First, **Greatest**, or Last:

Does the Sequence of a Library One-Shot Instruction Session Affect Students' Retention of Concepts?

the **Big** *idea*

{overview}

MSU librarian sessions cover multiple topics.

Instruction librarians present "one-shot" instruction sessions to targeted classes each semester, covering multiple topics, often emphasizing a particular skill or resource.

Librarians report ALL topics covered.

Librarians record the topics they covered in each session, indicating which they presented First, with Greatest emphasis, and Last.

Students report ONE topic found "helpful."

After attending a library session, students complete a short survey where they list the "one skill or resource" they found helpful.

Looking at data from two semesters, we ask:

The researcher looked for patterns between the topics that librarians reportedly placed their Greatest emphasis on and the skill or resource students reported to find helpful, using data from 5 librarians in 14 classes over 2 semesters.

Is librarian intention...

A librarian may not lead or conclude an instruction session with the topic they think is the most important.

...a stronger factor than instruction sequence?

The *Serial Position Effect* finds that first items (Primacy Effect) and last items (Recency Effect) tend to be recalled at higher rates than items placed in the middle of the list.

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{methods & materials}

MSU Libraries has collected instruction session data for nearly a decade. The Library Instruction Form was revised in 2015 to expand the list of Library Instruction Topics and ask librarians to begin marking topics by [F]irst, [G]reatest emphasis, and [L]ast.

The above are actual Library Instruction Forms used in classes along with three corresponding Student Feedback Surveys forms.

The set in the top left show a class of 17 students instructed on 9 concepts (Library Homepage first, Google Advance Search emphasized greatest, and Google Scholar last). Student feedback samples show Google Trends, NYT Chronicle, and a Google Advance search trick as one useful skill or resource found helpful in learning.

The set in the bottom right show a class of 16 students instructed on 11 topics (Information Cycle first, Communication and Mass Media Complete emphasized greatest, DOIs last). Student feedback samples show emailing articles from a database, exact phrase searching, and a *website as useful skills or resources they found helpful in learning.

*erroneously attributed to the librarian's presentation, but included here because the student wrote, correctly, that "AJ was great!"

Course Entry #	What is one skill or resource that you found helpful in learning about today?	F	L	G	O	X	Library Instruction Topics	(F)irst Topic	(L)ast Topic	(G)reatest Topic	EBSCO Databases Covered	Other Databases/Sites /Concepts
85944	Resource: Web of Science!!!		1				Library Homepage;Search ,;Course/Subject LibGuide;Citation managers;Web of Science;Google Scholar;Boolean;Truncation;"Exact phrases";Subject Headings	Cinahl	Web of Science	Medline	Medline Cinahl	Web of Science
85944	Google Scholar				1		Library Homepage;Search ,;Course/Subject LibGuide;Citation managers;Web of Science;Google Scholar;Boolean;Truncation;"Exact phrases";Subject Headings	Cinahl	Web of Science	Medline	Medline Cinahl	Web of Science
85944	end Note				1		Library Homepage;Search ,;Course/Subject LibGuide;Citation managers;Web of Science;Google Scholar;Boolean;Truncation;"Exact phrases";Subject Headings	Cinahl	Web of Science	Medline	Medline Cinahl	Web of Science

Screenshot of Excel workbook used to code student responses.

Criteria: The 14 instruction sessions (with 261 responses) used in this study were selected based upon if the librarian covered six or more topics in the session; remembered to indicate which topic was First, Greatest, or Last—and if each was unique (i.e. if Boolean was emphasized Greatest, it was not also presented Last or First). The classes spanned grade level, discipline, and librarian, but all were held on Murray's main campus, and in classes part of the "library scaffold" (which tend to be required courses within disciplines that have a distinct research element).

Coding: The researcher used spreadsheets with sheets for each class. All student responses were listed, as were topics librarians covered (including which were marked First, Last or Greatest). The researcher marked each student response as either (F)irst topic covered, (G)reatest topic covered, (L)ast topic covered, (O)ther listed Library Instruction Topic recorded as presented by the librarian, and (X) for non-answers (left blank, "n/a," or something to the effect of "all of it" or "nothing").

{results}

100 **O**ther (**38.31%**)
84 **X**-non-answer (**32.18%**)
38 **G**reatest (**14.55%**)
23 **F**irst (**8.81%**)
16 **L**ast (**6.13%**)

{conclusions}

(G) did have the largest number of responses between (F), (G), and (L). However, both (O) and (X) each had more responses than (F), (G), and (L) combined.

Although students did tend to find most useful what the librarian emphasized Greatest than First or Last, on the whole, Other topics and Non-answers were listed at much higher rates than those identified First, Greatest, or Last.

While it is troubling that (X) non-answers accounted for 32.18% of responses compared to a combined 29.52% for (F)/(G)/(L), it is also hopeful to note 67.83% of responses actually did connect to something the librarian taught.

{problems}

1. *Serial position effect* studies refer largely to participants' ability to recall items from a list. In this study, students are not presented a list, but rather, are "taught" on a set of topics that are later compiled into a list with sequencing.

2. Memorization of a term does not necessarily reflect comprehension of a concept. Equally, where a complex concept may be understood, a single-word or phrase to describe it might be a more difficult task to formulate on-the-spot.

3. Self-reporting is never perfect.

{next steps}

1. Continue the study in future semesters.

2. Look for changes if librarians reverse the order of topics in their instructions sessions.

3. Factor in data for student demographics, librarian self-assessment, and topic "newness."

{further consideration}

American Psychological Association. (2015). Serial position effect. In *APA Dictionary of Psychology (2nd ed.). (p. 968). Washington, DC: American Psychological Association.*

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