



TRAIL

Teaching Research And Information Literacy

Matt Moberly, Merritt Writing Program
Susan Mikkelsen, Library

2015 Assessment as Research Symposium, University of California, Merced

TRAIL Origins

- Began summer 2013
- New Mexico State University
- Library/MWP collaboration

Students in freshman composition courses struggle with academic research. Can **curricular changes** focused on the addition of information literacy lessons and activities help students be more successful researchers?

TRAIL Goals

- Better integrate information literacy skills in Writing 10 (College Reading & Composition)
- Teach research as a process rather than an event
- Improve the effectiveness and quality of one-shot library instruction sessions
- Improve the quality of student research papers
- Prepare students for research beyond Writing 10

TRAIL Participants

MWP Faculty

- Matt Moberly
- Heather Devrick
- Grace Rocha
- Rex Krueger
- Katherine Lee
- *Tanvi Patel*

Librarians

- Susan Mikkelsen
- Sara Davidson
- Elizabeth McMunn-Tetangco

TRAIL Timeline

Fall 2013

- Faculty recruited
- New curriculum developed
- Writing assignments standardized

Spring 2014

- Piloted new curriculum in 6 sections of Writing 10
- Embedded librarian in Writing 10
- Assessment in Action (ACRL)
 - Formal evaluation of programs that impact student success as a means to measure impact of libraries
 - Campus Team: Sara Davidson(lead), Susan Mikkelsen, Matt Moberly, Anne Zanzucchi, Laura Martin, *Mike Roona*

Observations from Writing 10

- Students struggle to read the academic texts they are asked to use in their research assignments
- Students struggle to distinguish between opinion and fact (evidence)
- Students struggle to identify the *problem* that underlies their research topic or question
- Students struggle to recognize their own research bias

Summer/Fall 2014

- Revised and added assignments to TRAIL curriculum based on what we learned in the pilot
- Developed assessment measures for AIA TRAIL study
- Secured IRB exemption for AIA TRAIL study
- 9 Writing 10 sections implemented the new curriculum

Research Assignments/ Activities

- Think Like A Researcher!
- How to Read a Scholarly Article
- Using Google for Academic Research
- Reading for Keywords
- Understanding the Knowledge/Information Cycle Tutorial
- Guide on the Side Database Tutorials
- Avoiding Research Bias
- Developing Successful Research Topics/Questions
- Reflection Journals

Assessment Measures

- Student pre-semester Research Experience Questionnaire
- Student Final Reflections (Rubric)
- Compare Writing 10 Final Papers (Rubric)
 - TRAIL sections
 - Traditional one-shot library instruction sections
 - No library instruction sections
- Post-semester Faculty Survey

Final Reflection Rubric Scores

	4=Advanced	3=Developing	2=Emerging	1=Marginal	No Score
Changes in Research Process	20%	31%	34%	13%	2%
Evaluating and Selecting Sources	23%	32%	33%	11%	1%
Overcoming Research Challenges	4%	11%	66%	15%	4%
Changes in Attitude and Confidence Level	17%	29%	33%	17%	4%
Transferability of Research Skills	17%	43%	26%	11%	3%
Understanding of "Think Like a Researcher"	23%	30%	33%	9%	5%

Student Comments

- “...now I read more effectively by reading the abstract, introduction, and the ending to determine if the article is suitable for reading fully and determining if it can be used as evidence.”
- “Just because a source is academic does not always make it appropriate to use in a paper.”
- “Not only do I feel more confident now but also I believe I will enjoy writing another research paper.”

Student Comments

- “...I hated doing research because it was a slow, a really long and very involved process. However, by taking this class, I realize that research provides a firsthand opportunity to learn new information and also see and appreciate the diversity of the opinions which exist on my research topic.”
- “Thinking like a researcher means thinking critically, seeing multiple sides and perspectives.”
- “I honestly feel like the skills that I have learned this semester with this course will be vital in any other class that has me do anything with research.”

Student Comments

- “I believe learning more about the research process did help me in my other classes because the research process was more than just searching for sources. The most vital part of the process is actually the critical reading and analyzing which is something that can be used in any class.”
- “...I believe thinking like a researcher means to question everything and tackle a problem from as many different angles as you can which is a skill we will always be able to use in future classes and even in life.”

TRAIL Faculty Questionnaire Responses

Based on your own observations did your students	Yes, more so than previous students	No discernable differences	No, less so than previous students
...engage with research as an ongoing process?	5	0	0
...select suitable resources for their assignments?	4	1	0
...write strong research questions?	4	1	0
...incorporate evidence from multiple viewpoints?	3	2	0
...demonstrate persistence in information-finding?	4	1	0

Based on your experience, **would you promote this model** of integrating research and writing skills to other faculty?

4 out of 5 TRAIL faculty responded **Yes or Definitely**

TRAIL Faculty Questionnaire Responses

- “By the end of the semester, the students in my TRAIL sections were more adept at working through the processes that researchers go through: examining assumptions, reviewing literature and analyzing it, finding gaps in the existing research, conducting primary research, etc.”
- “...Throughout the semester I heard things like ‘Oh, you probably are using the wrong database or need new keywords’ or ‘dude you don't have to start over, just jump back into the research cycle’ or ‘I think you're being biased here’. This level of conversation about research is not typical.”

TRAIL Faculty Questionnaire Responses

- Challenges with the TRAIL curriculum
 - “...not forgetting to emphasize other WRI 10 skills, like rhetorical analysis.”
 - “...The assignments have a lot of potential, and with some reworking, I think they could be very useful for students; however, the existing order of assignments, requirements, and parameters for the assignment were again not realistic models of the kind of research or process that researchers follow in their work.”

What Comes Next?

- AIA Assessment
 - Short term
 - Score student papers (rubric)
 - Compare final paper grades and course grades with rubric scores
 - Long term
 - Focus groups in upper division writing classes to determine which skills transfer
- Potential to be more broadly adopted throughout Writing 10

Questions?