



UNC CHARLOTTE

J. Murrey Atkins Library

9201 University City Boulevard, Charlotte, NC 28223-0001
t/ 704.687.3601 f/ 704.687.3050 library.uncc.edu

October 25, 2010

Dear SOTL Grant Selection Committee:

I fully support this proposal for a project to develop a reusable online tutorial within Moodle to educate students about plagiarism and academic integrity.

The project will allow the library to achieve key goals, including supporting research and curricular needs, providing services to increase the success of our community, and designing systems that support the discovery and use of scholarship. Because we view this project as a pilot and potential model for additional online tutorials relating to academic integrity, we believe it will have benefits beyond the project term.

It is with optimism and enthusiasm that I endorse this project.

Sincerely,

Stanley Wilder
University Librarian



Scholarship of Teaching and Learning Grant Proposal

Online Tutorial to Strengthen Research Skills

Lisa Nickel, Access and Outreach Services & Distance Education, Atkins Library
Heather McCullough, Research Services, Atkins Library
Somaly Kim Wu, Research Services, Atkins Library
Donna Lanclos, Library Administration, Atkins Library

October 29, 2010

Abstract

The purpose of this project is to create a reusable learning object in Moodle to teach students about plagiarism, how to identify and avoid it, and to test their understanding of plagiarism at the end of the module. The resource will be developed within Moodle and available to any UNC Charlotte instructor to add to his or her course. The learning object will be comprised of a video- and multi-media tutorial that leads students through a series of issues related to understanding, identifying, and avoiding plagiarism. We will develop a lesson plan and guide for instructors who wish to add the module to their course.

Understanding and avoiding plagiarism is essential to conducting research. This project addresses the need to help students build strong research skills and to use and attribute traditional and online research materials appropriately. The module itself will provide **prompt feedback** to the students and **communicate high expectations** for sound research practices. The module will allow for **increased faculty-student interaction** by providing instructors guidance in the area of plagiarism. Additionally, the project addresses University Goal #5, to **assist faculty to deliver effective instruction**, and University Goal #8, to **develop students' fundamental skills of inquiry in writing, [...and...] information literacy**. This project will help the Library meet its organization goals as well, including Goal #1, **supporting research and curricular needs**, Goal #2, **providing services to increase success** of our community, and Goal #3, to **design, test, and improve systems that support the discovery and use of scholarship**.

Project Narrative

A. Specific Aims

1. Overall purpose

The overall purpose of the project is to improve students' research skills as they relate to identifying and avoiding plagiarism and to provide instructors a teaching tool for that purpose.

The project will result in the creation of a reusable learning object in Moodle to teach students about plagiarism, how to identify and avoid it, and to test their understanding of plagiarism at the end of the module. The resource will be developed within Moodle so that any UNC Charlotte instructor can add it to his or her course. Student learning will be accomplished through a video- and multi-media tutorial that leads students through a series of issues related to understanding, identifying, and avoiding plagiarism. A lesson plan and instructor guide to the resource will be developed to provide guidance and help to instructors who wish to add a plagiarism component to their course.

This project has a research dimension as well as the practical goal of developing a teaching resource. The project team includes Dr. Donna Lanclos, Library Anthropologist who will lead usability testing for the module using methods she has already established for web-usability testing. The team will also work with the Center for Teaching and Learning, to assess the effectiveness of this teaching resource in raising students' understanding of plagiarism. We will present our work at UNC Charlotte venues including appropriate Center for Teaching and Learning events and we will sponsor a library brown-bag to present the project. Conference presentations are planned for the Association of College and Research Libraries (ACRL) annual conference in 2011 and the Southeast Educause conference in 2011. We fully expect to publish

our findings one or more journals such as the *Educause Review* or the *ACRL College & Research Libraries News*.

This project directly addresses important priorities of the University and the Library. It addresses **University Goal #5**, to provide support for faculty and staff development by assisting faculty members in the delivery of effective instruction to a diverse student body and by enhancing faculty effectiveness through assistance with the integration of information technology into instruction, research and creative efforts and **University Goal #8**, to graduate students with the breadth and depth of knowledge and the intellectual and professional skills that prepare them for a productive life in an ever-changing world by developing their fundamental skills of inquiry in writing, [...and...] information literacy. This project will help the Library meet several of its organization goals as well, including **Library Goal #1**, supporting research and curricular needs, **Library Goal #2**, providing services to increase success of our community, and **Library Goal #3**, to design, test, and improve systems that support the discovery and use of scholarship.

This project addresses the UNC Board of Governors' (BOG) 2004-2009 Long Range Plan (the most recent planning document available for the UNC system) for Information Technology for Student Learning, Research, and Administrative Efficiency. We concur with the BOG planning document statements that "learners today are much more 'visual' and 'experiential'" and that to be successful, "one must adapt and adopt newer techniques and technologies."

Because this resource is fully web-based and can be completed by students asynchronously, classes delivered in any format (fully face-to-face, blended, and fully online) will be able to use it. As the university aims to develop its online offerings, having an online self-paced and automatically graded learning module will facilitate instructors' efforts to move

their classes partially or fully online while maintaining sound instruction about research issues and methods. We view this project as a pilot for the library as it aims to increase its support for online research instruction. Future library tutorials could include discipline- or audience-specific (undergraduate, graduate, faculty, and international student) research skills tutorials and self-assessments.

2. Specific objectives

The specific objectives to be achieved during the course of this project include:

- 1) Create a Moodle-based tutorial, including scored activities and a final quiz, on the topic of plagiarism;
- 2) Create a lesson plan and an instructor guide for using the tutorial;
- 3) Assess the usability (i.e., effectiveness of the web design and presentation) of the tutorial;
- 4) Assess the effectiveness of the tutorial in improving students' understanding of plagiarism;
- 5) Disseminate information about the project and our findings at UNC Charlotte via Center for Teaching and Learning events, library events, and at regional and national conferences;
- 6) Disseminate information about the project and our findings via published articles in the *Educause Review* and/or the *ACRL College & Research Libraries News*, or other similar publications.

3. The rationale (putting the project in context)

a. The problem to be addressed

The project will address the problem of students' lack of awareness about plagiarism and how to cite resources appropriately in their research. It will also provide a solution to the challenge that instructors may face in terms of finding time and available materials to teach basic research skills to their students and to assess their understanding of those skills.

b. The relation of the project to the unit's mission, objectives, and priorities

The library's central mission is to support the teaching and research goals of the university. It plays a vital role in educating students and faculty how to locate and use research resources efficiently, effectively, and responsibly, and librarians have a long history of educating library users on these topics. The development of this fully online and reusable learning object falls squarely in the library's strategic planning program to build customized web-based resources to meet the changing needs of the 21st-century higher education learning environment.

c. Prior planning, pilot work, and observations that support the project

The topic of plagiarism and academic integrity is not new to library instruction. Librarians already have standardized lesson plans to address plagiarism; however the delivery format is new. Lisa Nickel, Associate Professor and Distance Education Librarian, is experienced in supporting research and learning in a fully online environment. Dr. Heather McCullough, Professor and Head of Research Services, is currently enrolled in the Center for Teaching and Learning's Developing Your Course for Online Delivery workshop and has previous experience designing hybrid and online instruction in foreign languages.

Somaly Kim Wu, Assistant Professor and Web Services Librarian, has extensive experience in usability testing, and builds and manages web-based instructional tools for the library. Dr. Donna Lanclos, Library Anthropologist, conducts and facilitates qualitative research

projects in the Atkins library, and is also part of the team conducting usability research on the library's web presence.

d. The impact of the study on undergraduate or graduate teaching and learning (e.g., the benefits to student learning and success, the number of students to be served, etc.)

The module will be made available to any instructor who wishes to use it. We anticipate recruiting up to five instructors in the first session of Summer School 2010 to test. We estimate that 100 – 150 students will be involved in the initial test. We plan to recruit five to ten new instructors, approximately 175 – 200 students, in the Fall 2010 to use the module and to provide feedback and data for our research study. Based on our informal conversations with faculty members in various departments who all indicated a keen interest in having a plagiarism teaching tool, we do not anticipate problems recruiting classes to use the module in the summer or fall of 2010. Once the module has been tested and modified as necessary after the Fall 2010 semester, we will make it available to any instructor at UNC Charlotte who wishes to add it to their class.

B. Literature Review

The role of web-based, customized tutorials have been shown in recent research to have positive effects in increasing students' understanding of academic integrity and resulting in modified student behavior to avoid plagiarizing. For example, Dee and Jacob found that having students complete a "random assignment to the web tutorial reduced instances of plagiarism by roughly 2 percentage points overall (i.e., a two-thirds reduction) and that this treatment effect was concentrated among students with lower SAT scores". We will not be studying how this tutorial could potentially affect retention but the Dee and Jacob study seems to indicate this is a possibility. Citing numerous additional studies, Ercegovic states that the problem of academic dishonesty "The problem appears to be on the rise in scholarly communities, among scientific communities, and among politicians and journalists" (306). Jackson discusses an online

plagiarism tutorial that resulted in a 6 % improvement in students' understanding of plagiarism based on comparison of pre- and post-test scores. Research such as Huff's on the design of assessments for library instruction will also inform this project.

Works Cited

Buranen, Lise and Alice M. Roy, eds. *Perspectives on Plagiarism and Intellectual Property in a Postmodern World*. Albany, N.Y.: State Univ. of New York Pr., 1999.

Dee, Thomas and Brian Jacob. "Rational Ignorance in Education: A Field Experiment in Student Plagiarism." *National Bureau of Economic Research: Working Paper Series*, January 2010. URL: <http://www.nber.org/papers/w15672>

Ercegovac, Zorana and John V. Richardson Jr. "Academic Dishonesty, Plagiarism Included, in the Digital Age: A Literature Review." *College & Research Libraries* 65.4 (2004): 301-318. URL: <http://crl.acrl.org/content/65/4/301.full.pdf>

Hufford, Jon R. "What Are They Learning? Pre- and Post-Assessment Surveys for LIBR 1100, Introduction to Library Research." *College & Research Libraries* 71.2 (2010) 139-158. URL: <http://crl.acrl.org/content/71/2/139.full.pdf>

Jackson, Pamela A. "Plagiarism Instruction Online: Assessing Undergraduate Students' Ability to Avoid Plagiarism." *College & Research Libraries* 67.5 (2006): 418-428. URL: <http://crl.acrl.org/content/67/5/418.full.pdf>

C. Methods

Considerable time has already been devoted to planning the plagiarism modules for the Moodle block. An initial outline of the project has been developed and is included in this proposal. Before finalizing the building of the modules, we plan to do a short survey of faculty to determine their specific concerns about students' knowledge and incidences of plagiarism so that we can better design activities to target those areas.

We are requesting funding to purchase Adobe Captivate software as it will allow us to create streaming tutorials with sound and video that incorporate scored activities and quizzes. This software is SCORM (Shareable Content Object Reference Model) compliant, meaning that the grades can easily be incorporated into the Moodle grade book in each class. Additionally, the software provides the option to publish Adobe Captivate projects as handouts, lessons and step-by-step guides in Microsoft Word format which will be useful to provide instruction to target different learning styles. We will also work with the Office of Disability Services to ensure that the tutorial and related material is ADA compliant. Upon completion, we will conduct usability testing of the modules and adjust them as needed.

D. Evaluation

Several evaluation methods will be used on this project:

1. Scored activities and a post-tutorial test scores will be compared to determine areas of concern;
2. Faculty evaluations in the form of questionnaires will be used to assess the tutorial and the perceived difference the tutorial might have made in students' performance;
3. Faculty evaluations of the lesson plan and instructor guide for using the tutorial will be given to determine if changes are needed;
4. Student feedback will be collected (in addition to their quiz results) to assess the format and delivery of the tutorials as well as the content and lingering questions;
5. Usability tests designed to determine the effectiveness and usability of the online materials will be developed and administered by Dr. Donna Lanclos using Morae software, note-taking, and interviews with participants. We anticipate that this evaluation stage will require incentives to attract participants;

6. We will also track the number of courses that adopt this learning module and the number of students who complete it.

E. Knowledge Dissemination

Results from the project will be shared with the UNCC and the broader academic community at university, regional, and national conferences. Currently there is very little published about incorporating library research skills into Moodle and we feel that our experiences will be valuable to the state and national library communities. The project timeline indicates the conferences where we will disseminate the project outcomes. Results will also be submitted for publication in one or more journals such as *Educause Review* or *ACRL College & Research Libraries News*.

F. Human Subjects

Each of the project team members has passed the IRB tutorial and has participated in IRB-approved projects, including web usability projects. We will apply for a waiver of consent for our faculty survey. We do not anticipate that collecting and comparing results of scored assignments and post-tutorial tests will require IRB approval. We do anticipate that our web usability testing will require IRB approval and we will ensure that it is approved and that we obtain consent forms from each participant before beginning testing.

G. Extramural Funding

The library has already purchased and installed usability software and hardware (Morae web usability software) in its Usability Lab. Each of the project team members also receives some travel funds for professional development. This year the travel funding we receive is less than in previous years.

H. Project Timeline

Spring 2011

1. Write lesson (content) and pre- and post-tutorial quizzes for the plagiarism tutorial
2. Build tutorial in Moodle project site
3. Consult with Center for Teaching and Learning on methods for sharing a learning object within Moodle
4. Write lesson plan and instructor guide for instructors who wish to use tutorial
5. Finalize usability testing parameters based on final design of tutorial
6. Develop and finalize questionnaires that will be used to gather student and instructor feedback about the quality and helpfulness of the tutorial
7. Recruit testers from the library staff and undergraduate student library assistants to take the tutorial to test for technical issues only
8. Recruit instructors in 5 courses to use the tutorial in Summer Session I and provide feedback on it and on the lesson plan and instructor guide
9. Project lead presents project plans and overview at ACRL Annual Conference, March 2011, Philadelphia, PA

Summer Session I, 2011

1. Instructors in 5 courses use tutorial and share student results of pre- and post-tutorial tests and student and instructor feedback
2. Usability testing will take place using students recruited from the 5 courses
3. Project team presents project at Southeast Educause, June 2011, Charlotte, NC

Summer Session II, 2011

1. Analyze results of usability testing, analyze results of the pre- and post-test, and analyze student and faculty questionnaires

2. Modify the tutorial as necessary to respond to major issues identified in the various assessments
3. Recruit testers from the library staff and undergraduate student library assistants to take the tutorial to test for technical issues only
4. Recruit instructors in 5 to 10 courses to use the tutorial in Fall 2011 and provide feedback on it and on the lesson plan and instructor guide

Fall 2011

1. Instructors in 5 – 10 courses use tutorial and share student results of pre- and post-tutorial tests and student and instructor feedback
2. Usability testing will take place using students recruited from the 5 courses
3. Dissemination
 - a. Library Showcase and/or CTL Showcase
 - b. Proposal written for Educause Review and/or *ACRL College & Research Libraries News*.
 - c. Publicize tutorials availability to UNC Charlotte instructors via university channels (CTL, Library, Academic Affairs)

Budget Request for SOTL Grant Year 2011

Joint Proposal? Yes No

Title of Project Strengthening Students' Online Scholarship Skills: Creating a Reusable Learning Object within Moodle to Teach Students about Plagiarism

Duration of Project 3 semesters

Primary Investigator(s) Lisa Nickel, Distance Education Librarian

Email Address(es) lnickel@uncc.edu

UNC Charlotte SOTL Grants Previously Received (please names of project, PIs, and dates)

Allocate operating budget to Department of Atkins/Collections Access & Outreach Services

Account #	Award	Year One January to June
Faculty Stipend	Transferred directly from Academic Affairs to Grantee on May 15	\$ -
911250	Graduate Student Salaries	
911300	Special Pay (Faculty on UNCC payroll other than Grantee)	
915000	Student Temporary Wages	
915900	Non-student Temporary Wages	
920000	Honorarium (Individual(s) not with UNCC)	
921150	Participant Stipends	\$200
925000	Travel - Domestic	\$2686
926000	Travel - Foreign	
928000	Communication and/or Printing	
930000	Supplies	
942000	Computing Equipment	\$900
944000	Educational Equipment	
951000	Other Current Services	
GRAND TOTAL		\$ 3786

Attachments:

1. Attach/provide a narrative that explains how the funds requested will be used.

2. Has funding for the project been requested from other sources? ___ Yes X No. If yes, list sources.

BUDGET JUSTIFICATION

YEAR ONE

Year One Participant Stipends

TOTAL **\$200**

Incentive rewards for students usability participants \$200

Explanation: The usability test will require students to spend approximately 45 minutes to one hour working through the web tutorial while answering detailed questionnaires about the experience. Our goal is to have 20 students give feedback during the usability testing, 10 students during the summer's initial roll-out of the tutorial and 10 students in fall. Industry standards for initial usability suggest that 10-15 people in a usability study are sufficient because the repeatability of errors tends to stand out after 10-15 people undergo testing. The library has successfully used \$10 Starbucks gift cards in previous semesters to encourage students to undertake the testing. We will use \$10 Starbuck gift cards for incentives for our summer and fall usability testing.

Year One Travel

TOTAL **\$2686**

Explanation: Currently there is very little published about incorporating library research skills into Moodle and therefore this project will be of interest to state and national library communities as well as those in the instructional technology field. Conference participation will be essential to the dissemination of our work and will allow us to receive feedback from colleagues around the country and regionally. Nickel, the project leader, will present her work and the project at the national conference, Association of Colleges and Research Libraries (ACRL) in Philadelphia in March 2011. The team members developing the tutorial (Nickel, McCullough, and Kim Wu) will present their work at the regional Southeast Educause Conference to be held in Charlotte in June 2011.

- ACRL Conference Participation for Lisa Nickel, Philadelphia, PA, March 30-April 2, 2011 **\$1381**
 - Registration, \$445
 - Airfare, \$322
 - Hotel, \$614 (\$189 per night x 3 nights = \$567 x 8.25 tax = \$614)
- Southeast Education Conference Participation for Lisa Nickel, Heather McCullough, and Somaly Kim Wu, Charlotte, NC, June 2011 **\$1305**
 - Registration, \$435 (based on 2010 rates, 2011 rates not yet available) x 3 = \$1305

Year One Computing Equipment

TOTAL **\$900**

E-learning Authoring Tool (3 licenses of Adobe Captivate v. 5) **\$900**

Explanation: The project team will use Adobe Captivate to create the tutorials. Adobe Captivate v. 5 is SCORM (Shareable Content Object Reference Model) compliant, meaning that the grades can easily be incorporated into the Moodle grade book in each class. Additionally, the software provides the option to publish Adobe Captivate projects as handouts, lessons and step-by-step guides in Microsoft Word format which will be useful to provide instruction to target different learning styles. The university does not have the most recent version of this software, which is needed, and three of the project team members will be working on the project concurrently.

- (2) copies- - [Adobe Captivate 5](#) (Win) Product ID: 1429719 / Mfg Part #: 65075929, \$298.95
- (1) copy [Adobe Captivate 5](#) (Mac), Product ID: 1429721 / Mfg Part #: 65075930, \$298.95
- Vendor: <http://www.academicssuperstore.com/products/Adobe/Captivate>

GRAND TOTAL **\$3,786**