



**The Learning Resource Center
Lincoln University, Pennsylvania**

Spring 2011 Report

**Patricia Fullmer
Director**

**Evelyn Davis-Poe
Assistant Director**

**S. Jean Waites-Howard
Act 101 Academic Counselor**

**Maureen Kyle
Program Assistant**

**Gary Arnold
Writing Tutor**

**Oreoluwa Badejo
Mathematics Tutor**

**Giana Lawrence
Writing Tutor**

**Greg Malize
Writing tutor**

**Joye McDonald-Hamer
Writing Tutor**

**Ema Iruobe
Writing Tutor**

**Lorrene Miller
Mathematics Tutor**

**Sheila Waugh Mitchell
Reading Tutor**

**Dennis Nsemwa
Mathematics Tutor**

**Sally Paulson
Writing Tutor**

**Patricia Snyder
Reading Tutor**

**Daniel Sheard
Writing Tutor**

**Ronald Turner
Mathematics Tutor**

**V. Venugopal
Mathematics Tutor**

**Leonie Walters
Reading Tutor**

**Learning Resource Center
Lincoln University, Pennsylvania**

Vision Statement

Lincoln University's Learning Resource Center will become known nationally for its superior assistance to students in need of academic enrichment and student development by providing competent, professional, student-centered service which resonates with high standards of excellence.

Mission Statement

The mission of the Learning Resource Center is to increase student retention by fostering a holistic approach to student development. To this end, we provide academic support for all Lincoln University students who seek resources to enhance achievement, specifically in reading, writing, and math. Using a student-centered approach, support is provided through tutoring, academic advising and counseling, student development workshops, and campus referrals. Collaborating with the university community, we provide supplemental instruction in an engaging and scholarly learning environment inspiring students to become independent while adjusting to college life. Our support for students and the university community is implemented by a committed and caring staff guided by high standards of excellence. Best practices, ongoing systematic assessment, collaboration and alignment with academic departments, current technologies, cultural competence, and an appreciation for diverse learning abilities are utilized to provide the best services to the constituents of Lincoln University's Learning Resource Center.

TABLE OF CONTENTS

INTRODUCTION	4
PROGRAM GOALS	4
A LOGIC MODEL OF THE LRC	6
CERTIFICATION	8
RESEARCH EVIDENCE FOR THE EFFECTIVENESS OF TUTORING	8
ATTENDANCE SUMMARY	9
INDIVIDUAL APPOINTMENT AND DROP-IN TUTORING	10
WRITING PORTFOLIO PROGRAM.....	12
PEER TUTORING.....	13
TUTORING LABORATORIES	15
T-TEST OF DEPENDENT SAMPLES AND ETA SQUARED.....	17
READING LABORATORY.....	18
WRITING LABORATORY	26
MATHEMATICS LABORATORY.....	41
ACT 101 ACHIEVEMENT PROGRAM.....	54
PEER TUTORING.....	58
REFERENCES	59

Introduction

The Learning Resource Center (LRC) at Lincoln University is committed to assisting the Lincoln Community in building a culture of academic excellence. In order to build the foundation for academic excellence, the LRC provides individual and small group tutoring, tutoring laboratories, peer tutoring, a computer lab, the Act 101 program, workshops, and writing portfolio assistance. Tutoring services include: Laboratories for success courses in reading, writing, and mathematics, drop-in tutoring for reading and writing, appointment tutoring for math and a peer tutoring program.

Program Goals

The goal of the Learning Resource Center (LRC) is to support students in their academic aspirations and in the adjustment to college life. The LRC values collaboration with faculty and staff in order to provide exemplary services to the Lincoln community.

Tutoring Laboratories

The goal of the tutoring laboratories is to support students in their classroom work for success courses and increase their skills to a college level.

Reading Lab. The goal of the Reading Lab is to assist students in increasing their level of reading comprehension to a college level through mini review lessons and reading selections in an online reading tutoring program that individualizes the practice for each student.

Writing Lab. The goal of the Writing Lab is to assist students in raising their level of writing to the college level through mini review lessons and grammar practice in an online writing tutoring program.

Mathematics Lab. The goal of the math lab is to assist students in increasing their mathematics skills to the college level through review lessons and practice in a math online tutoring program that uses artificial intelligence to tailor the program to each individual student.

Drop-in and Appointment Tutoring

In spring 2011, the LRC provides drop-in and appointment tutoring from 9:00 am to 5:00 pm Mondays, Wednesdays, Thursdays, and Fridays. The goal of this service is to support students in their academic work, such as help with writing papers, projects, math assistance, homework, etc.

Peer Tutoring

The goal of peer tutoring is to enable all students, including students on academic probation, to receive assistance in their academic courses from peers who have been successful in the courses. Peer tutoring is available Sundays through Thursdays, from 5:00 pm to 11:00 pm.

Act 101 Program

The Act 101 program provides services for low-income Pennsylvania resident students, who usually would not meet the admission criteria, and assists these students in becoming successful college students: Intrusive advising and counseling, meetings, and workshops. Act 101 students receive preferential scheduling of tutoring appointments, preferential scheduling of workshops, advocacy, letters of recommendation, referrals, and academic coaching. This year, the Act 101 program is hosting the AmeriCorps Community Scholars Program that offers a monetary award for students who volunteer 300 hours during the school year. Objectives include providing academic coaching, tutoring, and intensive and intrusive advising in order to increase students' academic skills, persistence and retention for eligible Pennsylvania residents.

Computer Lab

The goal of the Computer Lab is to provide access to computers, a printer and the internet in order to advance students' research and academic skills. The objective includes increasing the quality of research and paper writing in order to increase retention and graduation rates.

Assessment

The semester report is an opportunity to conduct a self-assessment and develop ways to improve services for students and the Lincoln community. The LRC uses multiple sources of data and a variety of methods of collection, including direct sources of evidence, such as a pretest and posttest, in order to develop accurate and truthful results. Quantitative and qualitative data is collected through self-report surveys from students and professors, pretest and posttest scores, and course grades.

The LRC collects and analyzes data in order to develop prescriptions for improving services and the effectiveness of those services. Each tutoring laboratory in the LRC develops student learning outcomes, collects and reviews data pertaining to the student learning outcomes, modifies the student learning outcomes accordingly, and determines action plans to improve services and meet the student learning outcomes. In addition, a SWOT (strengths, weaknesses, opportunities, threats) analysis is conducted by the staff for each program, and an action plan is developed. This semester, the tutors worked diligently in developing a logic model for their respective labs in order to discover any gaps in services and gain a comprehensive understanding of the program for planning purposes.

This information is used to complete a self-evaluation, analyze services, and generate strategies for improvements that will increase the effectiveness of services. In this manner, significant informed decisions are made concerning goals, objectives, and student learning outcomes.

A Logic Model of the LRC

A logic model is a picture of how the program or organization works, and describes the basics of the program over time. It is a roadmap describing the program's sequence of events—a type of graphic organizer of the organization. Devising a logic model facilitates reflection, planning and communication among the organization's employees and stakeholders, leading to a high quality evaluation of the program. Also, some grant applications are now requiring the inclusion of a logic model (University of Wisconsin Extension, 2003; W.K. Kellogg Foundation, 2004).

The utilization of a logic model reveals gaps in services and programs, and focuses attention on the relationship between actions and results. In addition to building a shared understanding of the program, creating a logic model involves and engages participants in the design, process, and evaluation of the program or organization. A logic model consists of inputs, outputs, and outcomes/impact. Inputs include resources, such as funding, staff, technology, etc., and outputs include activities and clients or participants. Outcomes involve short, medium, and long term impacts.

The LRC recently developed a logic model for the program, tutoring labs, and Act 101 using an outcome approach. Initially, LRC employees developed short, medium, and long term outcomes/impacts, and then proceeded to base inputs and outputs on the desired outcomes. Below is the logic model for the LRC. The logic models for the tutoring labs and Act 101 can be found in their respective sections in this report.

Learning Resource Center Logic Model

Inputs	Outputs		Outcomes -- Impact		
	<i>Activities</i>	<i>Participation</i>	<i>Short</i>	<i>Medium</i>	<i>Long</i>
<p>What we invest:</p> <p>University funds Title III funds Act 101 funds</p> <p>Staff: Tutors Peer Tutors Secretary Administrators</p> <p>Training for staff</p> <p>Online programs and access codes</p> <p>Mini-Lesson plans and exercises</p> <p>Computers</p> <p>Rooms and offices</p> <p>Collaboration with academic departments and administrators</p>	<p>What we do:</p> <p>Tutoring Laboratories</p> <p>Online tutoring programs</p> <p>Review mini-lessons</p> <p>Individual Math , Writing, and Reading tutoring</p> <p>Writing Portfolio assistance</p> <p>Revision and proofreading assistance</p> <p>Workshops</p> <p>Summer Bridge Labs and Professional and Peer Tutoring</p> <p>Peer Tutoring</p> <p>Act 101 Program</p>	<p>Who we reach:</p> <p>Students</p> <p>Students' Families</p> <p>Faculty</p> <p>Administrators</p> <p>Alumni</p>	<p>This semester's results:</p> <p>Students increase their skills to college level</p> <p>Students earn a B or above in their course</p> <p>Students increase life skills and coping skills</p> <p>Students adjust to college life</p>	<p>Next semester/next year's results:</p> <p>Students increase their GPA</p> <p>Students persist and return the next semester/next year</p> <p>Students become successful academically, socially, and emotionally at Lincoln</p> <p>Lincoln's persistence/retention rate increases</p>	<p>Results in 4/6 years and more:</p> <p>Students successfully graduate Lincoln with skills for graduate school or the fast track in a corporation</p> <p>Lincoln's graduation rate increases</p> <p>Lincoln's reputation increases</p> <p>More and better prepared students are attracted to Lincoln</p> <p>Growth of Lincoln</p>
<p>Assumptions:</p> <p>Following best practices in our services will help students increase their skills.</p> <p>Increased student skills will improve retention and graduation rates.</p> <p>Increased graduation rates will help attract students and increase Lincoln's reputation.</p>			<p>External Factors:</p> <p>Location</p> <p>Economy</p> <p>State and Federal funding</p> <p>Perception of LRC by Faculty, Administrations, and Students</p>		

Adapted from:
University of Wisconsin-Extension (2003). *Enhancing program performance with logic models*. Retrieved from lmcourse@ces.uwex.edu.

Certification

The Learning Resource Center (LRC) has successfully been certified by the International Tutoring Program Certification (ITPC) of the College Reading and Learning Association (CRLA) for Levels 1, 2, and 3. This entails 30 hours of training (ten hours per level) and close supervision. ITPC certification ensures that LRC tutors are knowledgeable about best practices and are professionally competent.

Research Evidence for the Effectiveness of Tutoring

The tutoring laboratories and online tutoring programs are an opportunity for students to spend further time on task and practice. Brophy (1988) found that additional time on task relates to increased learning if the activities are successfully implemented and effectively designed, and the instruction is proficient. In Brophy's review of twelve studies in nursing education (Cant and Cooper, 2010) increased practice resulted in increased knowledge, an increase in critical thinking skills, and increased student satisfaction/confidence.

Rheinheimer, et al (2010) found that tutoring significantly improves academic performance, including increased persistence, increased retention, and increased graduation rates. Benjamin Bloom (1984) found that the most effective method of instruction was one-on-one (or small groups of two or three) tutoring using mastery learning as compared to classroom learning. Mastery learning included formative testing, feedback, and corrective procedures. Higher order thinking was also significantly increased in tutoring as compared to conventional classroom instruction. Bloom (1984) concluded: "Again, the point is that students can learn the higher mental processes if they become more central in the teaching-learning process" (p. 14).

Bloom also found that, at the beginning of a course, if there was intense individualized review and relearning (specifically in Algebra and French), students had increased learning as compared to instruction without intensive review and relearning. Utilizing enhanced cues and explanations in instruction was also found to increase students' learning.

Academic achievement is related to the persistence and retention of students in higher education. Maddox (2005) found that: "...GPA is so highly related to persistence (*sic*) in this study, actions can be taken to help students maintain good grades are paramount..." (p. 3), and Hodges and White (2001) found that tutoring is a contributing factor to the academic success of students. The aim of the LRC is to support academic achievement through offering a variety of tutoring experiences to Lincoln students.

The online tutorial programs in the success laboratories give immediate feedback which has been linked to: "...a positive effect on both metacognitive and cognitive gains [in the use of an intelligent tutoring system]..." (Saadawi, Azevedo, Castine, Payne, Medvedeva, Tseytlin, Legowski, Judic, and Crowley, 2009, p. 10). The online tutoring

programs also generate pre and post test assessments, which are key to the evaluation of the effectiveness of the LRC tutoring program. The LRC provides personal contact and review lessons in addition to the online tutoring in each lab session.

Boylan, Bliss, and Bonham (1997) found that tutoring programs in postsecondary education that included the training of tutors were related significantly ($p \leq 0.05$) to higher first term GPA, higher cumulative GPA, and the retention of success course students. In consideration of that evidence, the LRC participates in the International Tutoring Program Certification (ITPC) of the College Reading and Learning Association and has earned certification at all three levels of the ITPC.

Attendance Summary

Below is a table that shows the attendance for all activities hosted by the LRC.

Total Attendance LRC Spring 2011

Program	Attendance
Reading	
(50 min@ session)	
Reading Lab Attendance	343
Reading Lab Make-Ups	27
Reading Drop-In Tutoring	66
Writing	
(50 min@ session)	
Writing Lab Attendance	587
Writing Lab Make-Ups	54
Writing Lab Tested out at Midterm	7
Writing Portfolio Program	
(50-60 min@ session)	
Ind/Grp Sessions	186
In-Class Workshops	43
Classroom Visits/Student Count	31/136
Individual Writing Tutoring	313
(30-90 min. session)	
Math	
(50 min@ session) :	
Math Lab Attendance	865
Math Lab Make-Ups and Drop-In Tutoring	123
Math Study Group	7
Individual Math Appointment/Drop-In Tutoring	192
(50 min@ session)	
Computer Lab Usage	1930
(10 -50 min @ session, printing out a paper to	

Program	Attendance
writing a paper and doing research on the Internet)	
Peer Tutoring Attendance (50 min@ session)	878
Student Development Workshops (60-90 min. @ session)	6
Act 101 (20-60 min. @ session)	141
TOTAL	5897

Individual Appointment and Drop-in Tutoring

The LRC provided professional individual appointment and drop-in tutoring for mathematics and reading/writing from 9:00 am to 5:00 pm Mondays through Fridays during spring 2011. Below are tables that show the attendance for the individual tutoring sessions by course.

Math Individual Tutoring

Course	No. of Sessions
MAT 098 Beginning Algebra	36
MAT 099 Alg. & Applications	41
MAT 106 Math for Liberal Arts	47
MAT 107 Finite Math	5
MAT 110 College Algebra	10
MAT 111 Pre-Calc	8
MAT 114 Elem. Stats	2
MAT 120 Cal/Soc Sci	16
MAT 121 Cal I	13
MAT 202 Math for Elem. Teachers	2
ACC 203	1
PRAXIS	2
PSY 210 Stats for Psych	1
Math Study Group	3
Math Unidentified	17
Total No. Sessions	203

Reading/Writing Individual Tutoring

Course/Subject	No. of Sessions
Advertising	1
Apprentice	1
Black Psych	1
Bus Research	1
Comp 102	2
Dev Psych	2
EDU 097	2
EDU 098	2
EDU 201	4
EDU 208	5
EDU 212	3
EDU 302	5
EDU 420	2
EDU Psych	3
EDU Tech	8
ENG 098	4
ENG 099	5
ENG 101	36
ENG 102	42
ENG 206	3
ENG 208	7
ENG Comp I	3
English Unidentified	47
Forensic Soc	1
FYE	22
Gen Psych	2
Grad Sch App	1
HIS 308	12
HIS 402	1
HON 300	3
HON 303	1
Honors Unidentified	2
HPR	2
HPR 415	1
Hum Geo	1
INT Sem	3
Int'l Fin Mgt	5
Macroeconomics	1
MGT 345	4
Oral Comm	1
Org Behavior	26
Personal St	5
Poly Sci App	2
PRAXIS	4
Psych Unidentified	10

EDU 097	1
RDG 098	2
Reading Unidentified	4
Research Unidentified	12
Research Paper Unidentified	1
Resume	4
Revise Paper (Unidentified)	2
School Letter	4
Spanish 102	2
Speech	1
Sr. Seminar Unidentified	16
World Lit	8
Writing Unidentified	28
Total Visits	387

Writing Portfolio Program

In spring 2011, the LRC collaborated with the several academic departments and provided writing tutoring in order to assist students in completing the Writing Portfolio requirement. Below is a table that lists the number of student visits per course.

Writing Portfolio Program Attendance

Course/Subject	No. Sessions
PHL 215	1
BIT 459	8
COM 302	8
COM 400	3
COM 402	4
COM 412	4
COM 495	1
ECO 201	2
ENG 101	5
ENG 102	4
ENG 207	4
ENG 208	2
ENG 212	1
ENG 410	2
FIN 347	1
HIST 308	10
MGT 435	75
PSY 101	1
PSY 207	1
PSY 316	1
REL 200	3
Not Listed	6
TOTAL No. Visits	150
No. Unduplicated Students	63

Peer Tutoring

Peer tutoring was provided by the LRC in spring 2011 Sundays through Thursdays from 5:00 pm to 11:00 pm. Below is a table that lists the number of tutoring sessions per course for peer tutoring.

Peer Tutoring Sessions by Subject Area

Subject	No. Sessions
Business	
Database	5
Business, not identified	3
Macroeconomics	2
INF	2
Microeconomics	1
Organizational Behavior	1
BUSINESS TOTAL	14
English	
English 099	5
English, not identified	65
English 101	8
ENG 102	6
Writing/Revise Paper	16
World Literature	
ENGLISH TOTAL	100
History/Politics	
Politics	1
History	1
International Relations	1
US Governance	1
HISTORY TOTAL	4
Languages	
Spanish	4
LANGUAGES TOTAL	4
Math	
ALEKS	1
MAT 099	3
Algebra, College MAT 110	10
Pre Calculus MAT 111	4
Calculus	17
Cal for Soc Sci MAT 120	9
Finite Math	5
Math for Liberal Arts MAT 106	32
Statistics MAT 114	13
Math, not identified	34
MATH TOTAL	128
Religion/Philosophy	
Religion 201	1
Philosophy	1

REL/PHILOSOPHY TOTAL 2	
Education	
Oral Communications	1
EDU 150	1
EDU Research Seminar	3
EDU Research paper	5
EDU Research 300	4
EDUCATION TOTAL 14	
Science	
Anatomy	5
Biology	7
Chemistry	1
Organic Chemistry	2
SCIENCE TOTAL 15	
Sociology	
Sociology, not identified	1
SOC 205`	1
SOCIOLOGY TOTAL 2	
Psychology	
Psych Stats	2
Psychology	1
PSYCHOLOGY TOTAL 3	
HPR	
Exercise/Physiology	19
Health Ed.	1
Health Science	12
HPR	1
HPR 130	2
HPR 207	2
HPR 208	3
Kinesiology	4
Wellness	1
HPR TOTAL 45	
EMAP/Study Hall	561
Grand Total No. Sessions	892

Computer Lab Usage

Students utilized the LRC Computer Lab for 1930 sessions to conduct research, compose papers and complete assignments. Sessions lasted anywhere from 5 to 10 minutes to several hours.

Tutoring Laboratories

The university offers two levels of success courses (Education, English, and/or Mathematics) that require attendance in a tutoring laboratory. Education success course students attended a reading lab for 50 minutes once per week for eleven weeks (including orientation); English success course students attended a writing lab for 50 minutes once per week for twelve weeks (including orientation). Math success course students attended a math lab twice a week for 50 minutes each for 13 weeks.

These tutoring lab sessions are facilitated by professional tutors, and consist of a mini review lesson on the topic of the week, and work on exercises and practice tests in an online tutoring program, *My Reading Lab* (Education), *My Writing Lab* (English), or *ALEKS* (Mathematics). Each online tutoring program includes a pre and post diagnostic assessment. Below is a table that shows the number of students in each tutoring laboratory.

Students Assigned to LRC Tutoring Laboratories

Below is a table that shows the number of students assigned to each tutoring laboratory and the total number of unduplicated students.

Students Assigned to LRC Tutoring Laboratories Spring 2011

Tutoring Laboratory	Number of Assigned Students
Reading	64
Writing	104
Math	90
Total	258
Total Unduplicated Students	202

Success Labs and Number of Students

Success students may have been required to attend one, two, or three labs during the spring 2011 semester. Below is a table showing the number of students in each category.

Number of Success Labs per Student

Number of Labs	Number of Students
One Lab	
Math Only	59
Writing Only	56
Reading Only	30
Two Labs	
Reading and Writing	23
Reading and Math	7
Writing and Math	15
Three Labs (Reading, Writing, and Math)	
	12

Lab Attendance and Grades

Below is a table that shows the difference between the earned average course grade for students who attended five or fewer sessions and students who attended six or more sessions in each lab. The factors influencing earned course grades included the students' work and effort, the professors' pedagogy, and the practice and time on task in the laboratory. Some students also attended one-on-one tutoring as well the tutoring laboratories. Please note that there are fewer than 30 students in the category in some categories.

Lab Attendance and Average Course Grades

LAB	AVERAGE COURSE GRADE FIVE OR FEWER LAB SESSION ATTENDANCE	NUMBER OF STUDENTS	AVERAGE COURSE GRADE SIX OR MORE LAB ATTENDANCE	NUMBER OF STUDENTS	DIFFERENCE IN COURSE GRADE
EDU 097	1.2	14	3.4	13	+2.2
EDU 098	1.8	12	2.8	22	+1.0
ENG 098	1.0	5	1.9	14	+0.9
ENG 099	2.0	31	2.8	42	+0.8
MAT 098	1.4	2	1.8	32	+0.4
MAT 099	1.0	8	1.6	25	+0.6

t-Test of Dependent Samples and Eta Squared

t-Test of Dependent Samples and Eta²

The paired sample t-test examines the differences in means between groups that are related, such as in a pretest and posttest situation of the same population. This comparison tests the effect of a treatment over time. The t-test examines the difference between the pretest and posttest to determine if the difference is statistically significant or due to random variation. While the t-test determines if the differences between two variables are significant, Eta², η^2 , measures the strength of the relationship between the two variables, the pretest and the posttest in this case. The difference between the pretest and the posttest may be significant and not due to random variation (t-test), but may be of a varying effect size. An η^2 result of 0.10 to 0.15 may be considered a strong effect size (Kiehl, 2002). The importance of the effect size is influenced by the consequences of the study itself, and in this study, the effect size ranged from approximately 0.2860 to 0.88, indicating that about 28% to 88% of the differences between variables could be attributed to the treatment in the intervening period of time between the pretest and the posttest. Eta² was determined using SPSS.

The t-test cannot determine the cause of any significant difference and, in this study, there could be several causes in the time interval between the pretest and posttest. Students attended the tutoring laboratory at least six times, attended classes facilitated by professors, and put in work and effort into their coursework and lab work. All three factors would have contributed to a significant increase in skills.

The difference between the pretest and posttest scores for students who attended six or more laboratory sessions was examined. Scores from a pretest and posttest for students in the Writing Lab and Math Lab and the initial and final reading grade levels for students in the Reading Lab were reviewed.

The table below indicates that there was a high level of statistical significance for the differences in the pretest and posttest, and a very robust effect. For the time interval of the spring 2011 semester, those students who attended at least six tutoring lab sessions and took both the pretest and posttest, improved significantly in skills. The improvement was not due to random variation.

Paired Samples t-Test and Measure of Effect, Eta²

Lab/Course	Number of Students	Average Pretest Score	Average Posttest Score	Degrees of Freedom df	Significance p value	Statistical Inference (alpha)	t-value	Measure of Effect Eta ²
Math 098	32	15.88	38.78	31	<.005	P<.01	-8.254	0.6873
Math 099	28	19.03	31.14	27	<.005	P<.01	-4.700	0.4500
Reading (EDU 097)	13	6.59	7.60	12	0.011	P=.011	-3.003	0.4291
Reading (EDU 098)	21	7.17	8.02	20	0.011	P=.011	-2.817	0.2841
Writing (ENG 098)	10	58.40	76.10	9	<.005	P<.01	-8.022	0.8773
Writing (ENG 099)	26	62.92	80.35	25	<.005	P<.01	-13.108	0.8730

Note 1: The difference in pre and post test scores is statistically significant at 99% if p-value is less than .01

Note 2: Only the students who have attended six or more labs and who have completed both the pre and post tests are included.

Note 3: Measure of effect = t^2 divided by (t^2 plus degrees of freedom)

Note 4: Measure of effect can be interpreted as percent variability in the posttest (the dependent variable) attributed to the pretest (the independent variable).

Note 5: For Reading Labs (EDU 097 & EDU 098) pre and post Fleisch grade levels were used.

Reading Laboratory

Overview

The Reading Laboratory provides academic support to students enrolled in Education 097 and 098. In addition, drop-in hours are scheduled for students who would like to have extra help with course work or assistance with a special assignment.

During the spring 2011 semester, EDU 097 and EDU 098 students used *MyReadingLab* as their primary lab coursework. Students read current selections in *MyReadingLab*, and then answered reading comprehension questions. The reading comprehension questions covered all the following topics: Main Idea, Supporting Details, Patterns of Organization, Inference, Critical Thinking, and Purpose and Tone. In addition to *MyReadingLab* coursework, students participated in tutor-led mini-lessons

prior to working on the online program. The mini-lessons introduced and focused on the skill area for the week. The reading comprehension level of each student is automatically evaluated at each reading selection, and a student's progress is recorded.

Below is the weekly agenda for the review mini-lessons and the work in the online tutoring program:

Reading Lab Syllabus

Classroom Visitations by Reading Tutors
Orientation & Registration for *My Reading Lab*
Reading Level Assessment
Vocabulary/Context Clues/Idioms
Main Idea/Supporting Details
Patterns of Organization/Sequencing
Inference
Critical Thinking/Conclusions
Purpose and Tone
Reading Level Assessment
Concise Writing
Study Skills
Test Taking

Reading Lab Logic Model

Following is the logic model of the Reading Lab that depicts the resources, activities and services, participants, and outcomes of the Reading Lab.

Reading Lab Logic Model

Inputs	Outputs		Outcomes -- Impact		
	<i>Activities</i>	<i>Participation</i>	<i>Short</i>	<i>Medium</i>	<i>Long</i>
<p>What we invest:</p> <ul style="list-style-type: none"> Professional Reading Tutors Mini lesson plans <i>MyReadingLab</i> One-on-one tutoring Computers Training for staff Preparation for mini lessons Help with writing papers 	<p>What we do:</p> <ul style="list-style-type: none"> Present mini lessons Help with <i>My Reading Lab</i> One-on-one revisions for papers 	<p>Who we reach:</p> <ul style="list-style-type: none"> Students Students' Families Faculty Administrators 	<p>This semester's results:</p> <ul style="list-style-type: none"> Increase Lexile score to college level Full lab attendance Increase drop-in rate for help with papers and make-up of missed labs 	<p>Next semester/next year's results:</p> <ul style="list-style-type: none"> Students increase their GPA EDU 097 students return for EDU 098 Remain academically successful Lincoln's retention rate increases 	<p>Results in 4/6 years and more:</p> <ul style="list-style-type: none"> Tutors gain the respect of faculty Increase students' graduation rate Lincoln's reputation increases Better prepared students enter Lincoln
<p>Assumptions:</p> <ul style="list-style-type: none"> Tutors will be retained and remain in the LRC and increase students' skills 			<p>External Factors:</p> <ul style="list-style-type: none"> LRC state and federal funding New facilities 		

Adapted from:
 University of Wisconsin-Extension (2003). *Enhancing program performance with logic models*. Retrieved from lmcourse@ces.uwex.edu.

Education 097

Average Course Grades and Lab Attendance

The table below compares the average grade earned per number of labs attended. Please note that there may be fewer than 30 students in each category of lab attendance. Students attending six or more labs earned an average course Grade of 3.4 while students attending five or fewer labs earned an average course Grade of 1.2.

EDU 097 Lab Attendance vs. Average Course Grade

No. Labs Attended	Avg. Course GPA	No. Students
1	0	1
2	0.4	4
3	1	4
4	2.7	1
5	2.1	4
6	4.0	1
7	3.3	3
8	3.25	4
9	3.7	3
10	3.3	1
11	2.3	1

Flesch Reading Grade Level

As part of the *MyReadingLab* online tutoring program, students complete a reading level assessment. The table below shows the reading level of Education 097 students at the beginning of the semester and at the end of the semester for those students who attended at least one lab session or more.

Education 097 Lab Attendance and Flesch Reading Grade Level

	Lexile Pretest Grade Level	Lexile Posttest Grade Level	Percent Improvement Lexile Score
Overall	6.6	7.6	15%
Range	5-9.5	4.3-11.9	

Education 098

Average Course Grade and Lab Attendance

The table below shows the average course grade per number of lab sessions attended. Please note that there were fewer than 30 students in each category of attendance. The average course Grade for students attending five or fewer lab sessions was 1.8 while the average for students attending six or more sessions was 2.8.

Education 098 Lab Attendance and Average Course Grade

No. Labs Attended	Avg. Course GPA	No. Students
1	1	2
2	1.8	5
3	1.7	1
4	1.9	3
5	3	1
6	1.9	4
7	2.8	8
8	2.5	2
9	2.2	3
10	3.3	3
11	4.0	2

Flesch Reading Grade Level

Students complete a reading level assessment during the pre-diagnostic assessment. The table below shows the entering reading level of Education 098 students and the reading level at the end of the semester for students who attended six or more sessions.

Education 098 Flesch Reading Grade Level

	Lexile Pretest Grade Level	Lexile Posttest Grade Level	Percent Improvement Lexile Score
Overall	7.2	8.0	11%
Range	5-9.5	5-11.9	

Student Survey

Thirty-five students responded to the end-of-semester survey. Approximately 94% respondents agreed or strongly agreed that My Reading Lab online tutoring was helpful. Ninety-seven percent (97%) of respondents agreed or strongly agreed that the mini-lessons were helpful, and 91% responded that the tutors were helpful. Eighty-three percent (83%) of respondents agreed or strongly agreed that they benefited from the online tutoring, and 97% agreed or strongly agreed that they benefited from the mini-lessons. Ninety-one percent (91%) of respondents agreed or strongly agreed that they benefited from help from the tutors. Ninety-seven percent (97%) of the respondents were satisfied or greatly satisfied with the Reading Lab experience, and 88% agreed or strongly agreed that the online reading selections helped them improve their reading comprehension. Eighty-two percent (82%) of respondents agreed or strongly agreed that they had enough time on the computer to maximize their Lexile score.

Responses to the question requesting suggestions on improving the Reading Lab included: “It is good the way it is”, “Get new computers or clean the systems because the computers operate very slow”, or, “give students more make up time, if they missed any days!” “Because teachers are grading the students from their reading lab attendance, and we can fail just from not coming, so more make up times and dates would help the students out tremendously.” Additional responses included: “Slow computers”, or “More make up time”. One suggestion would be to have campus IT maintenance give the computers a “cookie” cleanup once per month.

Professor Survey

One professor strongly agrees that the students found the Online Reading selections, mini-lessons, and tutors helpful, and, benefited from the above. On the other hand, the professor agrees that the Lexiles (reading grade level) component of *MyReadingLab* is helpful. The professor’s suggestion is, “perhaps we could develop a system of addressing the major topics of critical reading at the same time during the semester.”

The professor’s suggestion is a very good one and is one that we have continually revisited in the Reading Lab. Our current procedure has been to look at each Education professor’s syllabus and try to schedule our mini-lessons at the same time for each critical reading topic. A major obstacle in this plan, however, is that not all professors present their topics in the same order.

Student Learning Outcomes

The Reading Laboratory staff devised the following goal for the Reading Laboratory: students will demonstrate the ability to read and comprehend on the college level in the skill areas of supporting details, purpose and tone, main idea, and inference. The goal is student completion of all practice exercises and tests. The tables completed in the student learning outcomes follow.

Reading Lab Student Learning Outcomes

Student Learning Outcomes	Assessment Method	Findings	Modified Student Learning Outcomes	Action Plan
<p>EDU 097 students will increase their reading grade level (Lexile) by at least 20%.</p> <p>EDU 098 students will increase their reading grade level (Lexile) by at least 20%</p>	<p>Completion of reading selections and question sets in <i>MyReadingLab</i>.</p> <p>Comparison of earned course grade vs. lab attendance.</p>	<p>Overall, EDU 097 students who attended at least six labs increased their reading grade level (Lexile) by at least 15%.</p> <p>Overall, EDU 098 students who attended at least six labs increased their reading grade level (Lexile) by at least 11%.</p>	<p>EDU 097 students will increase their reading grade level (Lexile) by at least 20%.</p> <p>EDU 098 students will increase their reading grade level (Lexile) by at least 15%.</p>	<p>EDU 097 and 098 will complete Lexile Diagnostic and Lexile Reading exercises.</p> <p>Tutors will provide a mini-lesson each week on the week's topic in the syllabus, along with an interactive exercise.</p> <p>Tutors will use a review packet of mini-lessons at the end of each semester to increase Lexile scores and help them on their final exam.</p> <p>Tutors will use the poster board model to create Smart Board activities.</p> <p>Tutors will interact closely with students when they are at the computer.</p>

SWOT Analysis and Action Plan

SWOT

<p>Strengths: What is done well?</p> <p>Tutors provide twenty minute mini-lessons which are rigorous and efficient.</p> <p>Professional staff with graduate degrees in Education, Reading, Curriculum and Instruction and ESL.</p> <p>Professional Tutor Certification through the College of Reading and Learning Association (CRLA)</p> <p>Tutors direct students in the use of Internet resources such as Dictionary.com to aid their efforts with My Reading Lab.</p> <p>Tutors encourage students to have perfect attendance and to make up any labs that they might miss (up to two labs)</p> <p>Use of interactive poster board activities to enhance mini-lessons.</p> <p>Tutors are engaged in reading texts and literature to enhance mini-lessons and teaching.</p>	<p>Weaknesses: What can be improved?</p> <p>Students sometimes lose enthusiasm for the Reading Lab because they do not get a credit for attending the Reading Lab.</p> <p>Students' confusion about the relationship between lab/course, performance and final grade in classroom. The lack of funding and low salaries.</p> <p>Lack of sufficient design for the post test; consequently, some students had negative attitude toward improving current Lexile scores.</p>
<p>Opportunities: What opportunities are open?</p> <p>Students receive daily feedback during prepared mini lessons.</p> <p>Multi-layered program with specific requirements for EDU O97 students and O98 students that complement each other.</p> <p>Continued availability of tutors for extra help with class work during the drop-in hours from 3-5, four days a week.</p> <p>Continued collaboration with Education department.</p> <p>Continuation of recognition program, including certificates for perfect attendance.</p>	<p>Threats: What are the obstacles?</p> <p>Reading level of majority of students is significantly below average college reading level.</p> <p>Precarious funding for MRL and staff positions.</p> <p>The actual lab period of 50 minutes once a week is insufficient time on task for reading students with low reading scores.</p>

Action Plan	
Improvement	Based on this Evidence
<p>For Fall 2011, EDU 098 and 097 students will apply knowledge of reading skills attained from the mini-lessons to the Lexile exercises.</p> <p>Tutors will present more interactive mini-lessons, use of graphics for visual appeal, based on the skill areas.</p> <p>Turn the poster board activities into smart board teaching.</p> <p>Tutors will continue to present mini-lessons aligned with the programs, syllabus, and engage students.</p> <p>Have all tutors interact closely with students when they are at the computers.</p> <p>Students are to show mastery from pre to posttests.</p> <p>Continue to implement a recognition program: gift certificates from Domino's, and Herr's coupon for lab completion/ high scores, names on Perfect attendance banner, and a feature in the LRC newsletter.</p> <p>Continue classroom visitations by the Reading Tutors of EDU 097 and 098 classes to introduce the students to the lab and demonstrate the cohesiveness between class and the lab.</p>	<p>Recommendations from the Education Department.</p> <p>Boylan's <i>What Works: Research-based Best Practices in Developmental Education</i> (2002).</p> <p>Boylan (2002) & The Center for Student Success (2007):</p> <p><i>Align lab work with course work, Small instructional groups, teach learning strategies in a variety of contexts, teach theories behind strategies, self-monitoring of comprehension through immediate feedback to students, active learning: group learning that is task or problem-centered.</i></p> <p>My Reading Lab Curriculum Diagnostic Testing</p> <p>Brophy (1988) found that increased time on task improved students' skills.</p>

Writing Laboratory

Overview

The Writing Laboratory acts as an adjunct to English 098 and English 099 courses. It also hosts drop-in hours when students can receive help with papers and assignments or work quietly on their own. Many students do, in fact, avail themselves of tutorial assistance or come in to do coursework.

In order to assess students' needs, tutors administer the online diagnostic pre-test in *MyWritingLab* at the beginning of the semester; the test is divided into four parts: Sentence Grammar, Usage and Style, Punctuation and Mechanics, and Basic Grammar. This assessment is part of the curricula set forth in [My Study Plan](#), which takes the student through the four content areas. As per the results of their pre-tests, students can then work through subject areas of greatest need. Students complete the Recall and

Apply exercises within each module of My Study Plan progressively. These exercises are designed to move students from literal comprehension (Recall) to critical comprehension (Apply).

My Study Plan

- Part 1 – **Getting Started** consists of prewriting, writing, revising, and editing in three sequential steps: *Exploring the Writing Process, Prewriting to Generate Ideas and Getting Started*.
- Part 2 - **The Paragraph** is comprised of four areas: *Recognizing a Paragraph, The Topic Sentence, Developing and Organizing a Paragraph and Revising a Paragraph*. It teaches students to successfully develop paragraphs.
- Part 3 – **Paragraph Development** includes comprehensive exercises that cover *Illustrating, Narrating, Describing, Process, Definition, Comparing and Contrasting, Division/Classification, Cause and Effect and Argument*. These components help students fully develop their writing ideas in all areas of writing.
- Part 4 – **The Essay** Includes the following areas: *Recognizing the Essay, Essay Organization, Editing the Essay, Revising the Essay, Illustrating, Narrating, Describing, Process, Definition, Comparing and Contrasting, Division and Classification, Cause and Effect, Argument, Essay Introduction, Conclusions and Titles, and Research Process*. These components help students to focus on a specific subject, a single purpose, and a particular audience.
- Part 5 – **Sentence Improvement** takes students through exercises in: *Consistent Verb Tense and Active Voice, Parallelism, Varying Sentence Structure, Combining Sentences, and Misplaced or Dangling Modifiers*, which are designed to enhance and expand students’ abilities to construct more expressive sentences.
- Part 6 – **Sentence Basics** includes: *Parts of Speech, Phrases and Clauses, Subjects and Verbs, Run-ons, Fragments, Subject-Verb Agreement, Tense, Regular and Irregular Verbs, Noun, Pronoun Reference, Pronoun Antecedent Agreement, Prepositions, Adjectives, Adverbs, Apostrophes, Commas, Capitalization, Quotation Marks, Final Punctuation, and Semicolon, Colons, Dashes, and Parentheses*, which cover the mechanics of sentence structure.
- Part 7 – **Spelling** is comprised of two sections: *Spelling and Easily Confused Words*; it covers basic rules and commonly misspelled and easily confused words.

Tutors normally start the writing lab session by presenting a mini lesson; afterwards, students do reinforcement exercises on *MyWritingLab*, an online program. In addition, tutors help students revise and edit their papers and provide clarification for topics covered online. Mini-lessons cover subjects such as grammar, usage, mechanics, and the process of organizing, drafting, revising, and editing a paragraph. The following is a sample Mini-lesson schedule for a typical semester.

Writing Lab Syllabus

Orientation
Pretest
Introductory Paragraph: Topic Sentence and Thesis Statement
Parts of Speech
Identifying Subject/Verb, Subject/Verb Agreement
Midterm Posttest
Fragments
Pronouns: Reference Case, Antecedent Agreement
Run-ons/Comma Splices
Revising
Posttest

At the end of the course, students take the online posttest, which measures their progress in the four areas initially covered in the pretest: Sentence Grammar, Usage and Style, Punctuation and Mechanics, and Basic Grammar. Students are genuinely happy with the strides they have made during the semester.

This spring, many students made an effort to achieve an over-all score of greater than 65 percent on their pretests, so that they would then have the opportunity to take the posttest at midterm and, hopefully achieve a score of 85 percent or better, so that they would be exempt from the Writing Lab for the remainder of the semester. As a result, for the first half of the semester, students were generally more faithful in attending and making up labs.

MyWritingLab is not a cure-all for writing and grammar ills, but it does provide valuable review and practice. It has proved useful in assisting students in improving their grammar skills.

The Writing Lab is constantly being adapted to meet student needs. The tutors continually review and implement strategies to improve the lab's effectiveness. Tutors enjoy providing students with the academic support despite the challenges that understaffing and largely underprepared students provide.

Writing Lab Logic Model

Following is the logic model of the Writing lab that depicts the services, activities, participants, and outcomes of the Writing Lab.

Writing Lab Logic Model

Inputs	Outputs		Outcomes -- Impact		
	<i>Activities</i>	<i>Participation</i>	<i>Short</i>	<i>Medium</i>	<i>Long</i>
<p>What we invest:</p> <p>Professional Writing Tutors</p> <p>Lessons and Exercises</p> <p><i>MyWritingLab</i> software</p> <p>Assistance for all student writing</p> <p>Conducive lab environment</p> <p>Computer and Internet Access</p>	<p>What we do:</p> <p>Writing Labs that address grammar and writing individual needs</p> <p>Drop-in and one-on-one services</p> <p>Appointment tutoring</p> <p>Writing Portfolio Assistance</p> <p>Student development workshops</p>	<p>Who we reach:</p> <p>Students</p> <p>Students' Families</p> <p>Faculty</p> <p>Administrators</p> <p>Campus</p>	<p>First Year results:</p> <p>Campus-wide view of the Writing Lab as an opportunity for students to attain college level writing skills</p> <p>Students gain an understanding of the structure of an essay</p> <p>Ability to construct a topic sentence and thesis statement with areas of support</p> <p>General knowledge of proper grammar and punctuation</p> <p>Students are encouraged to utilize lab regularly</p> <p>Faculty visits lab and interacts with tutors</p>	<p>Second year results:</p> <p>Ability to construct a thesis driven essay</p> <p>Students utilize the LRC on a regular basis</p> <p>Expansion of students' vocabulary</p> <p>Ability to conduct research properly</p> <p>Understanding of proper work citation</p>	<p>Four year results:</p> <p>Students are able to write proficiently across the curriculum</p> <p>Satisfaction of writing portfolio requirements</p> <p>Ability of students able to write a comprehensive and coherent response to graduate level exams</p>
<p>Assumptions:</p> <p>Following best practices in our services will help students increase their skills.</p> <p>Increased student skills will improve retention and graduation rates.</p> <p>Increased graduation rates will help attract better prepared students and improve Lincoln's reputation.</p>			<p>External Factors:</p> <p>Location</p> <p>Economy</p> <p>State and Federal funding</p>		

Adapted from:

University of Wisconsin-Extension (2003). *Enhancing program performance with logic models*. Retrieved from lmcourse@ces.uwex.edu.

English 098

Average Course Grade and Lab Attendance

The average course grade for students attending five or fewer lab sessions was 1.0, and for students attending six or more sessions was 1.9. Generally, the more labs attended, the higher the grade earned. Please note that there may be fewer than 30 students in each category of lab attendance.

ENG 098 Lab Attendance and Course Grade

No. Labs Attended	Avg. Course GPA	No. Students
2	0.7	3
4	1.7	1
5	1.3	1
7	1.7	3
8	1.3	6
9	2.0	1
11	2.2	2
13	2.6	2

My Writing Lab Diagnostic Assessment

The table below shows the average improvement from pretest to posttest in the four general categories for 40 English 098 students who took both the pretest and posttest.

English 098 Average Percent Improvement

Category	Average Pretest Score	Average Posttest Score	Average Percent Improvement
Sentences	44%	66%	50%
Punctuation	70%	76%	9%
Usage	58%	88%	52%
Basic Grammar	63%	76%	21%
Overall	58%	76%	31%

Diagnostic Detail

Forty students completed all the diagnostic detail sections in both the pretest and posttest. The table below shows the scores and the percent improvement for each category.

English 098 Diagnostic Detail Improvement

Topic	Average Pretest	Average Posttest	Average Percent Improvement
Adjectives	56%	74%	32%
Adverbs	72%	80%	11%
Apostrophes	66%	76%	15%
Capitalization	52%	66%	27%
Commas	80%	68%	-15%
Consistent Verb Tense and Active Voice	52%	74%	42%
Easily Confused Words	66%	96%	45%
Fragments	32%	76%	138%
Parallelism	50%	80%	60%
Parts of Speech, Phrases and Clauses	28%	54%	93%
Pronoun Case	40%	74%	85%
Pronoun Reference and Point of View	72%	82%	14%
Pronoun Antecedent Agreement	18%	54%	200%
Quotation Marks	76%	70%	-8%
Regular and Irregular Verbs	40%	80%	100%
Run-Ons	78%	64%	-18%
Spelling	74%	86%	16%
Subjects and Verbs	38%	66%	74%
Subject-Verb Agreement	42%	58%	38%
Tense	94%	74%	-21%

English 099

Average Course Grade and Lab Attendance

The average course grade for students attending five or fewer lab sessions was 2.0, and for students attending six or more sessions the average course grade was 2.8. The table and chart below indicate that, generally, the greater number of labs attended the higher the grade earned. Please note that there may be fewer than 30 students in each category of lab attendance in the table below.

ENG 099 Lab Attendance and Average Course Grade

No. Labs Attended	Avg. Course GPA	No. Students
1	2	8
2	1.6	7
3	1.7	5
4	2.3	7
5	2.7	4
6	2.8	8
7	2.9	9
8	1.4	3
9	3.1	5
10	3.1	7
11	3.3	5
12	3.3	4
13	3.7	1

My Writing Lab Diagnostic Assessment

The table below shows the average percent improvement from pretest to posttest in the four general areas for 86 English 099 students.

English 099 Average Percent Improvement

Category	Average Pretest Score	Average Posttest Score	Average Percent Improvement
Sentences	53%	78%	47%
Punctuation	70%	78%	11%
Usage	66%	87%	32%
Basic Grammar	63%	80%	27%
Overall	63%	80%	27%

ENG 099 Diagnostic Detail

Eighty-six ENG 099 students completed all sections of the diagnostic detail components of the pretest and posttest. The table below shows the scores and the percent improvement.

English 099 Diagnostic Detail Improvement

Topic	Average Pretest	Average Posttest	Average Percent Improvement
Adjectives	59%	75%	27%
Adverbs	74%	77%	4%
Apostrophes	57%	82%	44%
Capitalization	69%	72%	4%
Commas	70%	68%	-3%
Consistent Verb Tense and Active Voice	55%	82%	49%
Easily Confused Words	71%	91%	28%
Fragments	48%	65%	35%
Parallelism	58%	84%	45%
Parts of Speech, Phrases and Clauses	48%	80%	67%
Pronoun Case	37%	85%	130%
Pronoun Reference and Point of View	79%	90%	14%
Pronoun Antecedent Agreement	32%	66%	106%
Quotation Marks	75%	76%	1%
Regular and Irregular Verbs	49%	76%	55%
Run-Ons	74%	78%	5%
Spelling	76%	86%	13%
Subjects and Verbs	58%	80%	38%
Subject-Verb Agreement	53%	73%	38%
Tense	88%	88%	0%

Student Survey

Students were asked to complete a survey regarding their impressions, observations and any improvement in their grammar from the mini lessons and computer exercises.

Approximately 88% of respondents agreed or strongly agreed that the writing tutors helped them improve their writing. 77% agreed or strongly agreed that meeting with the writing tutors helped them improve their grade.

In responding to the question, “Did the Writing Lab help you in the following areas: Grammar, Vocabulary, Paragraph Writing and Essay Writing:”

- Eight students stated that they had improved in pronoun usage, particularly pronoun/antecedent agreement.
- Two students stated that they now understand how second person point of view is misused.
- Five students noted an overall improvement in their writing.
- Five students indicated that they are able to identify fragments and change them into complete sentences.
- Two students indicated improvement in comma usage and general punctuation.
- One student indicated a better understanding of subject/verb agreement.
- Four students commented on thesis and topic help. One student commented that she/he learned, “how to properly create a thesis statement and a topic sentence.”
- One student noted, “I would say that the Writing Lab has helped me improve on many skills over the semester.” While not quantifiable, overall assistance serves to build confidence and reduce writing apprehension.
- Three students stated that they did not learn anything new. However, it is almost impossible to evaluate these comments. For example, in response to the question, “What did you learn in the Writing Lab that you did not know before this semester?” One student replied, “Nothing I just improved.” In other words, they could not articulate anything in particular, but cited improvement.

In responding to the second question, concerning how to improve the Writing Lab:

- Fifteen students had suggestions for improvement such as time frame issues, flexibility and lab length. Three students wanted more flexibility. Two wanted more convenient times. Two students want lab to be optional. One student wrote, “I don’t feel as though the only way to stop taking lab is to test out. I feel as though if a student is showing progress and always coming to his or her lab then [there] should be a way that that individual can stop coming.”

- Suggestions were made to improve vocabulary, thesis writing, group work, handouts, and hands-on work. Along those lines, one student believed there should be more actual writing and tutoring of their own written samples.
- Eleven students stated they did not have any suggestions for improving the lab. In regards to other options than testing out, starting in the Fall of 2011, a student who achieves mastery of 20 identified subjects will be exempt from coming to lab for the rest of the semester upon demonstration of adequate skill levels on a post-test.

Professor Survey

Two professors responded to the End of Semester Survey. They both stated that they found the initial classroom visit helpful. Both professors wrote that thesis execution with proper development was the most important element for mastery in freshman writing proficiency. One wrote that all grammar skills are important; the other stated specifically that fragments, run-ons, comma-splices, subject/verb agreement, verb forms and tenses, point of view/pronoun use (avoiding second person) were among the most important skills for freshman writing proficiency. Both found the electronic program, *MyWritingLab*, to be user friendly. In addition, both professors suggested that the Writing Lab itself could improve its treatment of the writing process and revision habits. One suggested that workshops in these areas are greatly needed.

Student Learning Outcomes

The Writing Lab reviewed and modified the student learning outcomes that were written for fall 2010 as a tool for improving the lab's effectiveness. The table following describes the student learning outcomes and their assessment.

Writing Lab Student Learning Outcomes

Student Learning Outcomes	Assessment Method	Findings	Modified Student Learning Outcomes	Action Plan
<p>Students will increase their skills in the area of Sentence Grammar.</p> <p>English 098 students will show a 50% improvement from the pretest to the posttest in Sentence Grammar for those who attend six or more sessions.</p> <p>English 099 students will show a 33% improvement from the pretest to the posttest in Sentence Grammar for those who attend six or more sessions.</p>	<p>Results of individual study plans of <i>MyWritingLab</i> online program.</p> <p>Results of pre and post diagnostic tests.</p>	<p>For students who attended six or more sessions:</p> <p>English 098 students show a 50% improvement in Sentence Grammar.</p> <p>English 099 students show a 47% improvement in Sentence Grammar.</p> <p>Improvement in the area of Sentence Grammar may be influenced by the following:</p> <ol style="list-style-type: none"> 1. The Sentence Grammar portion of the test covers eight different areas of grammar and is the largest part of the test. 2. Low enrollment in 098 allowed students more opportunities for individual attention. 	<p>Students will increase their skills in the area of Sentence Grammar.</p> <p>English 098 students will show a 53% improvement from the pretest to the posttest in Sentence Grammar for those who attend six or more sessions.</p> <p>English 099 students will show a 50% improvement from the pretest to the posttest in Sentence Grammar for those who attend six or more sessions.</p>	<p>Students will improve Sentence Grammar by:</p> <p>Focusing on mastering all Grammar Sentence areas in My Study Plan</p> <p>Writing sentences and paragraphs</p> <p>Receiving tutor assistance with the online program</p> <p>Tutors giving students two review lessons during the semester to help reinforce Grammar facts</p>

Writing Lab Student Learning Outcomes

Student Learning Outcomes	Assessment Method	Findings	Modified Student Learning Outcomes	Action Plan
<p>Students will increase their skills in the area of Usage and Style.</p> <p>English 098 students will show a 30% improvement from the pre test to the post test in Usage and Style for those who attend six or more sessions.</p> <p>English 099 students will show a 25% improvement from the pretest to the posttest in Usage and Style for those who attend six or more sessions.</p>	<p>Results of individual study plans of <i>MyWritingLab</i> online program.</p> <p>Results of pre and post diagnostic tests.</p>	<p>For students who attended six or more sessions:</p> <p>English 098 students show a 52% improvement in Usage and Style.</p> <p>English 099 students show a 32% improvement in Usage and Style.</p> <p>Improvement in the area of Usage and Style may be influenced by the following:</p> <ol style="list-style-type: none"> 1. Low enrollment in 098 allowed students more opportunities for individual attention. 	<p>Students will increase their skills in the area of Usage and Style.</p> <p>English 098 students will show a 55% improvement from the pretest to the posttest in Usage and Style for those who attend six or more sessions.</p> <p>English 099 students will show a 35% improvement from the pretest to the posttest in Usage and Style for those who attend six or more sessions.</p>	<p>Students will improve Usage and Style by:</p> <p>Focusing on mastering all Usage and Style areas in My Study Plan</p> <p>Writing sentences and paragraphs</p> <p>Receiving tutor assistance with the online program</p> <p>Tutors giving students two review lessons during the semester to help reinforce grammar facts</p>
<p>Students will increase their skills in the area of Punctuation and Mechanics.</p> <p>English 098 students will show a 10% improvement from the pretest to the posttest in Punctuation and Mechanics for those who attend six or more sessions.</p> <p>English 099 students will show a 10% improvement from the pretest to the posttest in Punctuation and Mechanics for</p>	<p>Results of individual study plans of <i>MyWritingLab</i> online program.</p> <p>Results of pre and post diagnostic tests.</p>	<p>For students who attended six or more sessions:</p> <p>English 098 students show a 9% improvement in Punctuation and Mechanics.</p> <p>English 099 students show a 11% improvement in Punctuation and Mechanics.</p> <p>Little or no improvement in the area of Punctuation and Mechanics may be influenced by the following:</p>	<p>Students will increase their skills in the area of Punctuation and Mechanics</p> <p>English 098 students will show a 12% improvement from the pretest to the posttest in Punctuation and Mechanics for those who attend six or more sessions.</p> <p>English 099 students will show a 15% improvement from the pretest to the posttest in Punctuation and</p>	<p>Students will improve Punctuation and Mechanics by:</p> <p>Focusing on mastering Punctuation and Mechanics areas in My Study Plan</p> <p>Writing sentences and paragraphs</p> <p>Receiving tutor assistance with the online program</p> <p>Tutors giving students two review lessons during the</p>

Writing Lab Student Learning Outcomes

Student Learning Outcomes	Assessment Method	Findings	Modified Student Learning Outcomes	Action Plan
those who attend six or more sessions.		1. The area of Punctuation and Mechanics on the diagnostics is very brief; answering a few questions incorrectly significantly lowers the grade for that area.	Mechanics for those who attend six or more sessions.	semester to help reinforce grammar facts Putting emphasis on Commas and Apostrophes in lessons
<p>Students will increase their skills in the area of Basic Grammar.</p> <p>English 098 students show a 20% improvement in Basic Grammar.</p> <p>English 099 students show a 25% improvement in Basic Grammar.</p>	<p>Results of individual study plans of <i>MyWritingLab</i> online program.</p> <p>Results of pre and post diagnostic tests.</p>	<p>For students who attended six or more sessions:</p> <p>English 098 students show a 21% improvement in Basic Grammar.</p> <p>English 099 students show a 27% improvement in Basic Grammar.</p> <p>Little to no improvement in the area of Basic Grammar may be influenced by the following:</p> <p>1. More emphasis was put on Sentence Grammar rather than Basic Grammar. Basic Grammar consists of knowing all parts of speech.</p>	<p>Students will increase their skills in the area of Basic Grammar.</p> <p>English 098 students show a 25% improvement in Basic Grammar.</p> <p>English 099 students show a 30% improvement in Basic Grammar.</p>	<p>Students will improve Basic Grammar by:</p> <p>Focusing on mastering Basic Grammar topics in My Study Plan</p> <p>Writing sentences and paragraphs</p> <p>Receiving tutor assistance with the online program</p> <p>Tutors giving students two review lessons during the semester to help reinforce grammar facts</p> <p>Display charts on all walls of Writing Lab depicting the parts of speech and their functions.</p>

SWOT

Strengths: What is done well?	Weaknesses: What could be improved?
<p>Evaluation of success indicators has resulted in collaboration on content goals between ENG 098 and 099 professors and Writing Lab tutors. Both groups agreed to move to a mastery system addressing core skills of college English grammar.</p> <p>The Writing Lab has expanded its services to include assisting the <i>Resolve</i> Pilot Program with tutor services. Tutors are available in the Roscoe Lee Browne Writer’s Studio within University Hall every weekday from 10 a.m. to 3 p.m.</p> <p>Tutors developed several writing workshops that were presented in a broad range of academic disciplines. These sessions were well received and resulted in increased attendance at the Writer’s Studio. Many professors extended invitations to return and even broaden the range of content.</p> <p>Tutors continue to attend the first meeting of the English 098 and 099 classes which demonstrates unity of purpose between the English department and the Writing Lab.</p> <p>Tutors continue to offer extended hours for make-up labs and drop-ins for students seeking professional tutoring. This has greatly increased awareness of the accessibility and attendance for Writing Lab services to all Lincoln University Students.</p> <p>The Writing Lab has a professional staff that is dedicated to nurturing student success. All of the tutors have earned CRLA Level I & II certification and continue training on a regular basis each semester. The tutors bring work experience from the public school system, ESL instruction, university level teaching, adult literacy, law and entrepreneurship.</p>	<p>The success of those attempting to test out at mid-term dropped off considerably, partially due to raising the test-out requirement to 85% (from 80%) and also from poor attendance.</p> <p>Factors for poor student attendance include the following potential causes:</p> <ol style="list-style-type: none"> 1. Since students are not given graduation credit for Success Labs or the parent course (ENG 098 or 099), students are not motivated to attend the lab. 2. The LRC continues to have a credibility issue. The student population still believes that the LRC exists for Success students and not the general student population. 3. Since students do not receive a letter grade for the Writing Lab, there is a tendency to not attend the lab sessions. There is no uniformity among professors teaching 098 and 099 about how best to incorporate lab work in the overall grade for the course. <p>Students with low proficiency in reading and writing are often hesitant to participate in lab sessions, which can result in a refusal to accept or seek help which ultimately leads to failure. One weekly 50-minute lab session is insufficient time for students to complete all activities and less time is spent on tutoring writing and specifically addressing individual writing needs.</p>

Opportunities: What are the opportunities open?	Threats: What are the obstacles?
<p>In spring 2011, the Learning Resource Center co-managed the implementation of the pilot Writing Portfolio Program, <i>Resolve</i>. The LRC should completely absorb the <i>Resolve</i> Program, as part of its services offered.</p> <p>Design student development workshops and increase in-class presentations of workshops in order to improve students' skills and knowledge of the writing process and expand the visibility of the LRC.</p> <p>Creation of a mastery system addressing core skills of college grammar, to improve students' proficiency in reading and writing.</p>	<p>Lack of competitive salaries or salary raises contributes to low tutor retention and high tutor turnover.</p> <p>Misrepresentation of the LRC's target population on Lincoln's campus hinders the LRC from effectively servicing all of Lincoln's students . An example of the misrepresentation, the LRC only provides services to Success students.</p> <p>Some of the university's faculty population holds a poor perception of the LRC which results in lack of support from individual faculty or entire departments.</p> <p>Success students project a negative attitude towards the Writing Lab which diminishes students' motivation and results in a decline in attendance during the semester.</p>

Action Plan

Improvement	Based on this Evidence
<p>The Writing Lab will focus on grammar mastery. The student will be required to master 20 identified areas of the 26 total areas of the Study Plan in <i>MyWritingLab</i> at 80%.</p> <p>Students in English 098 and English 099 will be required to score 85% on the posttest. Students will be allowed to take the posttest twice.</p>	<p>"Mastery Learning in the College Learning Center." Paper presented at the National Association for Remedial/Developmental Studies Conference (Little Rock, AR, March 1983). The study concluded that "students must comprehend what tasks are to be learned, what procedures are to be followed, and what evaluative instruments are to be used" in order for there to be success.</p>
<p>The following topics are the 26 areas in which students will develop core skills in English grammar: Topic Sentence; Revising the Paragraph; Thesis Statement; Subject and Verbs; Fragments; Subject-Verb Agreement; Tense; Regular and Irregular Verbs; Run-Ons; Pronoun-Antecedent Agreement; Pronoun Reference and Point of View; Pronoun Case; Consistent Verb Tense & Active Voice; Parallelism; Capitalization; Commas; Apostrophes; Quotation Marks; Easily Confused Words; Parts of Speech, Phrases and Clauses.</p>	<p>Input from Lincoln University's English Department.</p>
<p>In weeks six and eleven, the tutors will review previously covered material.</p>	<p><i>Adult Literacy and Basic Skills Unit</i>, Kingsbourne House, 229-231 High Holborn, London, England WC1V 7DA, United Kingdom. "A self-assessment checklist enables students to focus on their progress."</p>

Improvement	Based on this Evidence
Tutors will use the students' original essays in order to demonstrate grammar in the context of authentic student writing.	Boylan's <i>What Works: Research-based Best practices in Developmental Education (2002) & The Center for Student Success (2007)</i> : Positive feedback related to a specific task/activity. Student Survey.
Our newly minted <i>Resolve</i> Program will enable students to have customized guidance pertaining to individual or collective writing needs.	Boylan's <i>What Works: Research-based Best practices in Developmental Education (2002) & The Center for Student Success (2007)</i> .
The Writing Lab will increase its hands-on activities to help facilitate the mastery topic of punctuation, run-on sentences, and tense in order to improve students' writing aptitude.	Boylan's <i>What Works: Research-based Best practices in Developmental Education (2002) & The Center for Student Success (2007)</i> : Accommodate diversity through varied instructional methods. Use technology with moderation. Brophy (1988) found that increased time on task improved students' skills. Student survey.
Professional tutor responsibilities will include tutoring and assisting students in the Writing Lab, being available to assist "drop-in" students with writing, and assist juniors and seniors in preparing for the advent of the writing portfolio graduation requirement.	Boylan's <i>What Works: Research-based Best practices in Developmental Education (2002) & The Center for Student Success (2007)</i> . Student Survey.

Mathematics Laboratory

Overview

Spring 2011 was distinct as the laboratory had five full time tutors, smaller groups of students most of whom were eager about learning the fundamental mathematics skills and improved faculty relations. At the beginning of the semester, the tutors visited the Math classes not only for the purpose of orientation, but also creating familiarity with the students. The students were gratified by their improved performance and/or understanding of the subject matter which served to reinforce their continued attendance at the labs. Some of those resilient students earned the distinction of "perfect attendance" with their names displayed in the math labs at the close of the semester.

The lab sessions met from 10:00 am to 3:00 pm daily. Individual tutoring and making up missed labs took place between the hours of 3:00 pm and 5:00 pm. In addition, there was a designated professional math tutor at Dickey Hall from 9:00 am to 5:00 pm daily, available for Mathematics students at all levels. Students from MAT 098 & 099 to more advanced level math courses such as Calculus and Statistics graced our labs and utilized the available resources. The success courses (MAT 098 & 099) students were required to attend labs twice per week and advised to spend at least five hours on the interactive and self-paced ALEKS program. We observed that many students

followed this advice and two of them came very close to completing the ALEKS pie, which reflects mastery of most basic concepts.

The College Reading and Learning Association (CRLA) certified tutors motivated the students during the course of 13 weeks, explaining the importance of attendance, ALEKS, mini review lessons and the other available resources at their disposal. The students enjoyed the warm environment and personal attention that the tutors provided.

Math Lab Syllabus

MAT098

Week 1	Orientation /ALEKS Pre -Assessment
Week 2	ALEKS Pre -Assessment
Week 3	Fractions – Names; Reducing; Adding and Subtracting
Week 4	Fractions – Multiplying and Dividing
Week 5	Decimals - Operations (Add, Subtract, Multiply and Divide); Decimals and Percents - Converting Fractions to Decimals to Percents
Week 6	Algebra – Operations with Signed Numbers
Week 7	Algebra Order of Operations –PEMDAS
Week 8	Real Numbers Linear Equations - (Adding, Subtracting, Multiplying and Dividing)
Week 9	Applied (Word) Problems
Week 10	Graphing Lines and Intercepts (X and Y-Intercepts)
Week 11	Slope – Intercept Form for Straight Line Equations
Week 12	ALEKS Post Assessment
Week 13	ALEKS Post Assessment

MAT099

Week 1	Orientation /ALEKS Pre -Assessment
Week 2	ALEKS Pre -Assessment
Week 3	Fractions – Names; Reducing; Adding and Subtracting
Week 4	Fractions – Multiplying and Dividing
Week 5	Decimals - Operations (Add, Subtract, Multiply and Divide); Decimals and Percents - Converting to Fractions
Week 6	Algebra – Operations with Signed Numbers
Week 7	Algebra Order of Operations –PEMDAS
Week 8	Factoring Quadratics: The Simple Case
Week 9	Rational Expressions: Simplifying (Multiplying and Dividing)
Week 10	Rational Expressions: Adding and Subtracting
Week 11	Radicals: Simplifying
Week 12	ALEKS Post Assessment
Week 13	ALEKS Post Assessment

Math Lab Logic Model

Following is the logic model of the Math Lab that depicts the resources, activities, participants, and the desired outcome of the Math Lab.

Math Lab Logic Model

Inputs	Outputs		Outcomes -- Impact		
	Activities	Participation	Short	Medium	Long
<p>What we invest:</p> <ul style="list-style-type: none"> University Faculty Staff Peer tutors Training Facilities Smartboard ALEKS Collaboration with Math Dept. Online Materials Ideas from other programs 	<p>What we do:</p> <ul style="list-style-type: none"> Tutoring Online tutor Program (ALEKS) Mini review lessons Individual professional and peer tutoring Counseling on study skills Referrals to other appropriate resources 	<p>Who we reach:</p> <ul style="list-style-type: none"> Students Students' Families Faculty Administrators 	<p>This semester's results:</p> <ul style="list-style-type: none"> Students believe they can succeed if they put in the effort Students pass course (B or better) Students advance to the next course Students to develop good study skills including note taking, text review, and class work review More students use one-on-one tutoring Students develop strategies for next term 	<p>Next semester/next year's results:</p> <ul style="list-style-type: none"> Students seek one on one tutoring early in the semester Outreach to students who miss sessions Feedback to professors Use good web technology and Smartboard Early focus on basic skills Reading and Math understanding of word problems 	<p>Results in 4/6 years and more:</p> <ul style="list-style-type: none"> Math Club Students able to contribute skills and comments Closer collaboration with other learning assistance centers. Build a positive reputation with LU faculty and administrators Develop capacity to assist students in higher level math classes. Students view Math lab as a resource and an opportunity Improved graduation rate, LU reputation, and improved retention rate
<p>Assumptions:</p> <p>Following best practices in our services will help students increase their skills.</p> <p>Increased student skills will improve retention and graduation rates.</p> <p>Increased graduation rates will help attract students and increase Lincoln's reputation.</p>			<p>External Factors:</p> <ul style="list-style-type: none"> Location Economy State and Federal funding Perception of LRC by Faculty, Administrations, and Students 		

Adapted from: University of Wisconsin-Extension (2003). *Enhancing program performance with logic models*. Retrieved from lmcourse@ces.uwex.edu

Mathematics 098

Average Course Grade and Lab Attendance

The average course grade for students attending five or fewer sessions was 1.4, and for six or more sessions was 1.8. The table below shows the average course grade per number of lab sessions attended. Please note that there are less than 30 students' grades in the categories.

Lab Attendance and Average Course Grade

No. Labs Attended	Avg. Course Grade	No. Students
4	0	1
5	2.7	1
6	1.3	1
7	2.7	3
8	1.7	1
10	3.0	2
11	2.2	2
12	2.7	1
13	2.0	2
14	0	0
15	0.5	1
16	2.0	1
17	1.3	3
19	2.2	2
20	1.8	3
21	0	1
22	0	1
23	2.8	3
24	1.0	1
26	2.0	1
27	2.3	1

MAT 098 Improvement from Pretest to Posttest

The following table shows the average percent improvement for MAT 098 students who attended six or more lab sessions.

MAT 098 Average Percent Improvement

MAT 098 Topic	Pretest	Posttest	Percent Improvement
Arithmetic	28%	62%	121%
Real Numbers and Variables	20%	50%	150%
Linear Equations and Inequalities	11%	30%	173%
Overall	16%	39%	144%

Mathematics 099

Average Course Grade and Lab Attendance

The average course grade for students attending five sessions or fewer was 1.0, and six or more sessions was 1.6. The table following shows the average course grade per number of sessions attended. Please note that the categories have less than 30 students' grades.

Lab Attendance and Average Course Grade

No. Labs Attended	Avg. Course Grade	No. Students
1	1.0	2
2	1.9	2
3	1.3	1
4	0.3	3
6	0.4	3
7	1.6	4
10	1.0	1
11	2.7	1
13	1.9	2
14	0.0	1
15	1.0	1
16	1.7	1
17	2.5	2
19	2.0	1
21	0.8	3
22	2.9	3
23	2.7	2

MAT 099 Improvement from Pretest to Posttest

The table below shows the percent improvement from pretest to posttest for those students who attended six or more lab sessions.

MAT 099 Average Percent Improvement

MAT 099 Topic	Pretest	Posttest	Percent Improvement
Arithmetic	49%	67%	37%
Real Numbers and Variables	86%	87%	1%
Linear Equations & Inequalities	3%	17%	467%
Functions, Lines, Systems of Equations	7%	13%	86%
Integer Exponents & Polynomials	3%	22%	633%
Rational Expressions & Proportions	3%	10%	233%
Overall	19%	31%	63%

Student Survey

Between March 28 and April 5, 2011, Math Lab participating students answered a survey about their satisfaction with the Math Lab.

Ninety-five percent (95%) of respondents agreed or strongly agreed that the math lab was helpful, and 84% agreed or strongly agreed that the online tutoring was helpful. Eighty-four percent (84%) of respondents agreed or strongly agreed that the mini review lessons were helpful, and 100% agreed or strongly agreed that the tutors were helpful.

Ninety-two percent (92%) of respondents agreed or strongly agreed that they benefited from the Math Lab, and 72% agreed or strongly agreed that they benefited from the online tutoring. Eighty-nine percent (89%) of the respondents agreed or strongly agreed that they benefited from the mini review lessons, and 100% agreed or strongly agreed that they benefited from help from the tutors. Ninety percent (90%) of respondents were satisfied or greatly satisfied with their experience in the Math Lab.

The final question invited open ended responses to the question: “How can we improve the Math Lab?” Five students made no recommendation for change: “N/A”, “It’s fine”, “Keep doing what you are doing”, “Lab is good how it is”, and “By continue coming and getting help”.

Six students asked for closer coordination with the class work: “Allow students to review what they have learned in class during one out of the two days students attend Math Lab.” “Group work and I want ALEKS to match the course work in class.” “Have the lessons correspond to what the professor is doing in class.”

“I feel like it is a little pointless since I am in Math 099 and none of these problems really dealt with what we are working on.” “I wish we did more things that consist of what we do in class. It was sort of like I had to try and reprogram my mind for lab and class because the problems were not the same.” “Instead of doing Aleks all the time, do review of homework or problems that we actually learn in class because Aleks is usually off topic about what I learned prior to coming into lab!”

Six students asked for specific changes: “Make it more interactive and have tutors less ‘in your face’.” “It would be nice if the labs were placed in Dickey Hall” “More tutors required.” “Make it one day a week or make it something we can do in our rooms without having to come to lab.” “Allow us to listen to our own music while in Math Lab.” “NO COMPUTERS”. Four students asked for more of the same: “The math lab can be improved by extending the time so that the student can complete more work.” “Clone my tutors. We need more people like them.” “More things to do.” “More mini lessons.”

Professor Survey

One professor had a suggestion of how to improve the Math Lab: “I think everyone gets overwhelmed with duties once the semester starts that there is not enough time to make ALEKS/Math Lab efficiently fit into class activities. This is a challenge that needs attention. Need more data analysis to answer this question: (Students benefited from ALEKS).”

Student Learning Outcomes

The Math Lab reviewed the student learning outcomes for spring 2011. The following table indicates the revised student learning outcomes and goals.

Student Learning Outcomes	Assessment Method	Findings	Modified Student Learning Outcomes	Action Plan
Students will increase their skills in the area of Arithmetic. MAT 098 students who attend six or more lab sessions will show an improvement of 35% in Arithmetic and MAT 099 students will show an improvement of 30%.	ALEKS	MAT 098 students showed an improvement of 121% in Arithmetic. MAT 099 students showed an improvement of 37% in Arithmetic.	Students will increase their skills in the area of Arithmetic. MAT 098 students who attend Six or more lab sessions will show an improvement of 125% in Arithmetic and MAT 099 students will show an improvement of 40%.	Students will continue to practice Arithmetic in the areas of Fractions, Decimals, Percentages, including Application problems.
Students will increase their skills in the area of Real Numbers. MAT 098 students who attend six or more lab sessions will show an improvement of 30% in Real Numbers and MAT 099 students will show an improvement of 25%.	ALEKS	MAT 098 students showed an improvement of 150% in Real Numbers. MAT 099 students showed an improvement of 1% in Real Numbers.	Students will increase their skills in the area of Real Numbers. MAT 098 students who attend six or more lab sessions will show an improvement of 155% in Real Numbers and MAT 099 students will show an improvement of 2%.	Students will continue to practice Real Numbers in areas of Integers (order of operations), Exponents, Geometry, with Application.
Students will increase their skills in the area of Linear Equations. MAT 098 students who attend six or more lab sessions will show an improvement of 35% in Linear Equations and MAT 099 students will show an improvement of 30%.	ALEKS	MAT 098 students showed an improvement of 173% in Linear Equations. MAT 099 students showed an improvement of 467% in Linear Equations.	Students will increase their skills in the area of Linear Equations. MAT 098 students who attend six or more lab sessions will show an improvement of 175% in Linear Equations and MAT 099 students will show an improvement of 470%.	Students will continue to practice solving Linear Equations in areas of Functions, Lines, and Systems of Equation.

Student Learning Outcomes	Assessment Method	Findings	Modified Student Learning Outcomes	Action Plan
<p>Students will increase their overall mathematics skills and their overall scores from the pretest to the posttest.</p> <p>MAT 098 students who attend six or more lab sessions will show an improvement of 45% in overall assessment and MAT 099 students will show an improvement of 40%.</p>	ALEKS	<p>MAT 098 students showed an improvement of 144% in Overall Assessment (from pretest to posttest).</p> <p>MAT 099 students showed an improvement of 63% in Overall assessment (from pretest to posttest).</p>	<p>Students will increase their overall mathematics skills and their overall scores from the pretest to the posttest. MAT 098 students who attend six or more lab sessions will show an improvement of 145% in overall assessment and MAT 099 students will show an improvement of 65%.</p>	<p>Work with students early enough in order to overcome their weaknesses and improve their strengths.</p>
<p>The number of students who complete their pie in ALEKS will increase. 25% of the MAT 098 students who attend six or more lab sessions will complete the entire ALEKS Pie and 25% of the MAT 099 students will complete the entire ALEKS Pie.</p>	ALEKS	<p>No student from MAT 098 or MAT 099 completed the entire ALEKS pie.</p>	<p>The number of students who complete their pie in ALEKS will increase. 20% of the MAT 098 students who attend six or more lab sessions will complete different sections of the ALEKS Pie and 20% of the MAT 099 students will complete the sections of the ALEKS Pie, including Arithmetic, Real Numbers, and, Linear Equations in support of professors' directives.</p>	<p>Monitor the students' time on task, on mastery of various sections.</p>

SWOT

Strengths: What is done well?	Weaknesses: What could be improved?
<p>Based upon student survey responses, the vast majority find the math lab online tutoring and individual tutoring to be of great value.</p> <p>Smaller lab sizes during spring 2011 helped to improve one-on-one guidance and support.</p> <p>ALEKS continues to enhance the software functions and features to improve its value. As math tutors get more confidence in utilizing Smart Board, new avenues to help improve students' outcome are emerging. An example is the interactive math vocabulary exercise.</p> <p>Skilled, certified and experienced tutors are knowledgeable in mathematics software, web resources and Microsoft Office.</p> <p>The tutors accept the students at varying math levels and work with them to advance their skills.</p> <p>Diverse tutors in terms of ethnicity, gender, background and age support different learning styles.</p> <p>Tutors work together in a collegial atmosphere and share knowledge</p> <p>The proximity of mathematics lab to the classes and professors fosters better interaction.</p> <p>Tutors positively reinforced the lab students' performance with recognition and coupon rewards.</p>	<p>Many students do not understand basic operations such as Adding, Subtracting, Dividing, & Multiplying.</p> <p>Some students feel that the math lab is thrust upon them, and therefore, are not "mentally prepared" to get maximum value out of the lab offerings.</p> <p>Sometimes when tutors are very busy we are not able to give each student optimal attention. According to the students' surveys, students require more attention than our resources can provide.</p> <p>Statistics and other higher-level Mathematics textbooks are needed for review in the Math lab during one-on-one tutoring.</p>

Opportunities: What opportunities are open?	Threats: What are the obstacles?
<p>We feel that a great opportunity exists in increasing the students' fundamental arithmetic skills by concentrating during the early part of the semester.</p> <p>An opportunity exists in the creation of a block schedule that allows for effective synchronization between learned topics in classes and labs.</p> <p>The CRLA training has provided math tutors the opportunity to implement best practices.</p> <p>Tutors continue to improve their mathematical knowledge in order to develop the students' understanding of mathematics.</p> <p>Establish a mechanism to advise the math professors when students in their class are not making required progress in math labs.</p> <p>Continue to build a strong relationship with the Math faculty.</p> <p>Provide Math Drill exercises at the beginning of lab period to improve their fundamental skills.</p> <p>Moving to Wright Hall will provide room for interactions with other tutors from LRC, thus nurturing a better professional environment.</p> <p>Use of interactive Smart Board applications to engage students' attention can result in active learning, scaffolding and better understanding of subject matter.</p> <p>Explore online software tools to assist students taking higher level courses.</p>	<p>Lack of continued funding for state of the art online tutoring tool is always a threat, particularly in view of State budget cuts.</p> <p>Hiring of competent (and temperamentally suitable) math tutors is always a challenge at present wage level.</p> <p>It continues to be a challenge with students who tend to give up quickly discouraging other students.</p> <p>Potential challenge in maintaining relationships with professors and students after relocating to Wright Hall, from a physical proximity standpoint.</p>

Action Plan

Improvement	Based on this Evidence
Feedback to students following Pretest, to help the student identify their strengths and weaknesses, and propose a course of action based on these results and some of the students ideas. In addition, proactively monitor and guide students who do not seek help.	<p>Pre & Post Diagnostic test from ALEKS program.</p> <p>Brophy (1988) found that increased time on task improved students' skills.</p> <p>Cant and Cooper (2010) found that practice increased nursing students' skills.</p>
Help students develop improvement in Math Vocabulary in all the sections.	<p>Boylan's <i>What Works: Research-based Best practices in Developmental Education (2002) & The Center for Student Success (2007)</i>: Improve Math Vocabulary Post test average in the Arithmetic, Real Numbers, and Linear Equations in Math 098 & Math 099.</p>
ALEKS Diagnostic test and program which shows where students are and what they will need, and provide total Math package including reports.	<p>Boylan's <i>What Works: Research-based Best practices in Developmental Education (2002) & The Center for Student Success (2007)</i>: Individual student diagnostic reports.</p>
Use Smart-Board to conduct mini-lessons that support class work.	<p>Boylan's <i>What Works: Research-based Best practices in Developmental Education (2002) & The Center for Student Success (2007)</i>. Student Survey</p>
Communicate clearly during the orientation week that Aleks advances according to one's individual pace while mini-lessons are more in alignment with the class topics.	Student Survey
Put up posters in the lab to inform students that one-on-one tutoring is available in Dickey Hall throughout the week.	Student survey

Act 101 Achievement Program

The Honorable K. Leroy Irvis, the first Black Speaker of the House for the Commonwealth of Pennsylvania as well as in the country, created a legislative Act number 101 known as the “Higher Education Equal Opportunity Act.” The programs created as a result of this legislation are called Act 101 programs.

Program benefits include:

- Preferential scheduling of Tutoring Appointments
- Advocacy
- Letters of Recommendation
- Chi Alpha Epsilon Honor Society

The goals and objectives of the Act 101 Achievement Program are:

Goal 1:

To help students resolve life issues that can interrupt successful academic progress.

Objectives:

- Provide a minimum of one counseling/assessment appointment throughout the semester to identify and address issues
- Provide workshops that address common problems on a college campus
- Provide Intrusive Advising

Goal 2:

Students will have a GPA of 3.3 and above.

Objectives:

- Provide tutoring in Reading, Writing, and Mathematics
- Make referrals for tutoring in Academic Departments
- Periodic Academic Monitoring throughout the semester

Intrusive Developmental Advising and Counseling

To meet the program goals, each semester the students are required to attend counseling sessions, student development workshops, and complete study hours. The counseling sessions include: the Semester Planning Session, the Early Monitoring Session, the Mid-term Review session, and the End of Semester Planning Session. The counseling sessions are required because research has shown that contact with a significant person at the institution is a major factor in a student’s decision to stay in college (Heisser, 2002; Chickering & Gamson, 1987; Glennen, Farren & Vowell, 1996). According to Tinto (1993), there are three stages that students move through as they matriculate through college: separation, transition, and incorporation. Separation begins with leaving home and living on the college campus. Transition involves adjusting to a new environment where they may not feel that they belong. The incorporation stage is complete when a student feels that he or she is a part of the social and academic community.

The Semester Planning session occurs during the first two weeks of school. This session is designed to provide an outline for the current semester. The counselor and the student take the

time to look at the student's class schedule and develop a study schedule. This session also allows the student to identify specific needs and discuss any possible future obstacles that might impede academic progress. The deliberate contact is used to show care and concern for the student and his or her academic success which research shows is paramount (Heisser, 2002; Chickering & Gamson, 1987; Glennen, Farren & Vowell, 1996, Tinto, 1994).

Crookston (1972) created the term Developmental Advising, which allows for the student to increase his or her independence through the improvement of decision making and problem solving skills (Heisserer & Pparette, 2002). Earl (1988) defines intrusive advising as getting to the heart of what is causing trouble for the student and forming a plan of action. This requires intentional contact with the student to create a working relationship between the counselor and the student.

The Mid-term Review Session is used to review Mid-term grades. Mid-Semester Early Monitoring forms were distributed to the faculty working with our assigned students. Those students having difficulty were contacted and counseling appointments were scheduled to help the students develop an action plan to improve their grades.

STARS Program

The STARS program is an intensive academic coaching program. The students were also encouraged to attend the Student Developmental Workshops, and come to study hall with professional tutors.

Financial Literacy

A Financial Literacy component was introduced this fall. The program was developed by Operation HOPE, www.bankingonourfuture.org "A Course on Dignity" which serves as an "Introduction to the Financial Literacy Modules" was presented.

Act 101 Logic Model

Following is the Act 101 logic model, including inputs (resources), outputs (activities and participants), and desired outcomes (short, medium, and long term).

Act 101 Logic Model

Inputs	Outputs		Outcomes -- Impact		
	Activities	Participation	Short	Medium	Long
<p>What we invest:</p> <p>Act 101 funds</p> <p>Staff</p> <p>AmeriCorps Community fellows (7)</p> <p>Computers</p> <p>Room and Office</p> <p>Collaboration with academic departments, faculty, and administrators</p>	<p>What we do:</p> <p>Intrusive academic counseling one on one</p> <p>Small group meetings</p> <p>Development workshops</p> <p>Mentoring/ tutoring</p> <p>Personal counseling</p> <p>Referrals</p> <p>Reinforce participation in tutoring</p>	<p>Who we reach:</p> <p>Students</p> <p>Students' Families</p> <p>Faculty</p> <p>Administrators</p> <p>Alumni</p>	<p>This semester's results:</p> <p>Students learn how to cope in college</p> <p>Students learn life skills</p> <p>Students earn a B or better in courses</p> <p>Students develop good peer relationships and social interaction on campus</p>	<p>Next semester/next year's results:</p> <p>Students become more successful emotionally and academically on campus</p> <p>Students improve their GPA</p> <p>Students remain at Lincoln-improve retention rate</p>	<p>Results in 4/6 years and more:</p> <p>Students complete their academic program and graduate-receive scholarships for graduate school (PA resident) and corporate employment</p> <p>Lincoln's graduation rate improves</p> <p>Lincoln's image is improved in the community at large</p>
<p>Assumptions:</p> <p>Students' skills are enhanced by resources</p> <p>Students will use the support of counseling and work on issues</p> <p>Lincoln's image is improved by improved graduation rates</p>			<p>External Factors:</p> <p>Location:</p> <ul style="list-style-type: none"> New building No public transportation <p>Economy: State and federal funding</p>		

Adapted from:
 University of Wisconsin-Extension (2003). *Enhancing program performance with logic models*. Retrieved from lmcourse@ces.uwex.edu.

Student Survey

Sixty-seven percent (67%) of the 15 respondents indicated that the Act 101 program was most helpful and 33% indicated that it was somewhat helpful. Fifty-three percent (53%) of respondents indicated that the Act 101 program helped them improve their grades and 47% indicated it was somewhat helpful. Sixty-four percent (64%) of respondents found attending one advising/counseling session most helpful, and 36% found it somewhat helpful. Fifty-eight percent (58%) found the book group most helpful while 17% found it somewhat helpful. One hundred percent (100%) of respondents found that meeting with the counselor and mentors helped them stay in school, and 100% found it also helped them improve their grades.

SWOT

A SWOT analysis was conducted by the ACT 101 staff and an action plan was developed to improve services. Based on the SWOT analysis, the following improvements are planned: a meet and greet event for ACT 101 students, staff and faculty, an ACT 101 newsletter for students, a mentor program, an academic coaching program and manual, and an intensive program that includes study skills and personal development (STARS).

SWOT

<p>Strengths: What is done well?</p> <p>ACT 101 Meetings were held regularly.</p> <p>The AmeriCorps Community Fellows assisted with student outreach.</p> <p>Several students met regularly with the Counselor/Coach regarding personal and academic issues.</p>	<p>Weaknesses: What could be improved?</p> <p>Student participation at scheduled activities was poorer this semester.</p> <p>The literary group included approximately seven – ten students, but attendance was not consistent.</p>
<p>Opportunities: What opportunities are open?</p> <p>Continue the Literary Group in the fall with a new selection. Target a specific group of students who will commit to the timeframe.</p> <p>Focus on careers-plan a program in collaboration with Career Services Director.</p> <p>Communicate more with professors regarding student academic progress.</p>	<p>Threats: What are the obstacles?</p> <p>Potential loss of funding for the position and program.</p> <p>Students haven't prioritized their activities.</p> <p>Lack of resources for prizes, gifts, or refreshments.</p>

Action Plan

Improvement	Based on this Evidence
<p>Schedule STARS Learning Styles session early in semester.</p> <p>Continue Literary Group</p> <p>Chi Alpha Epsilon Honor Society to recognize the Academic success of ACT 101 students</p> <p>Meet individually with all students below a 2.0 GPA</p> <p>Participate in campus-wide Financial Literacy Program in collaboration with Student Support Office.</p>	<p>According to Tinto (1993) there are three stages that students move through as they matriculate through college: separation, transition, and incorporation. Separation begins with leaving home and living on the college campus.</p> <p>Transition involves adjusting to a new environment which students may or may not feel a part. The incorporation stage is complete when a student feels that he or she is a part of the social and academic communities. This event will assist with the creation of a sense of belonging to a group, thus likely increase retention. The deliberate contact made by staff is used to show care and concern for the student and his or her academic success which research shows is paramount (Heisser, 2002; Chickering & Gamson, 1987; Glennen, Farren & Vowell, 1996, Tinto, 1994).</p>

Peer Tutoring

The LRC hosted peer tutoring for all students Sundays, Mondays, Tuesdays, Wednesdays, and Thursdays from 5:00 pm to 11:00 pm in 222 Dickey Hall. A table showing the number of sessions per course is located in the “Attendance Summary” section.

Student Survey

Twenty-one students responded to the peer tutoring survey. Eighty-one percent (81%) of respondents found peer tutoring most helpful and 19% indicated peer tutoring was somewhat helpful, for a total of 100% of students found peer tutoring helpful. Seventy (70%) responded that that peer tutoring helped improved their grade, and 25% indicated peer tutoring was somewhat helpful in improving their grade. Five percent (5%-one respondent) felt that peer tutoring did not help her/him improve his/her grade. Fifty-two percent (52%) of respondents were greatly satisfied with their peer tutoring experience, and 48% were satisfied.

Fifteen respondents entered comments: Seven indicated that peer tutoring did not need any improvements, three wanted food available, and three recommended more tutors be available for more subjects. One respondent would like the time period for peer tutoring expanded, and one respondent wanted more tutors that knew the subject matter and how to solve problems. Some responses included: “GREAT!”, “Keep the tutors you have😊!”, and “I had a great experience with peer tutoring. It helped me to understand the material and kept me at a “B” average instead of the usual “C” I manage to pull in Math Classes 😊.”

References

- ACT, Inc. (2007). *Issues in college success: The role of nonacademic factors in college readiness and success*. Retrieved on December 20, 2008 from: http://www.act.org/research/policymakers/pdf/nonacademic_factors.pdf
- ALEKS Corporation (2008). *Research behind ALEKS*. Retrieved on December 12, 2008 from: http://www.aleks.com/about_aleks/research_behind.
- Bloom, B. (1984). The 2-Sigma problem: The search for methods of group instruction as effective as one-on-one tutoring. *Education Researcher*, 13(6), 4-16.
- Boylan, H. (2002). *What works: Research-based best practices in developmental education*. Boone, NC: Continuous Quality Improvement Network/National Center for Developmental Education.
- Boylan, H., Bliss, L., and Bonham, B. (1997). Program components and their relationship to student performance. *Journal of Developmental Education*, 20(3).
- Brophy, L. (1988). Educating teachers about managing classrooms and students. *Teaching and Teacher Education*, 4(1), 3.
- Cant, R.P. and Cooper, S.J. (2010). Simulation-based learning in nursing education: Systematic review. *Journal of Advanced Nursing*, 66(1), 3-15.
- Center for Student Success (2007). *Basic skills as a foundation for student Success in California community colleges*. California: The Research and Planning Group for California Community Colleges.
- Cornett-Devito, M. & Reeves, K. (1999). Preparing students for success in a multicultural world: Faculty advisement and intercultural communications. *NACADA Journal*, 19(1), 35-44.
- Crookston, B.B. (1972). A developmental view of academic advising as teaching. *Journal of College Student Personnel*, 12-17.
- Earl, W.R. (1988). Intrusive advising of freshman in academic difficulty. *NACADA Journal*, 8, 27-33.
- Glennen, R. E., Farren, P. J., & Vowell, F. N.(1996). How advising and retention of students improves fiscal stability. *NACADA Journal*, 16, 38-41.

- Gordon, E. E., Morgan, R. R., O'Malley, C. J. and Ponticell, J. (2006). *The Tutoring revolution: Applying research for best practices, policy implications, and student achievement*. Rowman & Littlefield Education.
- Hagedorn, L., Maxwell, W., Rodriguez, P., Hocevar, D., and Fillpot, J. (2000). Peer and student-faculty relations in community colleges. *Community College Journal of Research and Practice*, 24(7), 587-598.
- Heisserer, Dana L., & Phil Parette (2002) Advising At-Risk Students in College and University Settings. *College Student Journal* 36(1), 69.
- Hodges, R. and White, W. (2001). Encouraging high-risk student participation in tutoring and Supplemental Instruction. *Journal of Developmental Education*, 24(3), 2-11.
- Keiss, H.O. (2002). *Statistical concepts for the behavioral sciences* (3rd ed). Allyn & Bacon: Boston, MA.
- Kellogg, W.K. (2004). *Logic Model development Guide*. W.K. Kellogg Foundation: Battle Creek, Michigan.
- Langan, J. (2003). *Ten Steps to Improving College Reading Skills*. NJ: Townsend Press.
- Lotkowksi, V.A., Robbins, S.A., & North, R.J. (2004). *The role of academic and non-academic factors in improving college retention, ACT policy report*. Iowa City, Iowa: ACT, Inc.
- Maddox, T. (2005). Pursuing persistence: What variables make a difference? *Research in Developmental Education*, 19(3), 1-5.
- My Reading Lab (2008). *What is My Reading Lab?* Retrieved on December 10, 2008 from: <http://www.myreadinglab.com/whatis.html>.
- Norflett, S. and Kristsonis, W. A. (2006). School factors that influence closing the academic achievement gap for African American students. *Doctoral Forum: national Journal for Publishing and Mentoring Doctoral Student Research*. 3(1). Retrieved on December 20, 2008 from: <http://www.nationalforum.com/Electronic%20Journal%20Volumes/Norfleet,%20Steven%20School%20Factors%20That%20Influence%20Closong%20The%20Academic%20Achievement%20Gap.pdf>.
- Rheinheimer, D. C., Grace-Odeleye, B., Francois, G.E., & Kusorgbor, C. (2010). Tutoring: A support strategy for at-risk students. *Learnign Assistance Review*, 15(1), 23-34.
- Rheinheimer, D. C. & Mann, A. (Win 2000). Gender matching floor Effects and other tutoring outcomes. *Journal of Developmental Education*, 24(2), 10-28.

- Saadawi, G., Azevedo, R., Castine, M., Payme, V. Medvedeva, O. Tseytlin, E., Legowski, E., Jukic, D., and Crowley, R. (2010). Factors affecting feeling-of-knowing in a medical intelligent tutoring system: The role of immediate feedback as a metacognitive scaffold. *Advances in Health Science Education, 15*, 9-30.
- Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition* (2nd ed). Chicago: University Press.
- Tinto, V. (1994). Taking retention seriously: Rethinking the first year of college. *NACADA Journal, 19*(2), 5-9.
- Tinto, V. (1999). Taking retention seriously: Rethinking the first year of college. *NACADA Journal, 19*(2), 5-9.
- Tinto., V., and Russo, P. (1994). Coordinated studies programs: Their effect on student involvement at a community college. *Community College Review, 22*(2), 16-25.
- University of Wisconsin-Extension (2003). *Enhancing program performance with logic models*. Retrieved on November 2, 2010 from lmcourse@ces.uwex.edu.