# Using the Past to Inform the Present:

# A Historical Review of Undergraduate Research Assignments

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# Overview

Literature review of articles describing research paper assignments

Sampled before and after the advent of web search engines

- How did instructors teach the research paper in the past?

- Did the World Wide Web change the way research papers were taught?

- What parallels can we draw between the introduction of web searching and the recent introduction of generative AI?

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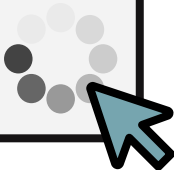
# Research papers are scary!

Foley, J. E. (2001). **The Freshman Research Paper: A Near-Death Experience.** *College Teaching*, *49*(3), 83–86.

Schumm, J. S., & Radencich, M. C. (1984). Readers'/Writers' Workshop: **An Antidote for Term Paper Terror**. *Journal of Reading*, *28*(1), 13–19.

Szentkiralyi, E. (1996). **Research Papers and Their Pitfalls**. *The English Journal*, *85*(1), 74–77. [https://doi.org/10.2307/821131](https://doi.org/10.2307/821131)
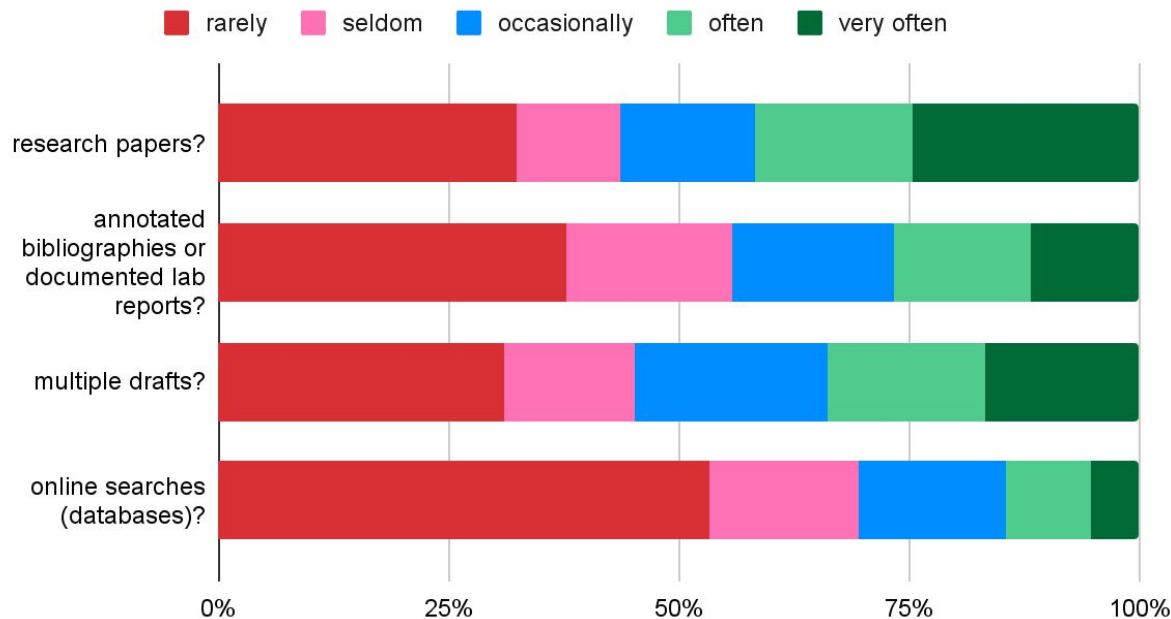
"Ambrose Bierce refers to this kind of drudge-work as '**moving tombstones from one graveyard to another**,' and readers as well as writers are dragged down by the lifeless enterprise that his metaphor so accurately reflects." (Capossela, 1991, p. 75)

"…the traditional 'research paper'—an assignment which basically consists of '**moving tombstones from one graveyard to another**' and which students typically dread." (Griffith, 1995, p. 16)

# Prevalence of research paper assignments

Data from a 1989 survey of 4280 U.S. instructors (Blackburn and Lawrence, 1992):

How often did instructors of intro courses assign...

■ rarely   ■ seldom   ■ occasionally   ■ often   ■ very often

- research papers?
- annotated bibliographies or documented lab reports?
- multiple drafts?
- online searches (databases)?

0%   25%   50%   75%   100%

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# **Struggles for students writing research papers**

1. Finding sources

   a. Before web search: students' sources are limited to what they find in their library

   b. Research moves online: source evaluation has become more important

2. Using sources

   a. Papers are a patchwork of quotes and (very close) paraphrases from different sources (usually from the first couple pages of the source)

   b. No synthesis; sources are not in conversation with each other

   c. See, e.g., Jamieson (2016) and other Citation Project publications

# Research questions

Did the advent of web searching affect research paper assignments?

> Hypothesis: Instructors specified source types and/or taught source evaluation.

How did instructors in the past deal with problems with the research paper assignment?

> Hypothesis: Instructors scaffolded assignments and taught note taking skills.
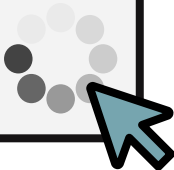
# Methods

- JSTOR: Broad database with the search capabilities we needed

- Dates 1984-2004 (Yahoo! Search begins in 1995)

- What we recorded from each article

    - class type

    - page and source requirements

    - scaffolding

    - library vs original research

# Build a new dataset

A dataset is a collection of documents that you want to use to analyze/visualize. Use the filters on the left to limit the contents relevant for your analysis.

**Build**

## Filters

× Clear Filters

Adjusting filters will auto update the chart.

### Keyword ⓘ

Search

(("research paper" OR "research papers" OR "term paper" OR "term

Learn more about the keyword search syntax.

### Publication Title(s) ⓘ          Browse titles

Enter publication title

### Publication Dates ⓘ

Start year
1984

to

End year
2004

### Language(s) ⓘ

Enter language

⊘ English

### Document type ⓘ

☐ Article (5,343)

☐ Chapter (12)

## Your search results - (5,367 total documents)

(("research paper" OR "research papers" OR "term paper" OR "term papers") AND ("higher education" OR college* OR universit* OR undergrad*)) from JSTOR in JSTOR subject(s) Education and language(s) English from 1984 - 2004

| **Trends across results** | Search within results |

Discover trends across your search results.

### Documents over time ⓘ          Learn more ⋮

View how your documents change across publication dates.
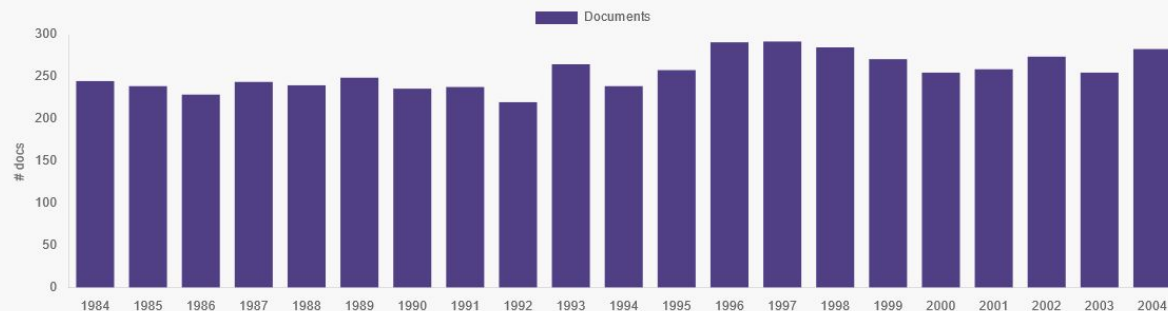


Documents

### Keyphrases ⓘ          Learn more ⋮

Reveal significant terms or keyphrases in your documents.
Learn more about how we assign Constellate keyphrases.

💬 Help us make this better

# Results: Overview

1.  We noticed **themes** throughout all the articles we skimmed

2.  We recorded detailed **data** for articles that describe a specific assignment

    - Course subject/discipline

    - How were topics assigned?

    - What types of sources were used? How many?

    - How long were the papers?

    - Was it all library research or included original research?

# Results: Overall Themes

**Did the advent of web searching affect research paper assignments? No significant changes**

- Online research
  - Provide discipline-specific websites, rather than trusting students to find sites on their own
- Plagiarism
  - Students downloading papers online, or copying and pasting from websites
  - Usually presented as a moral failing rather than a skills issue
  - Scaffolding and making paper topics hyper-specific were the most common solutions
- Library research
  - "Library resources" was a common descriptor for acceptable source types
  - Accepted popular sources when they were from the library
- Should we teach research papers?
  - Many opt for alternative assignments
  - Still, many champion the research paper for "critical thinking" and to emulate professional work

# How research papers *should* be taught

Same problems as we see now; recommendations to address these issues include:

- Library instruction

- Taking time in class to teach specific skills (notetaking, citations, etc.)

- Scaffolding assignments

- Letting students choose their own topics

- Group assignments

- Approximating real scholarly processes: students get to "think like a scientist", "think like a historian", etc.

# Results: Overall Numbers

- 3,883 Articles were pulled (after removing Front Matter, Calls for Papers, etc.)
- 117 Articles describe a research paper assignment
  - Before Yahoo! 89
  - After Yahoo! 88
- 241 Articles mention assigning a research paper but provide little to no details
  - Before Yahoo! 113
  - After Yahoo! 128
- 3,525 Articles were not relevant
  - Calls for papers
  - Journal titles
  - Self-referencing
  - Not undergraduate
  - Not in the US
  - Broad discussions

# Results: Disciplines



Articles by journal discipline

# Results: Journals

Journal of Architectural Education (1984-)
Die Unterrichtspraxis / Teaching German
Journal of Science Education and Technology
Journal of Educational Technology & Society

The Radical Teacher

Journal of Financial Education

Educational Technology

The American Biology Teacher

Family Relations                                    TESOL Quarterly

College Teaching

The Journal of Economic Education    Journal of Developmental Education
College Composition and Communication    The Journal of Epsilon Pi Tau
Bilingual Review / La Revista Bilingüe

The Mathematics Teacher
Journal of Basic Writing    Transformations: The Journal of Inclusive Scholarship and Pedagogy
Hispania

Journal of College Science Teaching

Journal of Reading                    ASEE Prism

Teaching Sociology

The History Teacher

The Journal of General Education

NACTA Journal

Research and Teaching in Developmental Education

Feminist Teacher

The English Journal

Journal of Adolescent & Adult Literacy

Counterpoints

Improving College and University Teaching

The French Review

# Results: Who was writing about this?

Writing Across the Curriculum (WAC)

- Gaining traction in late 70s

- Specialized journals by 90s

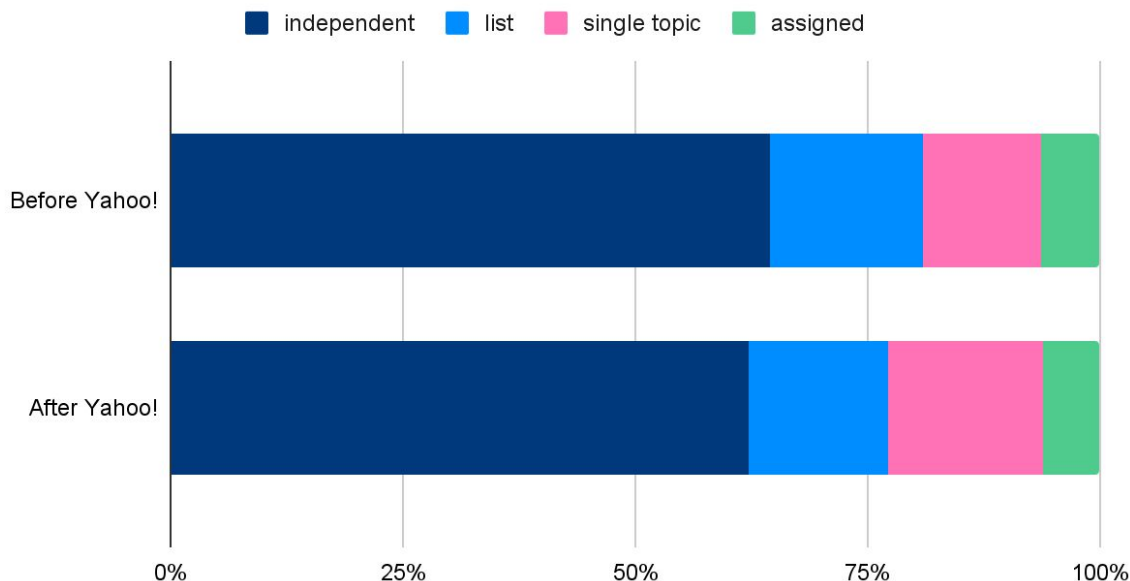- See Palmquist et al. (2020), and Loux and Stoddard (1994)

Creative interdisciplinary courses



Class Type

■ Discipline   ■ Composition
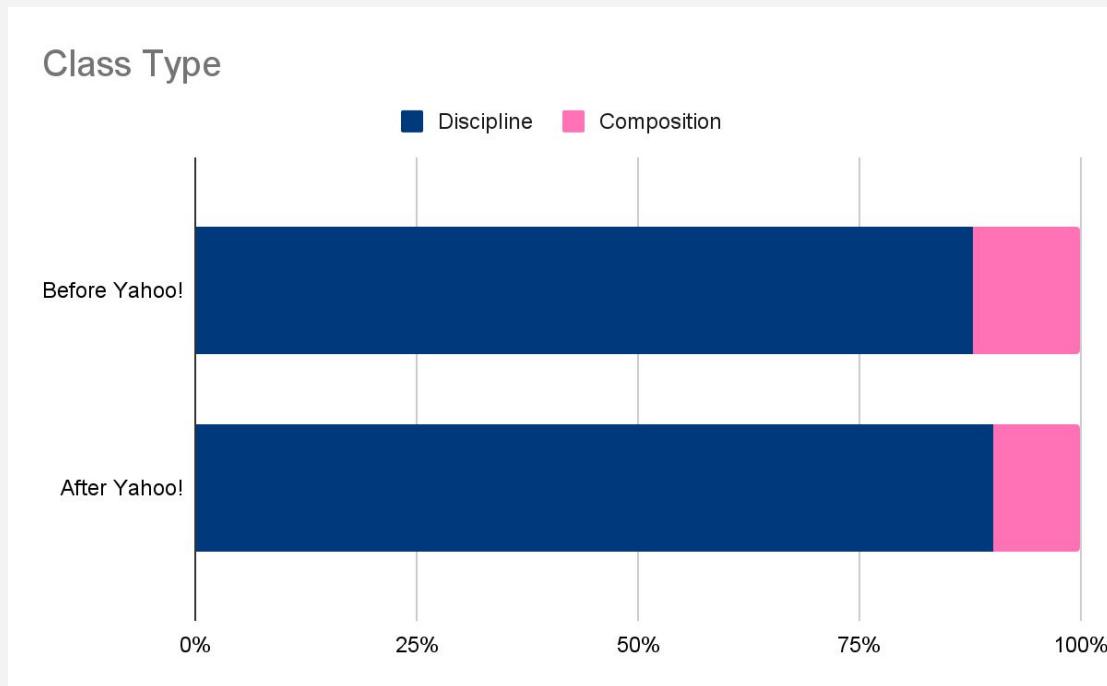
# Results: Topic Choice and Page Length

- Emphasis on letting students choose their topic or individual focus

- Page length

  - Before Yahoo! 11.24

  - After Yahoo! 14.03

## Topic Selection

■ independent  ■ list  ■ single topic  ■ assigned

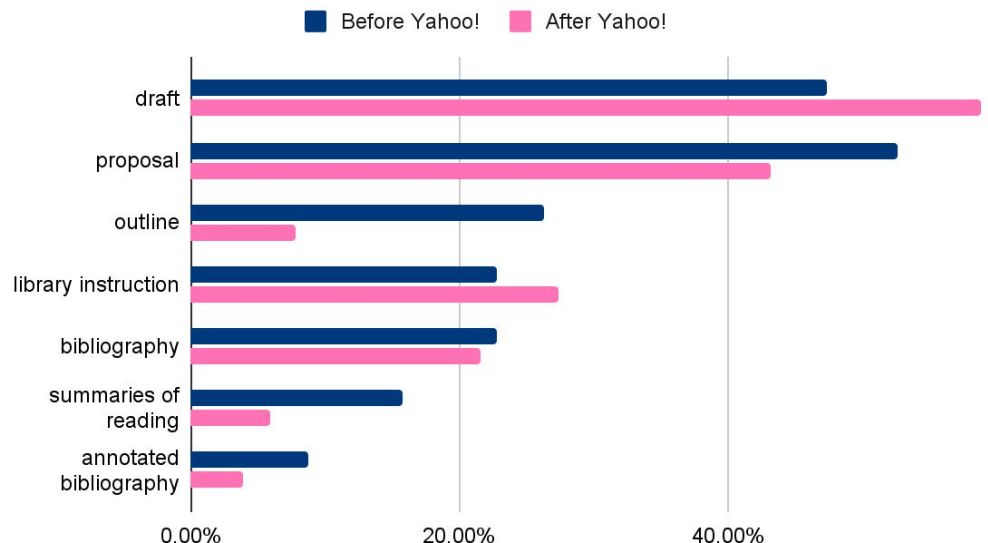| | |
|---|---|
| Before Yahoo! | |
| After Yahoo! | |

0%   25%   50%   75%   100%

# Results: Scaffolding

- Concerned about using papers found online

- Articles that mentioned scaffolding

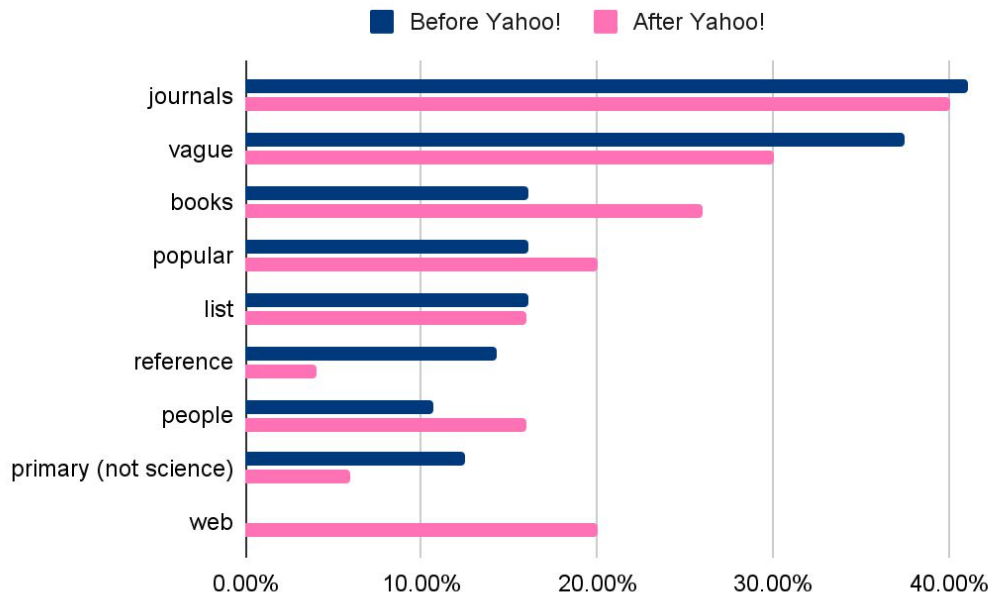  - Before Yahoo! 57(64%)

  - After Yahoo! 51 (58%)



Scaffolding

Before Yahoo!    After Yahoo!

# Results: Sources

- Articles that mentioned source types

  - Before Yahoo! 56 (63%)

  - After Yahoo 50! (57%)

- Number of sources required

  - Before Yahoo! 6.72

  - After Yahoo! 13.26

  - Most did not mention a specific number

## Source Type



Legend: Before Yahoo! (dark blue), After Yahoo! (pink)

Categories (top to bottom): journals, vague, books, popular, list, reference, people, primary (not science), web

X-axis: 0.00%, 10.00%, 20.00%, 30.00%, 40.00%

# Discussion: How this applies now

1. Nothing has changed!
    a. Instructors reported the same problems with student research papers that are seen today
    b. In general, the way research papers are taught varies widely. Many do not follow best practices.
2. Parallels with genAI
    a. Concerns about cheating
    b. Some evangelists, but many instructors choose to ignore it or simply ban it
    c. What needs to happen: teach how to use it as a tool
        i. Need new teaching strategies
        ii. New assignment types? New scaffolding?
        iii. What role do librarians have here?

# Further Research

- This was a preliminary attempt at this study; we plan to refine our methodology and publish as an article

- How are instructors writing assignments now?

  - Analyze assignments and syllabi from WMU instructors

- How do students tackle the research paper assignment now?

  - Surveys or interviews with students

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