New computer sales
- Upgrade computer systems
- Diagnose problems and repair computer systems
- Professional web page development

Russellville Adult Education, Russellville, AR 72801; 1997
Computer Instructor/Coordinator
- Developed Windows95 curriculum
- Direct instruction of Windows95 classes
- Direct instruction of Windows3.1 classes
- Direct instruction of satellite classes using notebook
  computers to Ladish, Bibler Brothers Lumbers, and various
  community organizations
- Computer maintenance
- Oversaw purchase and implementation of upgraded
  computer
  lab and notebook computers

Russellville School District, Russellville, AR 72801; UE5G
Maternity leave for Sarah Coker; 1996
- Lesson plans
- Direct instruction of Science, Math, and Reading

**Employment
History**

Arkansas Tech University, Russellville, AR 72801; Graduate
Assistant; 1995 – 1996
- Assist students in Curriculum Library
- Proctor tests
- Teaching assistant
- Assist students in computer lab

Russellville School District, Russellville, AR 72801; Substitute
Teacher; 1994 – 1996
Dwight Elementary School, Russellville, AR 72801; Library Aide;
1993 – 1994
- Maintenance of computer program and database
- Class check out/check in of books
- Processed new inventory

Dwight Elementary, Russellville School District, Russellville, AR
72801; Migrant Aide, 1989 – 1992
- Tutored students on a one-to-one basis
- Maintained student records
- Home visits
- Assisted nurse during yearly checkup of Migrant students
- Attended scheduled workshops
- Chairperson of COE, Monitoring and Assessment
  Committee
- Computerized student enrollment files
- Assisted in all phases of standardized testing

Publication

**Distance Education: Why are the attrition rates so
High?** *The Quarterly Review of Distance Education*, 5(3), Fall
2004.

**Educational
Experience**

Advising university students concerning future scheduling of
classes

NCATE team, Arkansas Tech University, Russellville, AR; 1995

Textbook selection/recommendation team; Arkansas Tech
University; 1994

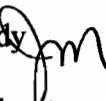|	
EDUCATIONAL EXPERIENCE	Teacher Education Council, Graduate Representative; Arkansas Tech University, Russellville, AR 72801; 1995 – 1996
	Teacher Appeal Committee; Arkansas Tech University; Russellville, AR 72801; 1996
Seminars	Prentice Hall Information Technology Seminar 2003, Dallas, TX
	Prentice Hall Information Technology, Seminar 2002, Dallas, TX
	Course Technology Seminary 2001, Hot Springs, AR
	Arkansas Technology Institute, UCA, Conway, AR; 1997 3-day workshop involving Internet, CBT training, Technology in the classroom, HTML classes, etc.
Education	**University of Sarasota/Argosy University**, Sarasota, FL 34235 Pursuing Doctorate of Business Administration with emphasis in Information Systems; Currently ABD
	Arkansas Tech University, Russellville, AR 72801; December 1996; M.Ed. with emphasis in Instructional Technology/Media; Outstanding Graduate Student
	Arkansas Tech University, Russellville, AR 72801; December 1994; BS in Elementary Education; High Honors graduate
	Capital City Business College, Russellville, AR 72801; Executive Secretarial degree; Honor graduate
	Dardanelle High School, Dardanelle, AR 72834; Honor graduate

To: Jennifer

From: Johnette Moody

Subject: Receipts for Grant

Date: Wednesday, April 27, 2005

Please find attached the following:

1. Receipt from Argosy University of Sarasota for the tuition for the course listed on my grant application
2. Receipt from Amazon for purchase of two (2) textbooks listed on grant application

These are the only receipts I have. If you need additional information, please email me at johnette.moody@atu.edu or phone at 0670. Thanks for your help.

Thanks for your order, Johnette Moody!

Want to track your order status?
Learn how with our animated demo!

Payment Information

Payment Method: Change
MasterCard | Last 5 digits: 43142

Billing Address: Change
Johnette Moody
503 South Boulder
Russellville, AR 72801
United States

Want to use a gift certificate?

Enter code here, then click "Apply":   Apply

Note: Promotional certificates and gift cards may be redeemed only when the order is originally placed. Also, you can apply gift certificate balances only to items listed as "not yet shipped."

Need to print an invoice?

Item(s) Subtotal: $104.20
Shipping & Handling: $3.99

Total Before Tax: $108.19
Estimated Tax: $0.00

Grand Total:$108.19

Purchasing Information:

E-mail Address: johnette.moody@mail.atu.edu

Billing Address:	**Shipping Address:**
Johnette Moody	Johnette Moody
503 South Boulder	503 South Boulder
Russellville, AR 72801	Russellville, AR 72801
United States	United States

Order Grand Total: $126.66

Earn 3% rewards on your Amazon.com purchases with the Amazon Visa Card. Learn More

Order Summary:

Shipping Details: (order will arrive in 1 shipment)

Order #:   104-8634059-9484704
Shipping Method: Standard Shipping
Shipping Preference: Group my items into as few shipments as possible
Subtotal of Items: $122.67
Shipping & Handling: $3.99

Total for this Order: $126.66

4/26/2005

ARGOSY
UNIVERSITY

Sarasota Campus

5250 17th Street, Sarasota. Florida, 34235, phone 941-379-0404, fax 941-379-9464, toll free 800-331-5995

Receipt

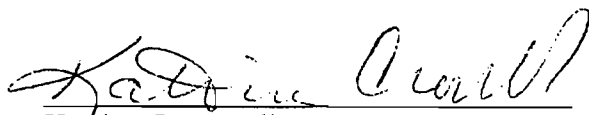Johnette Moody   April 27, 2005
503 South Boulder Ave.
Russellville, AR 72801

Spring Term (01-10-05 to 04-23-05)

Course #	Course name	Tuition Charges	Payments
B 7701	Advanced Database Management	$1830.00	$1830.00
	Total:	$1830.00	$1830.00

Katrina Cromwell
Student Finance Office

Restatement of Problem

This research will investigate the correlation between technological issues (data security, data delivery method, data storage methods) and the technical level of students to the successful outcome of students enrolled in a distance education course.

Research Objectives

1. Survey to be developed that will be sent to every student enrolled in an online course during the Spring 2006 semester.

2. Measure correlation between attrition rates and technological issues.

3. Correlation between successful completion and technical level of students.

Summary Research Questions

1. The student's network connection mode (dial-up, cable/DSL, other, don't know) will be investigated as to the impact the connection mode has on the student's ability to persist.

2. The student's self-acknowledged level of technical expertise (ability to send/receive email, send attachments, and download files) will be investigated as to the impact on the student's ability to persist.

3. The survey will also investigate the impact of email response time (within 1-6 hours, within 7-12 hours, within 13-24 hours, and longer than 24 hours) upon the student's ability to persist.

4. The survey will investigate whether the communication method (office hours, email, telephone, discussion board, or do not interact) utilized in the distance education course will impact the student's ability to persist.

Conclusions and Recommendations

The population for this survey will be all students enrolled in at least one distance education course during the spring semester of 2006. Proper protocol and documents will be completed before the survey is available to the population. While the survey will be completed as a result of the information gathered during the course offered spring 2005 at Argosy University of Sarasota, it will not be issued to students until spring 2006.

The goal of this research will be to demonstrate the impact, if any, that the student's network connection mode, email response time, communication method, and the student's level of technical level have upon the student's ability to persist in a distance education course. In addition, it is the researcher's desire to generalize this research to enhance the body of research concerning the technological issues that may impact the student's ability to persist.