

Multi Discipline Collaboration in the Teaching of Inquiry and Critical Thinking

Consuelo Carr Salas (Co-Principal Investigator)  
Assistant Professor, University Writing Program and Department of English

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Assistant Professor, Humanities Librarian, J. Murrey Atkins Library

**Abstract**

The goal of this study is to assess the impact of faculty and librarian collaborative curriculum on student learning of the inquiry process. The researchers' curriculum is specifically focused on providing students with the skills and knowledge to complete their inquiry projects, such as generating research questions, effectively searching for and evaluating the credibility and usefulness of sources, and integrating sources within LBST 2301 Critical Thinking and Communication. Through the lenses of information literacy in the field of Library Science and rhetoric and writing studies in the field of Rhetoric and Composition, the researchers have created a curriculum that guides student through the "inquiry and analysis, and evaluation and synthesis of information" processes (UNCC Academic Affairs Assessment, 2018). Information literacy pertains to the ability to identify, evaluate, and apply information sources effectively when seeking and using information for a variety of purposes. These skills are necessary for students to be critically engaged citizens in an information saturated world. Dependent upon the results of our study, this project aims to disseminate this curricular structure as a model to promote and encourage library/faculty collaborations and present models for varying levels of collaboration in and out of the classroom in an effort to optimize students' inquiry process and ultimately their critical thinking.

**Budget Request Page**  
**January 15, 2019 to May 30, 2020**

***BUDGET:*** Request by budget category. Joint proposers must select one PI to be the lead and one department to receive this allocation.

Lead Principal Investigator: Consuelo C Salas

Principal Investigator 800#: 801034748

Title of Project: Assessment of Multi-Discipline Collaboration in the Teaching of Inquiry and Critical Thinking

Allocate operating budget to Department of: University Writing Program

Fiscal Year One (January 15, 2019 to May 30, 2019)		
Faculty Stipend	Paid directly from Academic Affairs fund on May 15, 2019	
911250	Graduate Student Salaries	
911300	Special Pay to Faculty other than Grantee	
915000	Student (Undergraduate or Graduate) Temporary Wages	
915900	Non-student Temporary Wages	
920000	Honorarium (Individual(s) not with UNCC)	
921160	Subject Incentive Fee	\$180
925000	Domestic Travel	
926000	Foreign Travel	
928000	Communication and/or Printing	
930000	Supplies	
942000	Computing Equipment	
944000	Educational Equipment	

951000	Other Contracted Services	\$250
Year One Subtotal		\$430

Lead Principal Investigator: Consuelo C Salas

Fiscal Year Two (July 1, 2019 to May 30, 2020)

Faculty Stipend	Paid directly from Academic Affairs fund on May 15, 2020	\$1,220
911250	Graduate Student Salaries	\$2,250
911300	Special Pay to Faculty other than Grantee	
915000	Student (Undergraduate or Graduate) Temporary Wages	
915900	Non-student Temporary Wages (see PD-17)	
920000	Honorarium (Individual(s) not with UNCC)	
921160	Subject Incentive Fee	\$1,760
925000	Domestic Travel	\$2,000
926000	Foreign Travel	
928000	Communication and/or Printing	
930000	Supplies	
942000	Computing Equipment	
944000	Educational Equipment	
951000	Other Contracted Services	\$750
Year Two Subtotal		\$7,980
TOTAL FUNDS REQUESTED (Year One + Year Two)		\$8,410

**Budget Narrative**

Five Line items are being requested to support this SoTL project.

1. Graduate Student Salaries - \$2,250

A graduate student will be hired in either late Spring or early Summer 2019 at a rate of \$15/hour for 10 hours per week over 15 weeks to help the research investigators collect, organize, and analyze data both quantitatively and qualitatively. The graduate student will also help the study investigators prepare professional presentations, and will be involved in the preparation of a manuscript about the project.

2. Participant Stipends - \$1,940

This study will include a total of six semesters of 4-5 focus groups. We are budgeting for all 45 students to participate each semester, but understand that some participants may not consent to the study or may stop participation in focus groups. As a participant incentive, the research team would like to provide each participant with a \$20 gift card to either Barnes and Noble or Target.

3. Domestic Travel - \$5,590

As part of the plan for dissemination of knowledge, the researchers are requesting funds for two researchers to travel and present at two major disciplinary conferences, the Conference on College Composition and Communication (CCCC) in Milwaukee, Wisconsin from March 24 - 28, 2020, and the American Library Association (ALA) Annual Conference in Chicago, Illinois from June 25 - 30, 2020. The third researcher will attend and present, but we are not asking for monies for the third researcher. We will ensure that hotel and travel are paid for the ALA Conference before the May 30, 2020 deadline.

Item	Cost per Person CCCC	Total for CCCC	Cost per Person ALA	Total for ALA	Total Cost
Registration	\$180	\$360	\$250	\$500	
Airfare	\$390	\$780	\$375	\$750	
Hotel	\$800	\$1,600	\$800	\$1,600	
		\$2,740		\$2,850	\$5,590

4. Other Contracted Services - \$1,000

These monies will be used to pay for professional transcription of focus group audio recordings.

5. Faculty Stipend - \$1,220

These monies will be used as a faculty stipend for Consuelo Salas to be distributed on May 15, 2020.



**UNC CHARLOTTE**  
College of Liberal Arts & Sciences

**Office of the Dean**

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Banita W. Brown  
704.687.0074  
bwbrown@uncc.edu

October 31, 2018

SOTL Grants Committee  
Center for Teaching and Learning  
ctl@uncc.edu

Dear Committee Members:

On behalf of Dean Nancy Gutierrez in the College of Liberal Arts & Sciences, I am writing this letter in support of this collaborative SOTL proposal submitted by Consuelo Carr Salas of the University Writing Program and Department of English and Kim Looby and Natalie Ornat from the J. Murrey Atkins Library which is entitled, "Multi-Discipline Collaboration in the Teaching of Inquiry and Critical Thinking." This proposal aligns with Dr. Salas' efforts to work collaboratively with the university librarians to promote information literacy among students. The researchers have already designed a curriculum that is co-taught by the faculty member and the two research and instructional librarians in Dr. Salas' LBST 2301 course. The curriculum serves to guide students through the "inquiry and analysis, and evaluation and synthesis of information" processes. Follow-up student focus groups will be used in this study to assess the retention, transfer, and application of the students' information literacy skills to other areas of their academic, personal, and civic lives.

I support this proposal. The research project described seeks to help students further develop in one of the key UNC System General Education Competency areas: Critical Thinking and Communication.

Sincerely,

Banita W. Brown  
Associate Dean for Academic and Student Success  
College of Liberal Arts and Sciences  
Associate Professor of Chemistry





October 29, 2018

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Scholarship of Teaching and Learning Grants Committee  
Center for Teaching and Learning  
UNC Charlotte  
9201 University City Boulevard  
Charlotte, NC 28223

Dear SoTL Grants Committee:

I am pleased to offer my support for the SoTL grand proposal submitted by Consuelo Carr Salas, Kim Looby, and Natalie Ornat entitled “Multi Discipline Collaboration in the Teaching of Inquiry and Critical Thinking.” The findings from this study will help to advance UNC Charlotte’s goal for student proficiency in critical thinking, namely inquiry, by helping students learn to create research questions, and critically evaluate, select, and use credible and meaningful resources in their research and writing. This project is particularly robust by virtue of its placement within one of the LBST 2301 Critical Thinking and Communication courses, designed to further develop students critical thinking and communication skills, specifically through the inquiry process.

While assessment of the library’s information literacy curriculum is important in its own right, this study is particularly timely as academic libraries across the country are working diligently to create partnership with different disciplines and find the most effective ways to reach and support students in the rapidly evolving information landscape. I am confident that the findings from this study will be used to develop a replicable model for both information literacy instruction, its assessment, and the teaching of critical thinking and inquiry that can be adopted at other colleges and university across the globe.

I have great confidence in Consuelo, Kim, and Natalie’s ability to manage this project. J. Murrey Atkins Library is fully committed to providing them with any support they may need to make it a success. Consuelo is a second-year Assistant Professor with the Department of English and the University Writing Program. Kim is the library’s Instruction and Information Literacy Librarian and the Anthropology Librarian. Natalie is the Humanities Librarian. Consuelo was the 2018 recipient of the Atkins Faculty Engagement Award for her work with



Kim and Natalie during the 2017-2018 academic year. Together, this team of researchers has the potential to make a powerful impact not only for the teaching and learning of critical thinking and inquiry, but for the overall success of our students and UNCC.

I enthusiastically endorse this project for SoTL funding and look forward to seeing what we learn.

Sincerely,

A handwritten signature in blue ink that reads "Anne Cooper Moore". The signature is written in a cursive style with a large, stylized "M" at the end.

Anne Cooper Moore, PhD  
Dean, J. Murrey Atkins Library



## Project Narrative

### A. Specific Aims

**Overall Purpose.** In support of UNC Charlotte's General Education Learning Outcome # 1 Critical Thinking, this project's purpose is to assess the effectiveness of an inquiry focused curriculum offered by Research Instructional Librarians from the J. Murrey Atkins Library and an Assistant Professor from the University Writing Program (UWP) and Department of English (ENGL). Through the lenses of information literacy (IL) in the field of Library Science and rhetoric and writing studies (RWS) in the field of Rhetoric and Composition, the researchers have created a curriculum that guides student through the "inquiry and analysis, and evaluation and synthesis of information" processes (UNCC Academic Affairs Assessment, 2018). Specifically focusing on LBST 2301 Critical Thinking and Communication (CTC) students' inquiry process, this curriculum provides students with guided instruction on the skills and knowledge to complete their inquiry projects, such as generating research questions, effectively searching for and evaluating the credibility and usefulness of sources, and integrating sources. Dependent upon the results of our study, this curricular structure can be disseminated as a model to promote and encourage library/faculty collaborations and present models for varying levels of collaboration in and out of the classroom in an effort to optimize students' inquiry process and ultimately their critical thinking.

**Objectives.** This study has one primary objective:

1. To assess the effectiveness and impact of a multidisciplinary, IL and RWS, curriculum on students' inquiry and writing process.

**Research Questions.** Research questions include the following:

1. How does a multidisciplinary, collaborative teaching approach to research influence students' information literacy and inquiry skills and knowledge?
2. After this course, what information literacy and inquiry skills and knowledge do students retain and transfer to their information seeking behaviors in their personal, civic and academic lives?

**Rationale for funding.** Many students, first-year freshman and transfer, who enroll at UNCC have not had instruction on the inquiry portion of critical thinking. While students receive instruction on the inquiry process in their University Writing (UWRT) course (1103/1104), the 2,967 students who transfer into UNCC may not have been exposed to this type instruction. By and large students struggle with generating research questions, using academic sources, and many students have anxiety or lack of knowledge in using the library or knowledge of where to look for sources beyond the open web. Additionally, the J. Murrey Atkins Library 2015 -2020 Strategic Plan includes objectives to “strengthen integration of the library instruction program into the curriculum” and “implement innovative technologies and coordinate academic support services to support the curriculum.” This project addresses both the students’ lack of inquiry instruction and the library’s mission to create an integrated curriculum by creating and assessing the researchers’ curricular model and encouraging librarian relationships with students and faculty.

This project originally began as a collaboration between a new instructor of CTC, Salas, and two Research and Instructional Librarians, Looby and Ornat, in the Spring of 2018. While preparing her new course, Salas met with the librarians to discuss areas where students struggled to see how the librarians could assist. As a result of these discussions, the researchers co-created and designed a series of eight class sessions to assist students through the inquiry process with an

emphasis on the information available in various genres of sources, making a researchable research question, searching for multiple types of sources, evaluating sources, and utilizing sources.

It was during and after the semester that the researchers realized that their curriculum had an impact on student learning. From anecdotal observations, it was clear that students had become confident in exploring, accessing and using information provided through the library. Students understood the library as a reliable source of information through resources and librarians, ultimately boosting student skills and knowledge. At the end of the semester, the researchers determined they wanted to know if those skills would transfer beyond the semester as the students continued their academic careers at UNCC. The researchers regrouped and revised their curriculum and integrated protocols to make their curriculum researchable to assess the effectiveness of their instruction.

**Impact on teaching and learning.** CTC is a new addition to the Liberal Studies requirement for general education at UNCC. Taking the place of the second semester UWRT course 1102, CTC builds on the instruction of first-year writing (UWRT 1103/1104) and pushes students to have more attention and focus on critical thinking and communication. While some students are able to test out or transfer credits for UWRT 1103/1104, CTC is a requirement for all students of UNCC beginning in the Fall of 2018. Because inquiry plays a large role in critical thinking, the researchers saw an opportunity to approach inquiry instruction from two disciplinary lenses to ensure that this course prepares students for their major coursework.

Integrated collaboration between Library Science and Rhetoric and Composition, while new to UNCC, is a national trend in inquiry instruction. The two disciplinary organizations, the Association for College and Research Libraries (ACRL) and the Council on Writing Program

Administrators (CWPA) respectively, have similar outcomes for students' learning. The ACRL (2018) defines information literacy as "the set of integrated abilities encompassing the reflective discovery of information, the understanding of how information is produced and valued, and the use of information in creating new knowledge and participating ethically in communities of learning." The CWPA Outcome Statement (2014) of Rhetorical Knowledge states that students should be able to "Locate and evaluate (for credibility, sufficiency, accuracy, timeliness, bias and so on) primary and secondary research materials[...]" Both of these disciplines aim to create proficiency in students' selection and generation of knowledge (see Lilac Project, 2015; Artman and Frisicaro Pawloski, 2018; Veach, 2018; Anderson, Blalock, Louis, Murphy, 2018). By placing these two disciplines into conversation and praxis within CTC, students can receive more focused scaffolded instruction on the inquiry process.

The benefits to student learning results can be disseminated and affect campus wide curricular changes to inquiry instruction with the inclusion of RWS and IL. The results of this study can also help construct an adaptable model of collaboration between teaching faculty and instruction librarians that follows students throughout their inquiry process.

## **B. Literature Review**

Within the past 20 years, the fields of rhetoric and composition and library sciences have increasingly turned their attention to collaborating and preparing students to become effective researchers. Scholars in Rhetoric and Composition who have studied the relationship between IL and RWS have traditionally crossed disciplinary boundaries to explore the benefits of combining the teaching of writing and rhetoric with information literacy (see Norgaard 2003, 2004; Jacobs and Jacobs 2009; Artman, Frisicaro-Pawloski, and Monge 2010; Monge and Frisicaro-Pawloski 2014). More recently, D'Angelo, Jamieson, Maid, and Walker's (2017) edited

collection *Information Literacy: Research and Collaboration Across Disciplines* and Veach's (2018) edited collection *Teaching Information Literacy and Writing Studies* provides research on the various cross disciplinary and implementation models information literacy into students' inquiry, critical thinking, and communication skills (see Alfino, Pajer, Pierce, O'Brien Jenks, 2008, Locklear and McNeily, 2018; Artman and Friscaro Pawloski, 2018; Anderson, Blalock, Louis, Murphy, 2018; FitzGerald and Wilkinson 2018). While this topic has been in discussion for several decades, through a review of the literature it is clear that this integrated collaborative teaching model is timely and has significant value in students learning.

To further these conversations, this study will, through the use of focus groups and student work, provide qualitative and quantitative information on students' inquiry process and critical thinking through collaborative efforts of a UWP/ENGL faculty member and library faculty. Data will also be used to create a model of an integrated approach to inquiry and IL instruction that assists students in becoming critically engaged creators, users and consumers of information in an information saturated world.

### C. Methods

**Participants.** Study participants are and will be students enrolled in LBST 2301 Critical Thinking and Communication with Salas during the Fall 2018 and Spring 2019 semesters.

**Study Design.** The study will be conducted in five phases. *Phase I* consists of secondary data analysis on 35 students from Consuelo Salas' LBST 2301 course from Spring 2018. During *Phase II*, data will be collected from students enrolled in LBST 2301 during Fall 2018 (see Table 1). *Phase III* will commence in the Spring of 2019. Students from Fall 2018 who provided explicit consent to initiate follow-up will be asked to participate in a one-hour focus group session in the Spring of 2019 to assess the transfer of skills and knowledge generated from

the co-taught sessions. *Phase III* will also include collecting data from students enrolled in LBST 2301 in Spring 2019. *Phase IV* will commence in Fall of 2019. During *Phase IV*, students from both Fall 2018 and Spring 2019 who provided explicit consent to initiate follow-up will be asked to participate in a one-hour focus group session in the Fall of 2019 to assess the transfer of skills and knowledge generated from the co-taught sessions. During *Phase V* students from both Fall 2018 and Spring 2019 who provided explicit consent to initiate follow-up will be asked to participate in a one-hour focus group session in the Spring of 2020. The study will end in *Phase V* during Spring 2020.

**Data Collection and Instrumentation.** Data collected for this study will be primarily qualitative, while some data will be transformed into quantitative data. Data collection will occur throughout the Fall 2018 and Spring 2019 semesters, as well as in the follow-up focus group sessions throughout Spring 2020. Data collection will occur with students who provided consent to participate in the study utilizing the following assignments:

<b>Beginning of Instruction</b>
Pre - Information Literacy Survey, Website Analysis 1, Research Journal 1
<b>Midst of Instruction</b>
Research Map, Mapping the Conversation, Website Analysis 2, Research Journals 2, 3,4
<b>End of Course</b>
Post Information Literacy Survey, Website Analysis 3, Research Journal 5, Research Review/Annotated Bibliography, Final Visual Argument

Data collection after the semester will occur via:

- Follow-up Focus Groups - Individuals who consent to follow-up contact will be invited to participate in an audio recorded focus group to determine if the instruction transferred

after the course. Students will be asked to discuss the research skills and knowledge they have used after CTC.

*Anticipated limitations.* Success of this project is dependent upon the cooperation of the student participants. While data can be gathered via the assignments listed above, the follow-up focus groups are integral to the study. The focus group discussion will allow the researchers to assess the transfer of knowledge from the CTC course context to other areas of students' academic, personal, and civic lives, and incentivizing participation allows a higher likelihood of participation.

#### **D. Evaluation**

The researchers will gather and analyze students' assignments listed above in Table 1 as well as the transcribed audio recordings of focus group responses to determine the effectiveness and transfer knowledge from the curriculum. Assessing students work from four key moments in instruction, at the Beginning of Instruction, in the Midst of Instruction, at the End of the Course, and responses that arise in the Focus Group conversations, will help researchers identify what skills and knowledge students entered the course with, if there was a progression of skills and knowledge as they underwent the curriculum, and if those skills and knowledge were transferred to other contexts after the course. Students responses in both their classwork and focus group discussions will be coded using Glaser & Strauss' (1967) constant comparative method from grounded theory. Themes from students' coursework and focus group discussions will be generated with an emphasis on students responses and demonstration of their ability to generate research questions, search, select, evaluate and apply various information sources to their inquiry projects.

With the study findings, researchers will be able to answer the two primary research questions of the study: 1) How does a multidisciplinary, collaborative teaching approach to research influence students' information literacy skills and knowledge? 2) After this course, what information literacy skills and knowledge do students retain and transfer to their information seeking behaviors in their personal, civic and academic lives? By answering these questions, the researchers will be able to determine the effectiveness of the proposed information literacy course sequence and provide evidence of a transferable model to be used within other CTC courses across UNCC.

### **E. Knowledge Dissemination**

Knowledge dissemination will occur locally, nationally, and internationally.

- Local:
  - Poster presentation at the UNCC Center for Teaching and Learning showcase event for SoTL awardees.
  - Provide a formal presentation at Atkins Library, inviting LBST 2301 instructors and administrators, Communication across the Curriculum staff, and UWP and ENGL faculty to attend.
- National:
  - Present preliminary findings at the 2020 Conference on College Composition and Communication, and the American Library Association conference proceedings.
- International:



- Publish a manuscript in a peer-reviewed journal that addresses information literacy, critical thinking and communication in higher education. Target journals:
  - College Composition and Communication
  - College and Undergraduate Libraries
  - Collaborative Librarianship
  - College and Research Libraries

The outcomes of this research will contribute to the body of knowledge on faculty and faculty librarian collaboration efforts on student learning outcomes. It will be applicable to any academic librarian who provides instruction to students in post-secondary education, and any instructor of inquiry-based projects, such as CTC, Rhetoric and Composition, and First-year Writing.

This information is intended to be shared with the wider UNCC, professional library and professional rhetoric and composition communities. The intended outcome of sharing the data is to promote and encourage library/faculty collaborations and present models for varying levels of collaboration in and out of the classroom. The model will be adaptable to a variety of needs, program outcomes, time constraints, and skill sets of library instruction and composition programs.

#### **F. Human Research**

UNCC Institutional Review Board (IRB) has approved this study. The IRB Number is 18-0286 and the Protocol is titled, Faculty/Librarian Instruction Assessment of LBST 2301.

#### **G. Extramural Funding**

We plan to submit this project for funding with the Association of College and Research Libraries Academic Library Impact Research Grants in May of 2019.

**H. Timeline**

<b>Month/Year</b>	<b>Task</b>
October 2018	Submit SoTL Grant Proposal.
<b>Phase One</b>	
November 2018	Continue analyzing secondary data collection from Spring 2018.
<b>Phase Two</b>	
December 2018	Organize data from coursework for Fall 2018. Begin data analysis.
<b>Phase Three</b>	
January 2019	Begin teaching Spring 2019 LBST 2301.
March 2019	Begin reaching out to Fall 2018 students for focus groups.
April 2019	Conduct Spring 2018 focus groups.
May 2019	Organize and data from coursework for Spring 2019. Analysis of Fall 2018 students' focus groups.
June 2019 - July 2019	Continue analyzing data from Fall 2018 and Spring 2019.
<b>Phase Four</b>	
October 2019	Begin scheduling Fall 2018 and Fall 2019 students for focus groups.
November 2019	Conduct focus groups for Fall 2018 and Spring 2019.
December 2019 - February 2020	Conduct data analysis on Fall 2018 and Spring 2019 focus groups.
March 2020	Present at 2020 CCCC.
<b>Phase Five</b>	
March 2020	Begin scheduling student focus groups.
April 2020	Conduct Spring 2018 focus groups.
May 2020	Conduct data analysis on focus groups.
June 2020	Present at 2020 ALA Conference

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