Listening for Structure, Watching for Process:

A Study of Information Literacy from Digital Research to Final Paper -- and the Challenges of Developing that Study

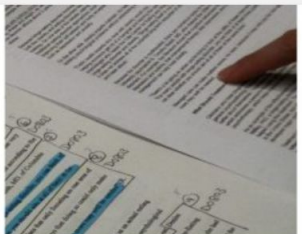
Sandra Jamieson, Diana Fidaoui, Noah Wilson

Georgia International Conference on Information Literacy, Savannah, GA. September 27, 2018

The Citation Project is a series of research studies on source use. Their purpose is to provide data and analyses that can help with educators' questions about plagiarism, information literacy, and the teaching of source-based writing.

By collecting data and replicating or adapting the methods of other studies to analyze it, ongoing Citation Project research builds on and extends the work of other scholars, generating deeper and more nuanced understanding of source-based writing.

http://www.citationproject.net



The Citation Project

Reframing the conversation about plagiarism

Students and Their Sources - NEW RESEARCH!

This single-site, mixed-methods study replicates and builds on other transcontextual studies of student source selection and use, and their understanding of these processes. By following the research and writing of a group of undergraduates from the first library search to the submission of final papers, researchers hope to gain deeper understanding of student information literacy and engagement with source materials, expanding the understanding provided by data collected in previous studies. Follow-up multi-site studies will be developed once this study is complete.

DETAILS AND IRB FORMS

Writing from Sources

Citation Project researchers studied researched papers written by 174 first-year students at 16 US colleges and universities and collected in the Citation Project Source-Based Writing Corpus (CPSW). Intertextual analysis of these students' work produced a data-based portrait of student reading and source-use practices, presenting an image of students moving into their sophomore year of college while only sometimes demonstrating expert reading, summary, and citation practices. The findings can guide source-use and plagiarism policies and pedagogies.

FINDINGS & RELATED PUBLICATIONS

Teaching the Teachers

This single-site mixed-methods study of graduate students explores what future teachers know about citation practices and how they apply that knowledge in their own work. By using a design-based approach that engaged research subjects in analysis of their own writing, this study enhanced participants' understanding of source integration and helped them develop strategies for teaching, while also generating data for others to study. These pedagogical methods can be adapted to other contexts, and the findings can guide revision of graduate and teacher education.

FINDINGS & RELATED PUBLICATIONS

Citation Project "Students & Their Sources" (SATS) research team

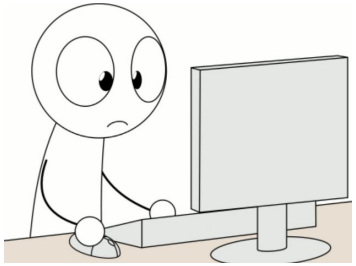
Jordan Canzonetta (Project Manager)
Diana Fidaoui
André Antonio Habet
CC Hendricks
Rebecca Moore Howard
Sandra Jamieson
Jason Markins
Noah Wilson

http://www.citationproject.net/studies/sats/

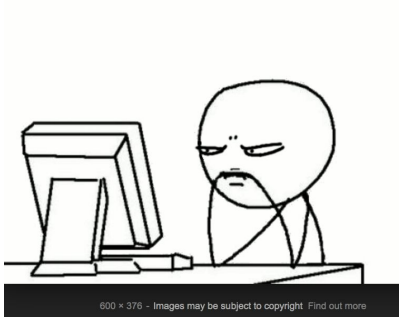
SATS research moments in the research and writing process

From research → **to finished paper**

Researching:
Survey, screen capture, and speak aloud protocol gathered as students begin their research (LILAC methodology)



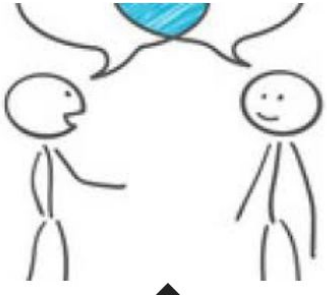
Drafting: Screen capture, and speak aloud protocol gathered as students work on a draft using sources



Revising: Screen capture, and speak aloud protocol gathered as students revise using feedback

Final papers collected and source-use coded (Citation Project methodology)

Reflecting: Final interview once the paper is submitted (using Olsen & Diekema methodology



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-- and the Challenges of Developing that Study

Sandra Jamieson: *Drew University.* "Introduction - Research and Replication: The Importance of Building on and Extending Research."

Diana Fidaoui: *Syracuse University.* "The Value of Interviews and the Challenge of Navigating the Interview Process."

Noah P. Wilson: *Syracuse University.*"Accessing Technology, Troubleshooting Infrastructure: The Value of Pilot Studies for Building and Adjusting Project Technology."

Time for discussion, questions, suggestions, ideas!

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Research and Replication: The Importance of Building on and Extending Research.

Sandra Jamieson

Drew University

Why should we replicate existing research?

"The claim that 'we already know this' belies the uncertainty of scientific evidence. **Innovation** points out paths that are possible; **replication** points out paths that are likely; progress relies on both. **Replication can increase certainty when findings are reproduced and promote innovation when they are not**."

(Open Science Collaboration. 2015. "Estimating the Reproducibility of Psychological Science." Science 349. p 6251)

"too often, to present methods—including the initial failures and adjustments that mark the development of pilot studies—is to invite critique rather than the **refinement and revision** Braddock, Lloyd-Jones, and Schoer (1963) present as **part of the process healthy research communities engage in together.**

(Tricia Service, 2017. *Points of Departure: Rethinking Student Source Use and Writing Studies Research Methods.* Ed. Tricia Serviss & Sandra Jamieson. p.5)

How should we replicate existing research?

"approximate replication" -- "duplication of studies with nonessential differences"

(Mu, Congjun, and Paul K. Matsuda. 2016. "Replication in L2 Writing Research: Journal of Second Language Writing Authors' Perceptions." TESOL Quarterly 50 (1): 201–19)

SATS research methods - studies being (approximately) replicated

THE LILAC STUDY

Blackwell-Starnes, Katt, and Janice R. Walker**. "Reports From The LILAC Project: Designing a Translocal Study,"** In *Points of Departure: Rethinking Student Source Use and Writing Studies Research Methods.* Ed. Tricia Serviss & Sandra Jamieson. Utah State UP, 2017. 62-82. DOI: 10.7330/9781607326250.c002

SPEAK ALOUD PROTOCOL

Emig, Janet. ***The Composing Processes of Twelfth Graders***. NCTE Press, 1971

INFORMATION LITERACY INTERVIEWS

Olsen, M. Whitney, and Anne R. Diekema. "**Asking the Right Questions: Using Interviews to Explore Information-Seeking Behavior."** In *Points of Departure: Rethinking Student Source Use and Writing Studies Research Methods.* Ed. Tricia Serviss & Sandra Jamieson. Utah State UP, 2017. 209-226. DOI: 10.7330/9781607326250.c007

THE CITATION PROJECT

Jamieson, Sandra, and Rebecca Moore Howard. "**Sentence-Mining: Uncovering the Amount of Reading and Reading Comprehension In College Writers' Researched Writing**" in *The New Digital Scholar: Exploring and Enriching the Research and Writing Practices of NextGen Students*. Eds. Randall McClure and James P. Purdy. Medford, NJ: American Society for Information Science and Technology, 2013. 111-133.

A successful pilot study is one that identifies all the places the large-scale study could go wrong . . .

Challenges faced by a large, multi-site research team:

- **Research team communication (Slack, email, Zoom, text . . .)**
- **Working with so many different research methods (design, application, coding)**
- **Organization and coordination of team members (who does what, when . . .)**
- **Storage of materials for research teams (Google, Dropbox, Sync.com . . .)**
- **Timing (meetings, data gathering, coding, writing . . .)**
- **Scalability (from one class to several, then to a new site…)**

A successful research project has many moving parts--especially trans-contextual, multi-site, and multi-modal research!

Benefits of working with a larger research team:

- **Many heads work together to solve inevitable problems**
- **At least one researcher is likely to be around when tasks need to be done or problems occur (often at odd hours)**
- **Division of labor for different *aspects of the work* (project management, IRB, grant, website, conference proposals . . . but also shared responsibility)**
- **Division of labor for different parts of a *multi-part study* and reports (Information Literacy data; writing process; interviews; multimodal texts)**
- **Multiple opportunities for collaboration, writing, & conference presentations!**

Having a project manager coordinating the parts is ESSENTIAL

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The Value of Interviews and the Challenge of Navigating the Interview Process

Diana Fidaoui

Syracuse University

Value of Interviews

To gain a deeper understanding of how students talk about and make meaning of both the research process and the products resulting from that process.

Perceptions/Views/Perspectives/Descriptions of Lived Experiences
(Navigating research process & producing product)

NOT Opinions

Students
Words, Lenses

Interview Design

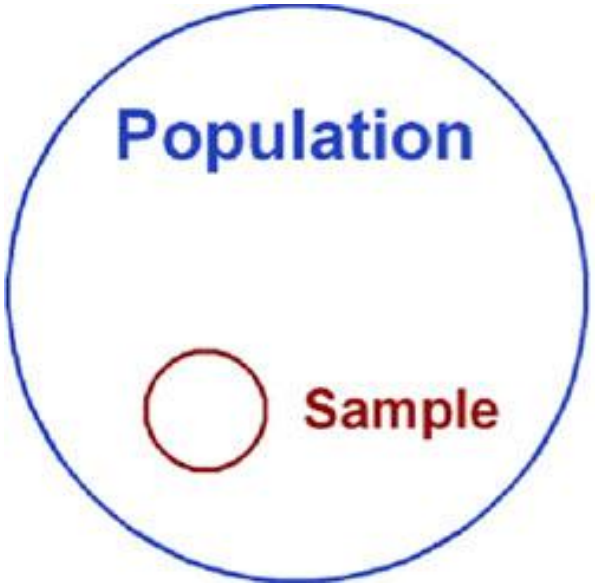
Semi-structured Interviews

Interview Protocol
(Adapted from Olsen & Diekema, 2018)

12 Interview Questions

Sampling

- A purposive sample of (N=4) undergraduate female students enrolled in a writing course at a private university in North America
- Participants signed the consent forms and submitted all parts of the project
- Three participants submitted multimedia projects
- One participant submitted a pdf project
- 4 participants, ONLY, were recruited



Collecting & Storing Data

- Three researchers conducted interviews at participants' convenient times
- Interview team leader
    - trained interviewers
    - sent out interview recruitment email
    - scheduled interviews with participants and researchers
    - organized interview schedules (Excel sheet)
    - reported interview schedules to system administrator
    - emailed Zoom Pro meeting links to participants prior to interviews
    - interviewed participants along with other researchers
- System administrator
    - set up interview meetings using Zoom Pro
    - supervised interview process with no intervention in interviewing (Troubleshooting, note-taking/field notes)
    - stored interview data in Sync.com (all files pertaining to each participant)

Transcribing & Coding Data

How to code interview data?

Developing a codebook

Pilot Study - Interview Challenges & Takeaways

- **Issues with timing**
  - ➢ *Send interview recruitment email and schedule interviews after students upload their final products (to maximize students' participation)*
- **Issues with technology**
  - ➢ *Find a working mechanism for solving technological challenges experienced by students and researchers before and during the interviews*
- **Issues with coding data**
  - ➢ *Decide on what to code (words, body language, field notes)*
- **Issues with distressed participants**
  - ➢ *Apply appropriate management and interview techniques to create a supportive interview atmosphere*
- **Issues with distressed researchers**
  - ➢ *Request support of team members to conduct interviews; rescheduling interviews is another option*
  - ➢ *Recruit more research team members to conduct interviews for the larger study*

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Accessing Technology, Troubleshooting Infrastructure: The Value of Pilot Studies for Building and Adjusting Project Technology.

Noah P. Wilson

Syracuse University

Best Laid Plans with Technology...

- Murphy's Law -

Anything that can go wrong, will go wrong.

- Smith's Law -

Murphy was an optimist.

The Original Plan

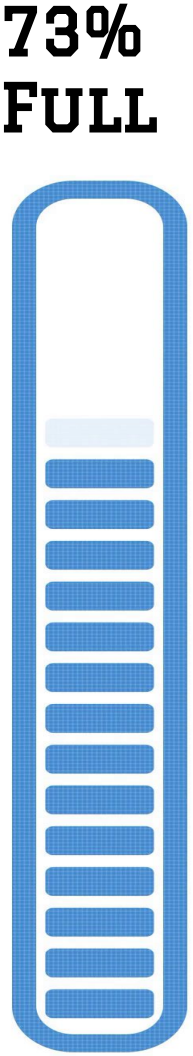
- Camtasia Free 30-Day Trial
  - 3 - 20 minute Recordings (450mb each).
- DropBox Professional (2TB)
  - Pre-Made Folder for each class section /w subfolders for each student.
- In-Person Training/Walkthrough for each class section
  - Walk-Through Camtasia installation and use.
  - Walk-Through for DropBox Uploading.
- Open Office Hours for Additional Training/Troubleshooting
- Assignments designed as regular part of the course

Issue 1 - Permissions

- Permissions/Access with Dropbox gets complicated quickly.
- Folders synced to a computer can vary from what is visible in the online interface.
- If you have a file/folder architecture more than one subfolder deep, access becomes an "all or nothing affair."Users can, and accidently will, remove files that are not their own.
- When users delete files it doesn't remove them, it just makes them inaccessible. Only administrator level permissions can "delete."

Issue 2 - Storage

- Storage adds up quickly:
  - 20 minutes of Camtasia Video is 450mb.
  - Three camtasia videos is approx. 1.31gb.
  - A section of 20 students is approx 27gb.
- Uploading takes far longer than students assume - even more so on a wireless connection.
- Connecting a folder from an professional dropbox account to your smaller sized free account has complications.
- Migrating from Dropbox to Google Drive has permission issues. Big differences between private Google Drive and Unlimited Google Drive for Education.



The "New" Plan

- Camtasia Free 30-Day Trial
- Sync.com - Business Solo (2TB)
- In-Person Training/Walkthrough for each class section
- Youtube as an intermediary
    - Students upload videos as "unlisted" with unique links.
- SATS Team downloads video from youtube and uploads to student folders in sync.com (ideally within a week of student submission)
- Students have access to a sync folder with all of their videos, surveys, etc (no account needed, they get a unique link).

Pilot Study - Technology Challenges & Takeaways

- The simplest technology can end up having the most issues (Camtasia, was the easy part).
- Storage will be the number one technical issue video research projects will have (video fills up space quickly).
- Test the permission structures of whatever storage system you are utilizing (check permissions for how subfolders more than 1-2 levels work in actuality).
- Uploading will always take longer than assumed. Synching/"attaching" folders across account types (professional vs personal) has quirky issues (utilizing youtube).

FINAL TAKE-WAYS

WHAT WE LEARNED FROM THIS PILOT, & SUGGESTIONS FOR FUTURE RESEARCH

Overall Takeaways from this pilot study

PROJECT PLANNING & COORDINATION

- Projects like this REALLY benefit from having one (super-organized) person **coordinating both** team and task--and the team needs to trust this person, but also recognize that nothing will run smoothly 100% of the time!
- Research like this benefits from actively inviting an **interdisciplinary team** (teaching & curriculum, librarians, digital humanities, comp/rhet, technical writing) who bring different perspectives & questions to the project
- **Replicating** the methods of other studies is harder than it might seem because even when researchers share their methods they rarely also share their logisticas or their challenges/failures, so it is not always clear why they made decisions they did, or even that they were choices among options
- Explore available **technology** before you start, asking how other researchers share and store similar data and checking limitations of software options
- **Document** every stage of the research, ideally in one shared document or notebook held by the project manager (and taken to each meeting)

Overall Takeaways from this pilot study

PROCESSING AND UNDERSTANDING DATA

- Don't to go in thinking you know what you will find -- be open to **surprise**!
- Sometimes the value of research is not what you expect -- failure to complete the research or generate sufficient data is not actually failure . . . it is an opportunity for **learning and innovation**
- **Share the failures** as well as the data and the final successful methodology. The more our field encourages reports of failure and evolving logistics and methods, the more successful research in our fields will be
- **Replicating** the coding methods of other studies may be difficult because coding categories are rarely published in detail along with findings. Even when they are, replication cannot exactly reproduce previous research because the context is always different, findings may also therefore be different--and that is an important conversation to have!
- **Small scale research** replicating other studies allows single sites to add to the overall data and expand our understanding. THIS IS GOOD!

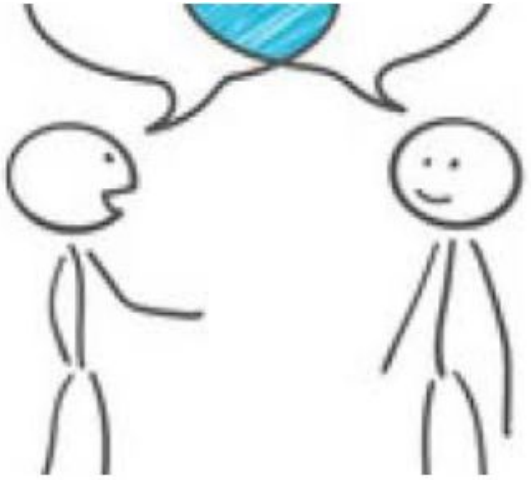
Time for talking!

Questions?

Observations?

Suggestions?

Ideas?



Thank you for coming!

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