What's Format Got to Do with It?

The Role Information Formats Play in Evaluating Search Results

Wednesday 17 March 2021
3:00-4:30 PM EDT

RSiC
RESEARCHING STUDENTS'
INFORMATION CHOICES

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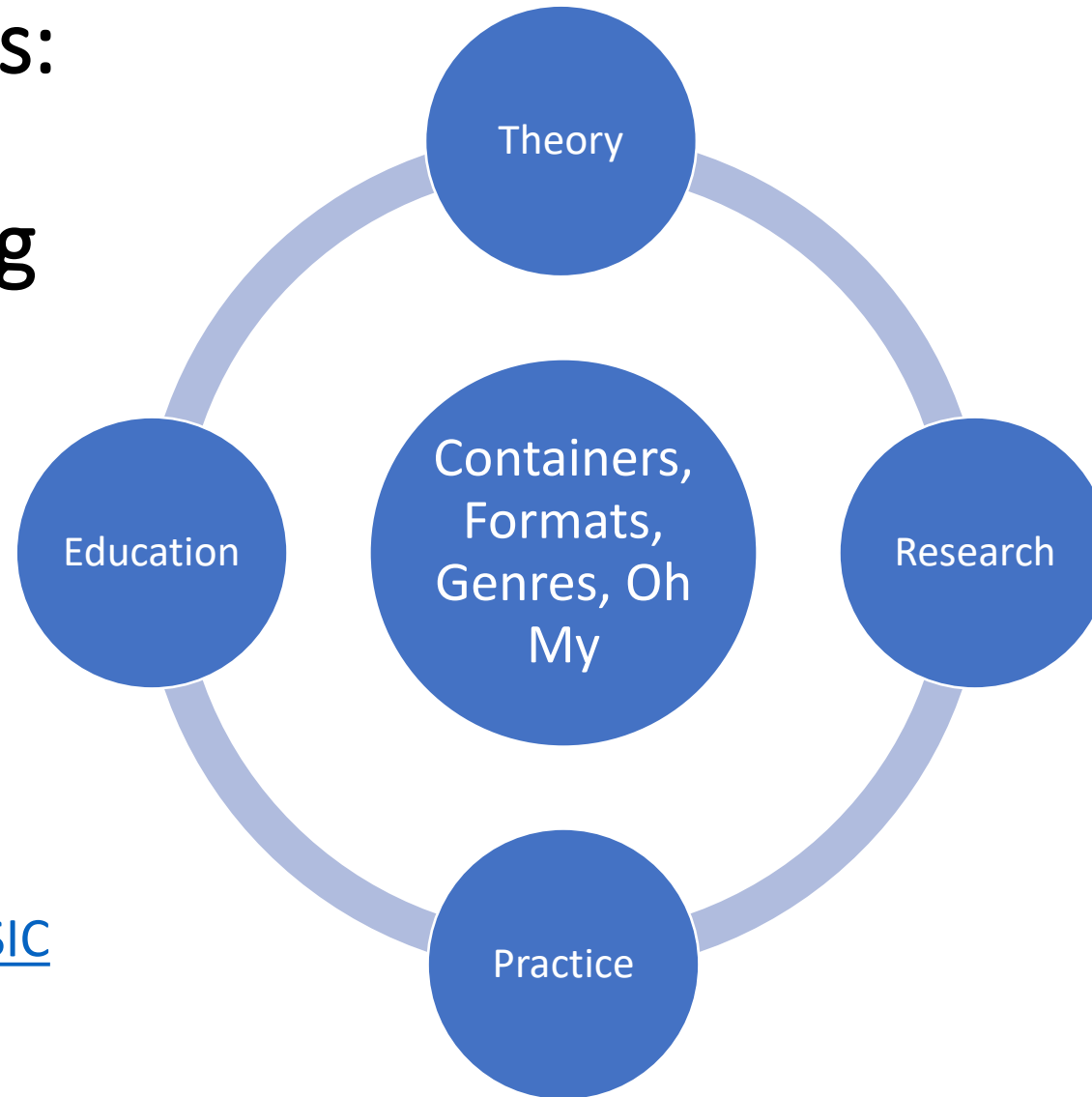Senior Research Scientist
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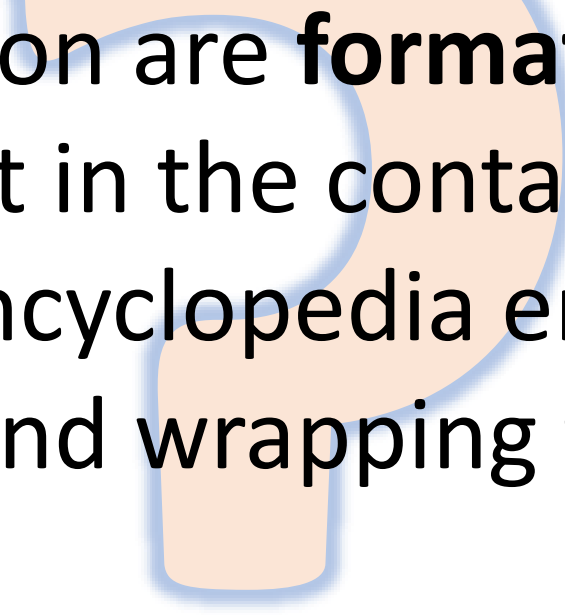
RSiC
RESEARCHING STUDENTS'
INFORMATION CHOICES

Researching students' information choices: Determining the identity and judging credibility in digital spaces (RSIC)

LG-81-15-0155

Theory

Education

Containers, Formats, Genres, Oh My

Research

Practice

https://guides.uflib.ufl.edu/RSIC

"Google Generation are **format agnostic** and have little interest in the containers (reports, book chapters, encyclopedia entries) that provide context and wrapping for information 'nuggets'."

(Williams & Rowlands, 2007)

Research questions

- How do STEM students, ranging from 4th grade to graduate school, determine the credibility of online information resources?
  - What cues from a web search results screen do students use to judge the credibility of online information resources?
  - How do students' characteristics influence their credibility judgments of online information resources?
- Do STEM students from 4th grade to graduate school differentiate among different types of online information resources during point-of-selection?
  - What cues from web search results screens do the students use to identify online information resources?
  - How do students' characteristics and experiences influence their identification behaviour?

(Cataldo et al., 2020)

Research methods

Data Collection

- Pre-screen survey

- Simulation
    - Pre-interview
    - Information choice tasks
    - Post interview

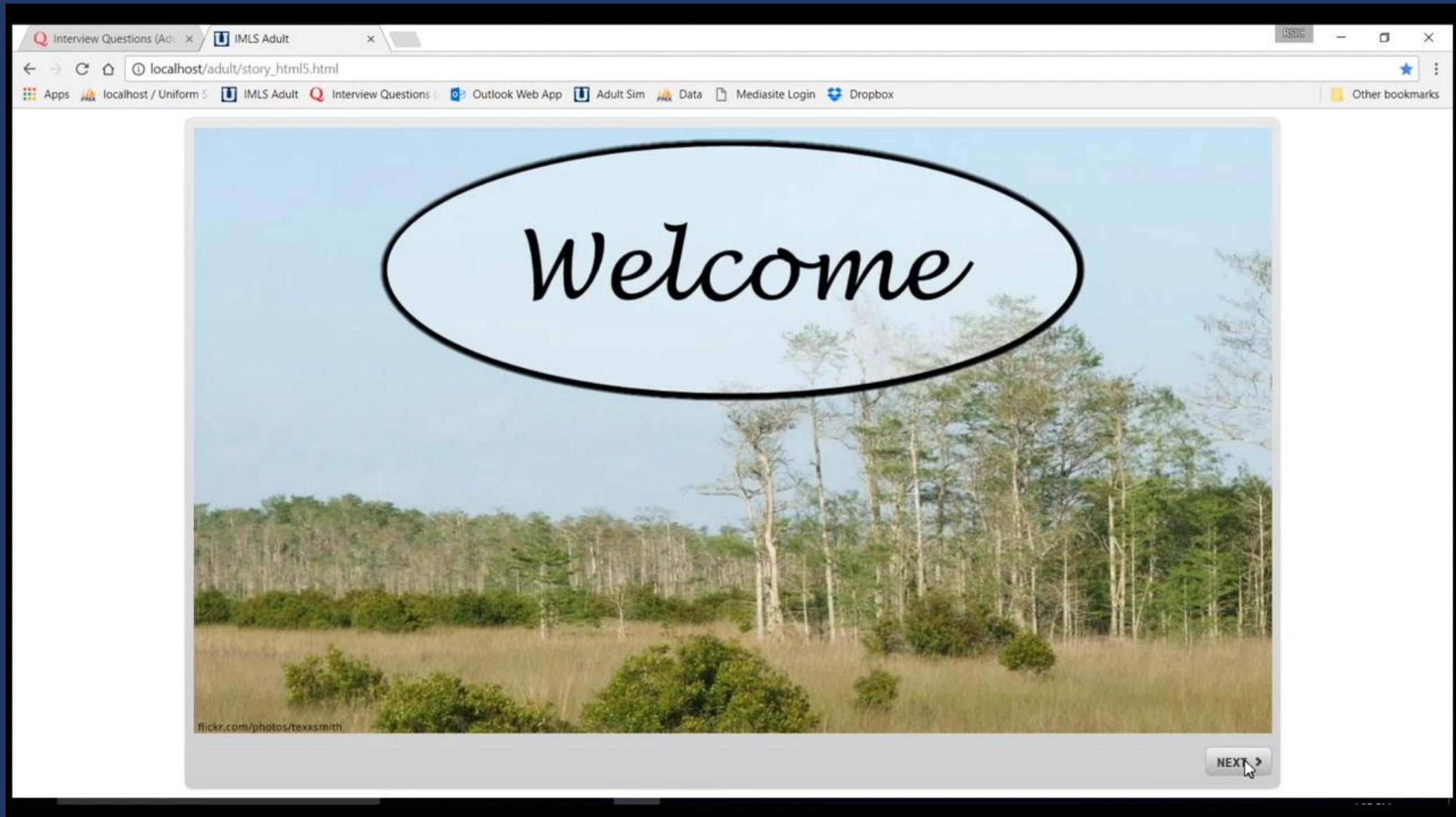**Participants**

- 4th – 5th grade

- 6th – 7th grade

- 9th – 12th grade

- Community college

- University undergraduate

- University graduate

(Cataldo et al., 2020)

The simulation

Four of the simulation tasks

HELPFUL?

CITABLE?

EVALUATE - Credibility

IDENTIFY - Container

Containers

"recognizable ways of collecting and presenting texts of particular genres"

(Brannon et al., 2021)

Created by Loïc Poivet
from Noun Project

Created by Alice Noir
from Noun Project

Created by Deemak Daksina
from Noun Project

Created by Oleksandr Panasovskyi
from Noun Project

Genres are…

"**typified rhetorical actions** based in **recurrent situations**"

(Miller, 1984, p. 159)
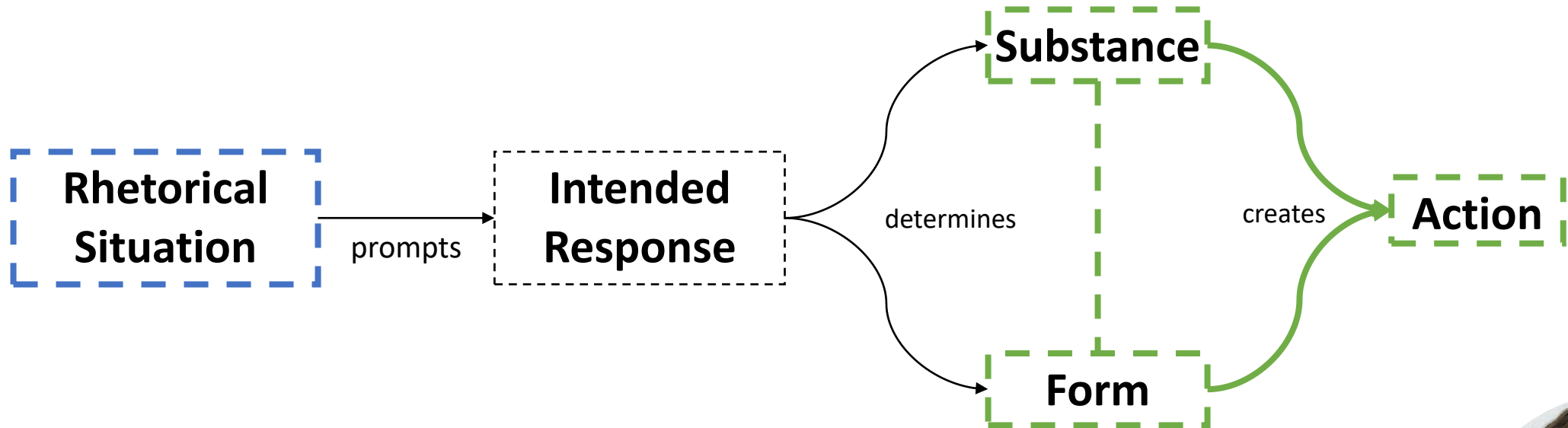
	Genres	**Containers**
Unit	Document or text	Publication
Rhetorical action	Singular	Compound
Organizing principle	Communicative act	Curation
Status	Complete	Complete?

RSIC formats

Containers

1. Blog
2. Book
3. Conference Proceeding
4. Journal
5. Magazine
6. News
7. Preprint
8. Website

Genres

- Article
- Chapter
- Post…

Modes

- Text
- Images
- Audio…

File types

- pdf
- mp4…

Finding #1

Do students care about the container of the information resources they use?

Importance of knowing the container

(Valenza et al., 2019)
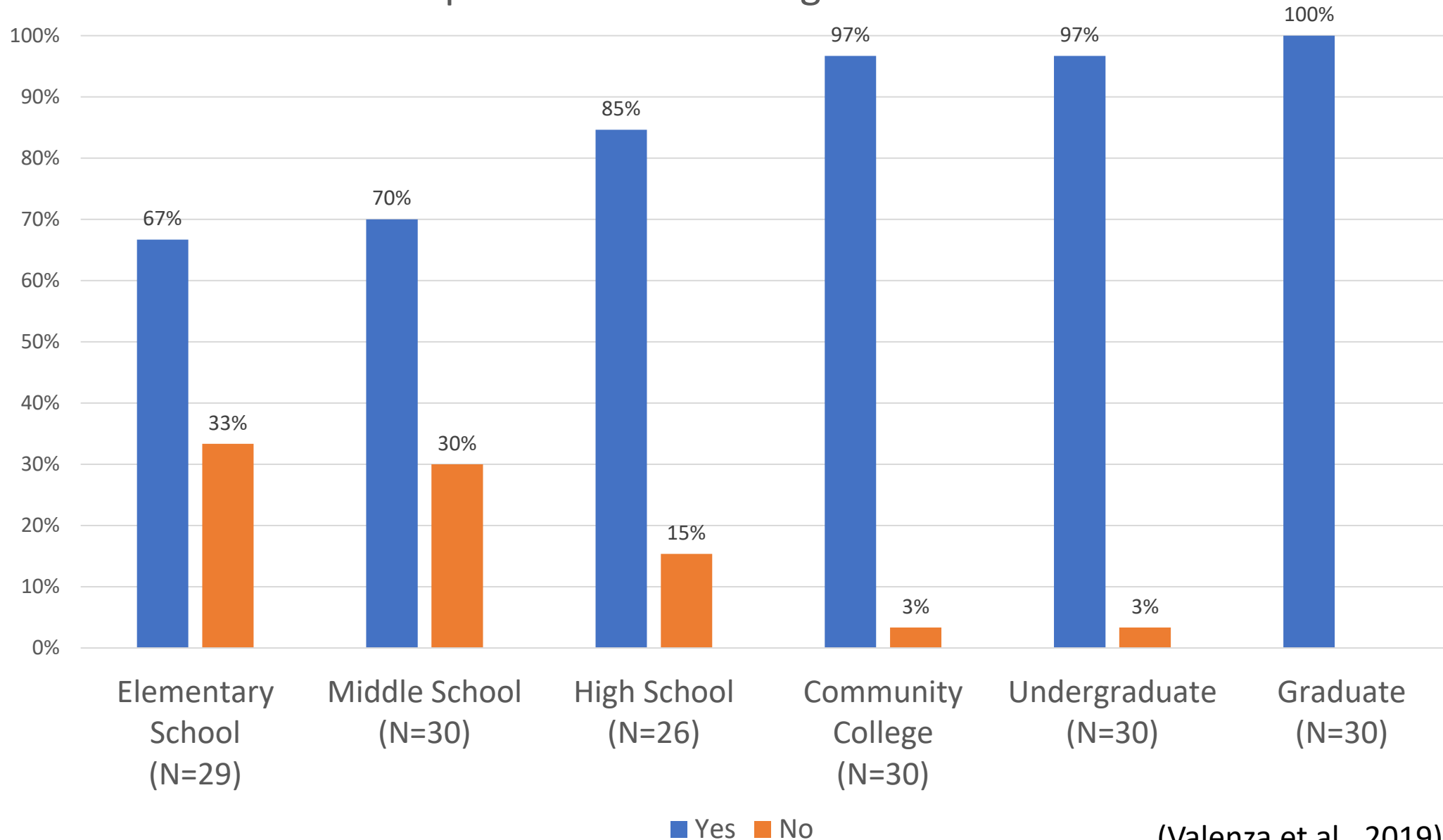
@RSICstudy   #containercollapse

Not *format agnostic*, but they are *format confused*

RSIC study: Percentage of containers identified correctly by student count (N=175)
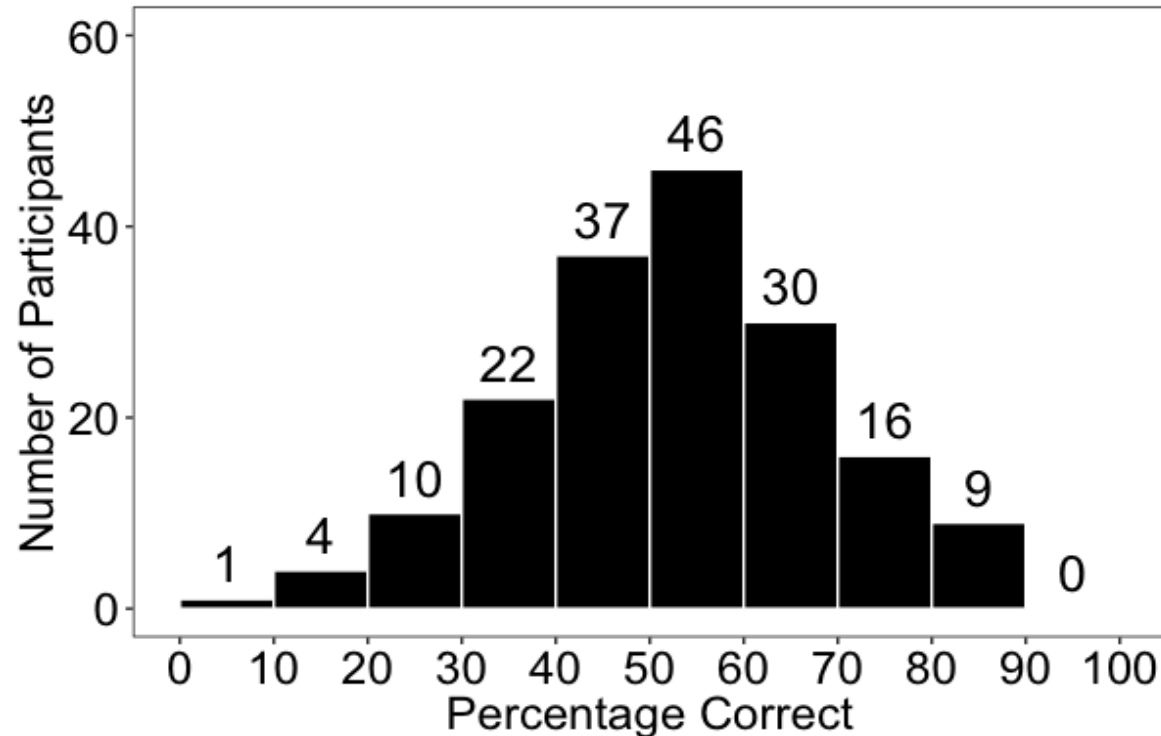
(Cyr et al., 2021)

Observations of Container Collapse

Students creating the wrong citations because they identified the container wrong

Students losing points on an assignment where references had to be journal articles but they misidentified other resources as journal articles

Original Article | 🔒 Full Access

Accruals, Investment, and Future Performance

Jenny Chu ✉

Figures   References   Related   Information

Chapter 2

Qualities of Research Scientists: Personality and Leadership Attributes of Research Team Members

A Guide to the Scientific Career: Virtues, Communication, Research and Academic Writing

Fred Bertino, Mohammadali M. Shoja

Book Editor(s): Mohammadali Shoja, Anastasia Arynchyna, Marios Loukas, Anthony V. D'Antoni, Sandra M. Buerger, Marion Karl, R. Shane Tubbs

Related

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Details

Chron

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Can exposure to nature alleviate pain, distress during chemotherapy?

By Andrea Leinfelder Updated 4:57 pm CDT, Tuesday, October 29, 2019

Chron

Local | US & World | Sports | Business | Entertainment | Life | Jobs | Ca

TRAVELER

The Finest Museums in The World vs. Nature

By Deborah Charnes on January 11, 2020 at 5:00 PM

Chicago's Museums – Masterpiece Playgrounds

Born and raised in Chicago, I felt I was a lucky child. Some of the greatest museums were on school field trip agendas. Plus, I fondly recall many outings downtown with my mom. We'd take the elevated train, and The Art Institute was just a few

https://**blog**.chron.com/traveler/2020/01/the-finest-museums-in-the-world-vs-nature/

2. Harrison's principles of internal medicine.

Published: New York : McGraw-Hill Education, [2018]

Summary: "Harrison's is intended for learners throughout their careers. For students,

📕 (eBook)

UF: Off-campus access limited to current UF students & employees

UF ONLINE See Link to Connect

📁 add   🖨 print   ✉ email   📱 txt   🌐➡ export
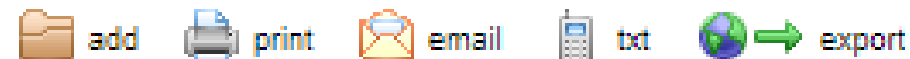
3. Harrison's principles of internal medicine.

Published: New York : McGraw-Hill, 1950-

Publishing History: 1st ed. (1950)-

📚 (journal)

Jacksonville UFHSCL Borland

UF HEALTH SCIENCE CENTER LIBR General Collection

Observations of Container Collapse

- Creating the wrong citations because they misidentified the container (Similar to STEM)

- Misidentifying Book Review container as journal article
  - Not understanding the place of book review in scholarship

- Misidentifying Book Chapter as journal article

Created by Vectors Point
From the Noun Project

1. 'It' and 'Olé' in 1930: The Structural Economy of Faulkner's Complex Words

By: Godden, Richard. pp. 100-109 *IN:* Matthews, John T.(ed. and introd.) William Faulkner in Context. Cambridge, England: Cambridge University Press; 2015. xv, 313 (book article)

Subjects: American literature; 1900-1999; Faulkner, William (1897-1962); As I Lay Dying (1930); **'Red Leaves'**; novel; Southern American novelists; short story; language; Marxist approach; Voloshinov, Valentin Nikolaevich (1895-1936)

CHECK ARTICLE AVAILABILITY

University of Pittsburgh | PittCat
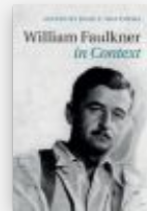
'It' and 'Olé' in 1930: The Structural Economy of Faulkner's Complex Words

Godden, Richard

ISBN: 9781107050372 (hardback) , 1107050375 (hardback)

William Faulkner in Context / , 2015, p.100

Available at Hillman Library General Collection (PS3511.A86 Z98569524 2015) >

TOP

SEND TO

GET IT

VIRTUAL BROW...

LINKS

Send to

| CITATION | EMAIL | ENDNOTE/ZOTER(| PRINT | PERMALINK |

Importance of knowing the container
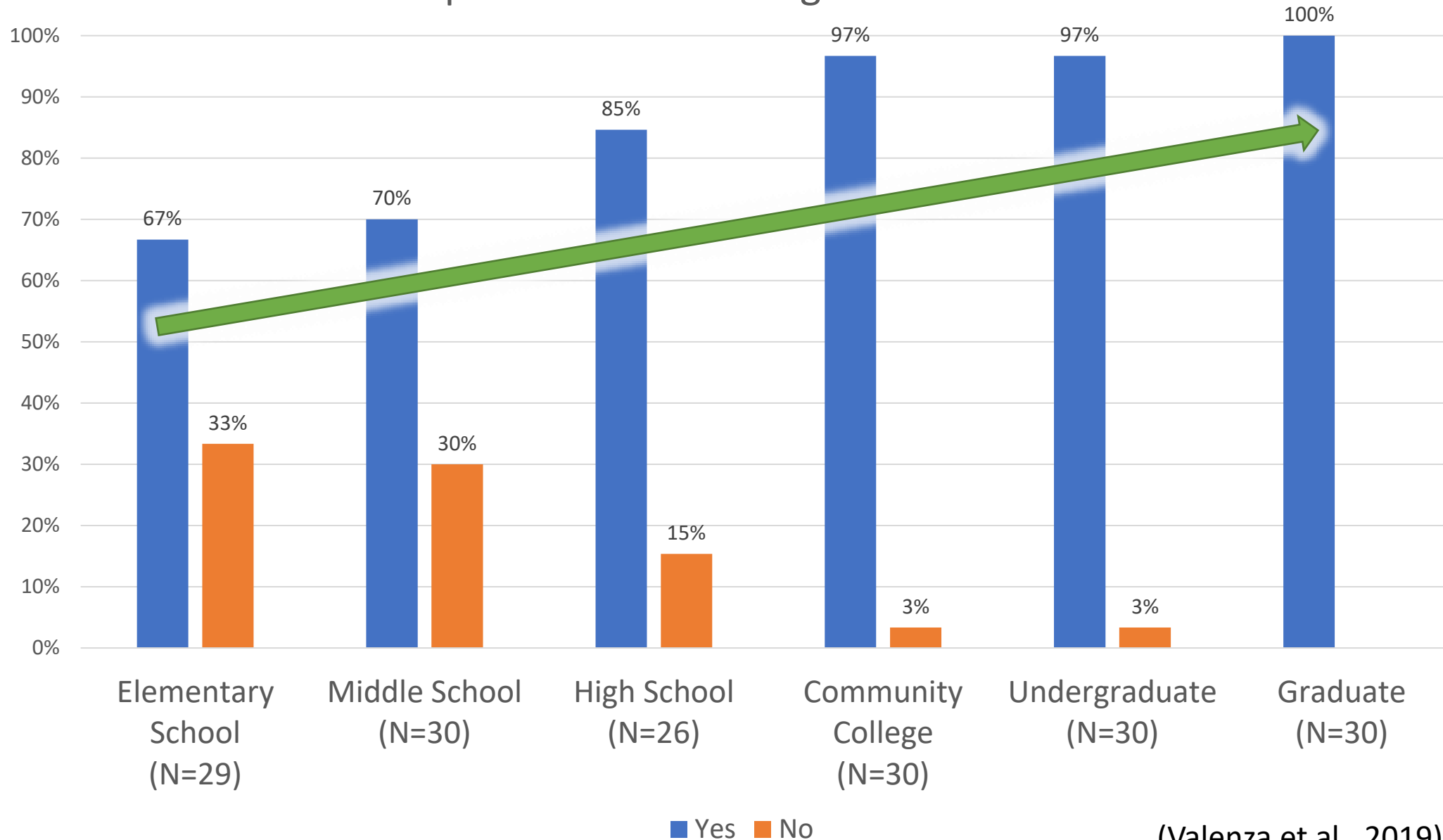
(Valenza et al., 2019)

How have you observed container collapse in your work?

I have never encountered this. — 13%

I encounter this when I work with our users. — 21%

I encounter this when I work with our systems. — 7%

I encounter this in both places. — 59%
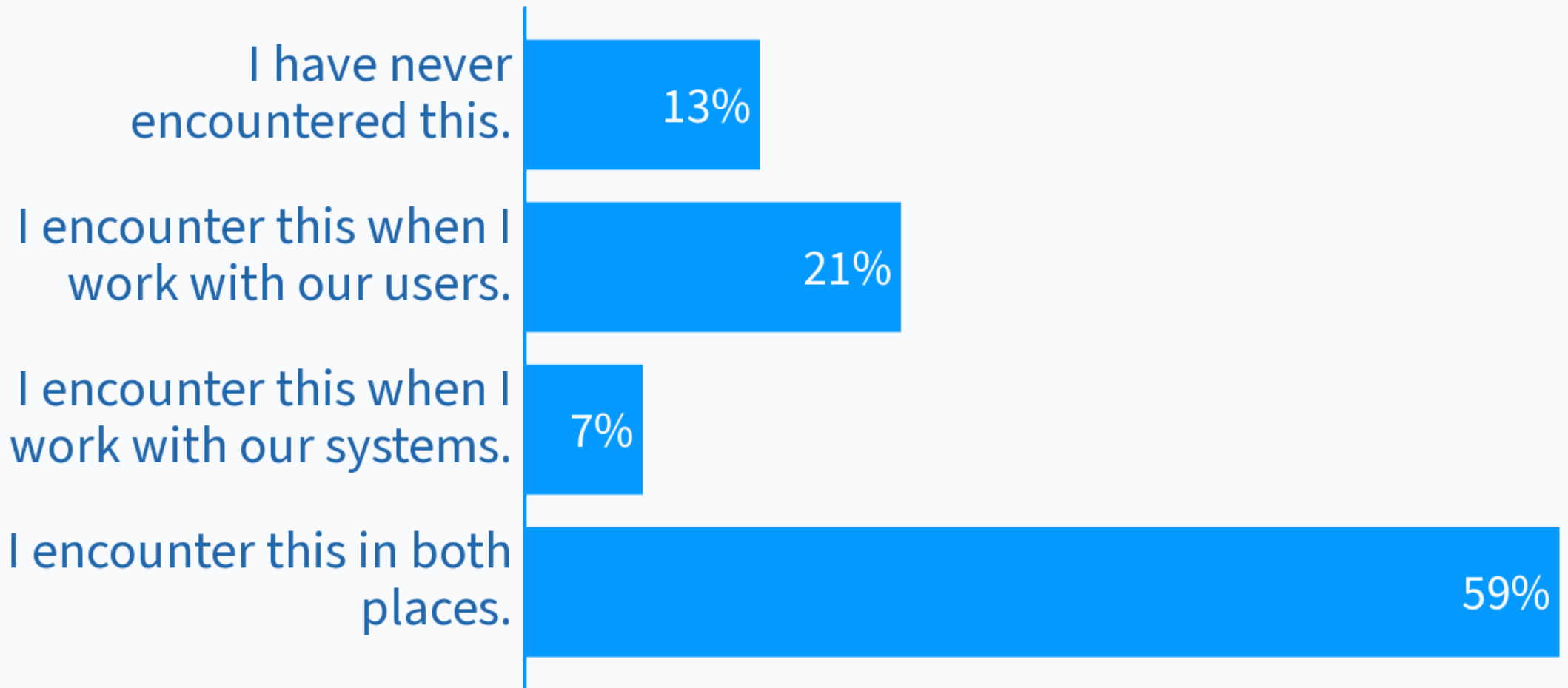
Finding #2

What makes students more and less successful at identifying containers?

Predicted change in percentage of containers correctly identified
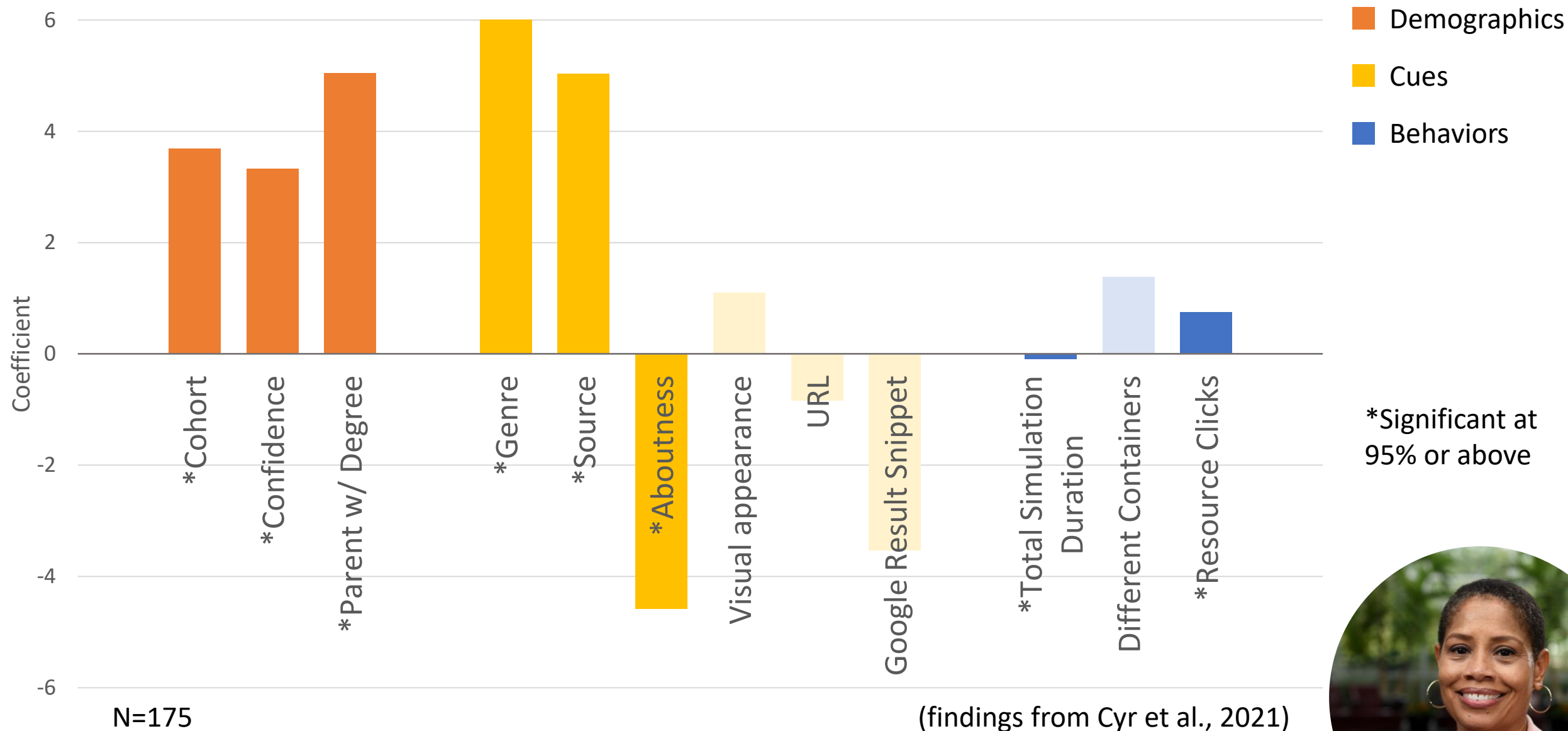
*Significant at 95% or above

N=175

(findings from Cyr et al., 2021)

@RSICstudy   #containercollapse

Predicted change in percentage of containers correctly identified

Coefficient axis: 6, 4, 2, 0, -2, -4, -6

Categories (x-axis): *Cohort, *Confidence, *Parent w/ Degree, *Genre, *Source, *Aboutness, Visual appearance, URL, Google Result Snippet, *Total Simulation Duration, Different Containers, *Resource Clicks

Legend: Demographics, Cues, Behaviors

*Significant at 95% or above

N=175

(findings from Cyr et al., 2021)

@RSICstudy   #containercollapse
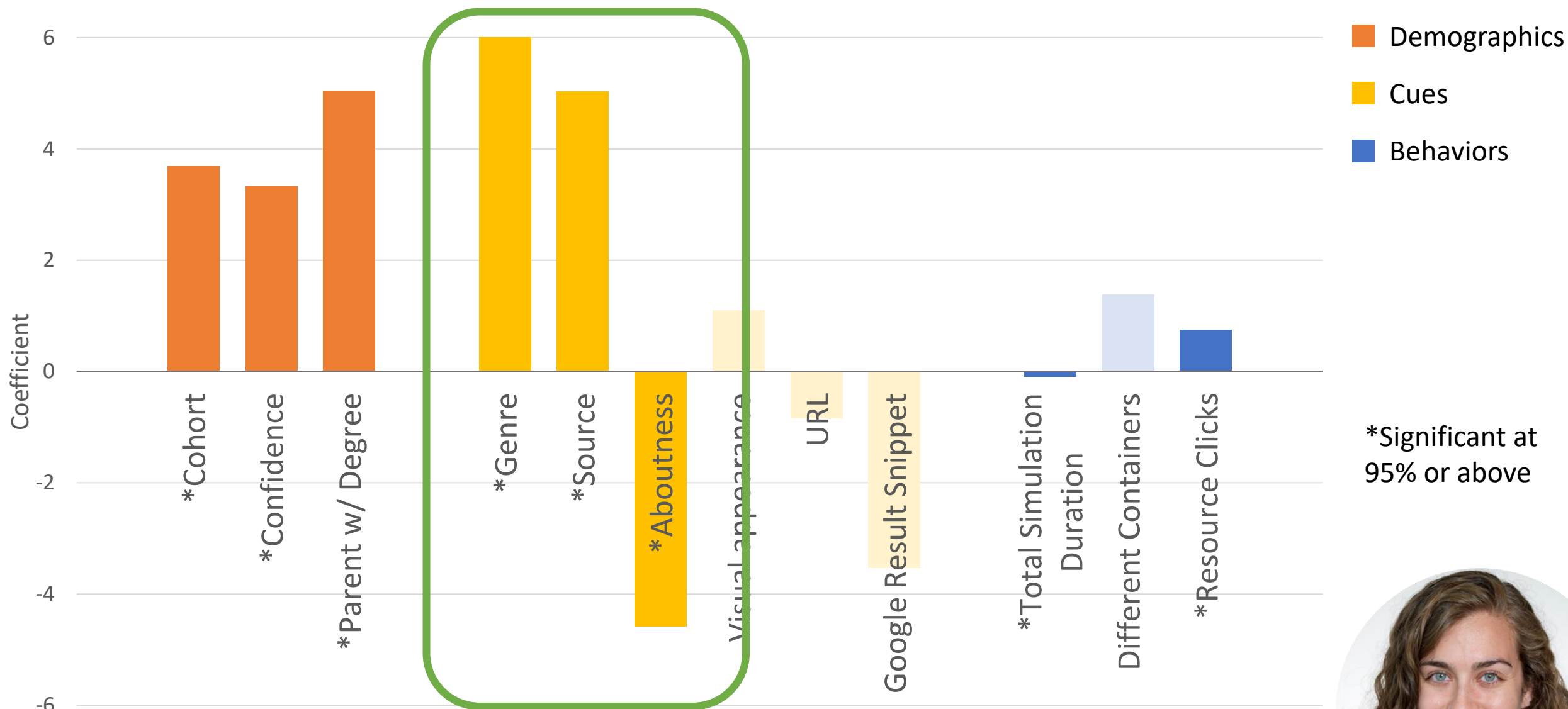
Genres are…

"**typified rhetorical actions**"

(Miller, 1984, p. 159)

Action

Aboutness   Substance — — — Form

Predicted change in percentage of containers correctly identified

N=175

(findings from Cyr et al., 2021)

*Significant at 95% or above

Legend:
- Demographics
- Cues
- Behaviors

X-axis categories: *Cohort, *Confidence, *Parent w/ Degree, *Genre, *Source, *Aboutness, Visual appearance, URL, Google Result Snippet, *Total Simulation Duration, Different Containers, *Resource Clicks

Y-axis: Coefficient (-6 to 6)

@RSICstudy   #containercollapse
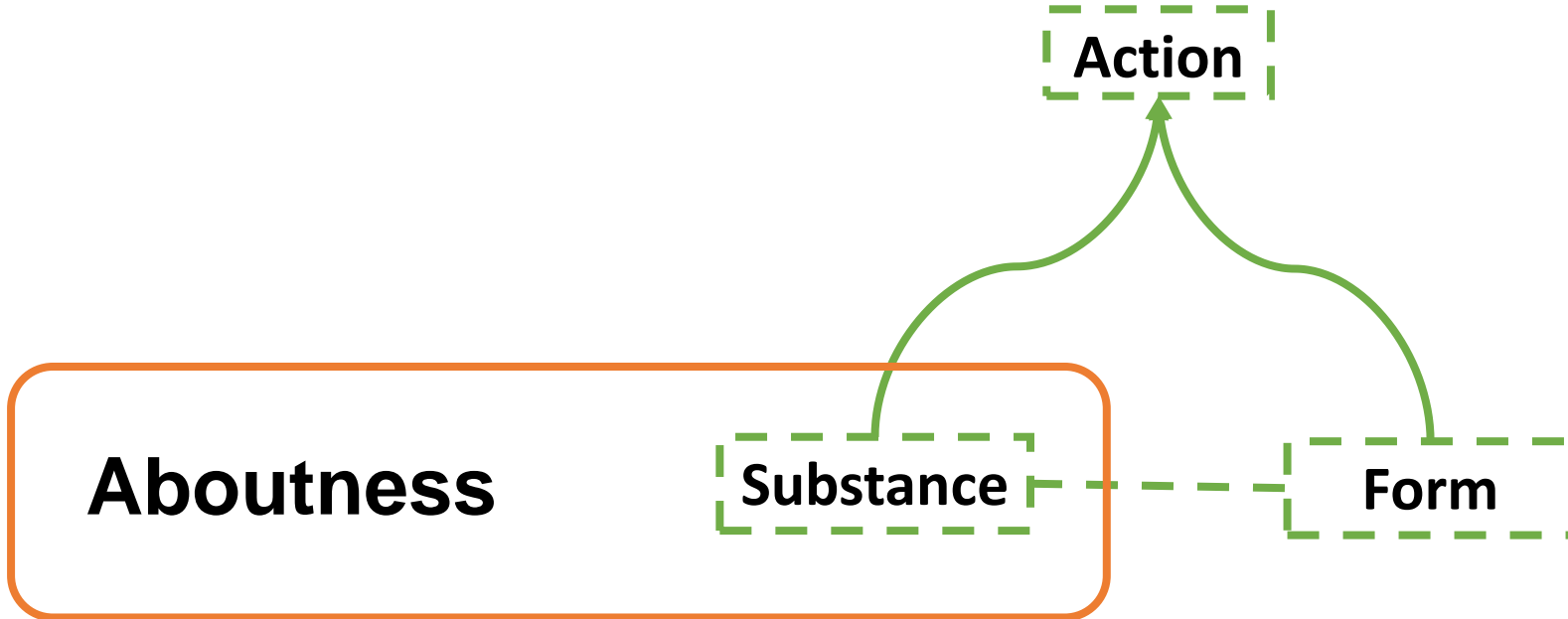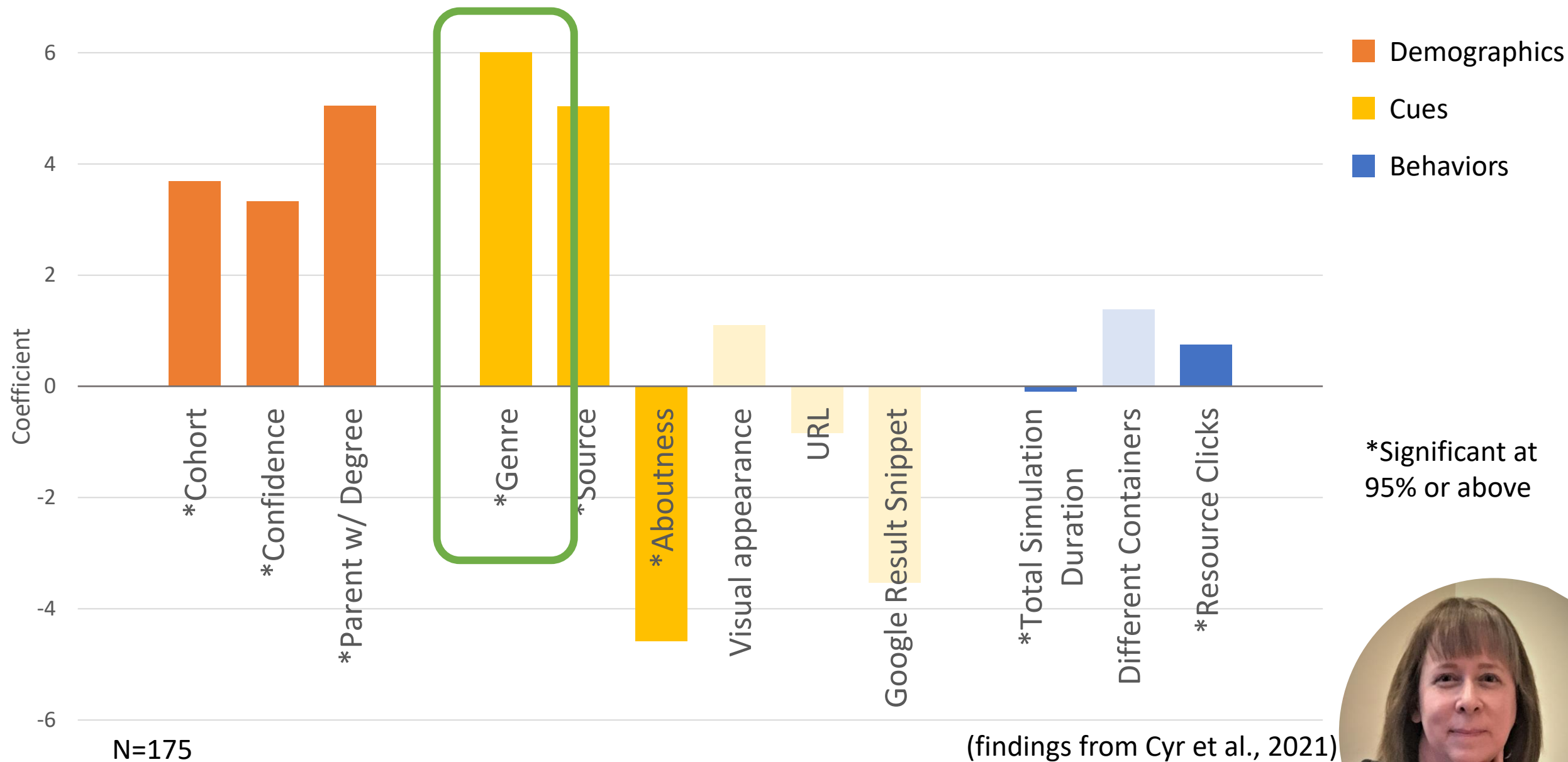
Citation management reference types

Refworks	EndNote Online	Mendeley	Zotero	Sciwheel	MS Word References	EasyBib
Artwork	Ancient text	Book	Audio Recording	Bill	Article in periodical	Bible
Audio	Artwork	Book Section	Bill	Book	Book	Blog
Bill/Resolution	Audiovisual Material	Case	Blog Post	Broadcast	Book section	Book
Book	Bill	Computer Program	Book	Conference paper	Case	Brochure
Book Section	Blog	Conference Proceedi	Book Section	Film	Conference proceedin	Cartoon
Book, Edited Collecti	Book	Encyclopedia Article	Case	Hearing	Document in web site	Chapter
Computer Program	Book section	Film	Conference Paper	Journal article	Electronic source	Conference
Court Case	Case	Generic	Dictionary Entry	Legal case	Film	Congress
Forum/Blog Discussi	Catalog	Hearing	Document	Legislation	Interview	Court Case
Generic	Chart or Table	Journal Article	E-mail	Magazine article	Journal article	Database
Hearing	Classical work	Magazine Article	Encyclopedia Article	Map	Miscellaneous	Dictionary
Journal Article	Compuer Program	Newspaper Article	Film	Newspaper article	Patent	Digital File
Law/Statute	Conference Paper	Patent	Forum Post	Patent	Performance	Digital Image
Magazine Article	Dataset	Report	Hearing	PDF	Report	Dissertation
Map	Dictionary	Statute	Instant Message	Personal communicati	Sound recording	Dissertation Abstract
Monograph	Discussion Forum	Television Broadcast	Interview	Presentation	Web site	Editorial
Music Score	Edited book	Thesis	Journal Article	Report		Email
Newspaper Article	Electronic Article	Web Page	Letter	Social media post		Encyclopedia
Patent	Electronic Book	Working Paper	Magazine Article	Software		Executive Order
Personal Communic-	Electronic Book Section		Manuscript	Thesis		Federal Bill
Report	Encyclopedia		Map	Webpage		Federal Report
Thesis	Equation		Newspaper Article			Federal Rule
Unpublished Materia	Figure		Patent			Federal Statue
Video	Film or Broadcast		Podcast			Federal Testimony
Web Page	Generic		Presentation			Film/ Online Video
	Government Document		Radio Broadcast			Government Publication
	Grant		Report			Interview
	Hearing		Software			Introduction
	Interview		Statute			Journal
	Journal article		Thesis			Lecture
	Legal Rule or Regulation		TV Broadcast			Letter
	Magazine Article		Video Recording			Magazine
	Manuscript					Mailing List
	Map					Manuscript
	Multimedia Application					Map
	Music					Microform
	Newspaper Article					Miscellaneous
	Online Database					Multivolume
	Online Multimedia					Music
	Pamphlet					Newsgroup
	Patent					Newsletter
	Personal Communication					Newspaper
	Podcast					Online Database
	Press Release					Painting
	Report					Pamphlet
	Serial					Patent
	Social Media					Performance
	Standard					Photo
	Statute					Press Release
	Television Episode					Raw Data
	Thesis					Report
	Unpublished work					Reprinted Work
	Web Page					Review
						Scholarly Project
						Software
						Thesis
						TV/Radio
						Website

Predicted change in percentage of containers correctly identified

*Significant at 95% or above

N=175

(findings from Cyr et al., 2021)

@RSICstudy   #containercollapse
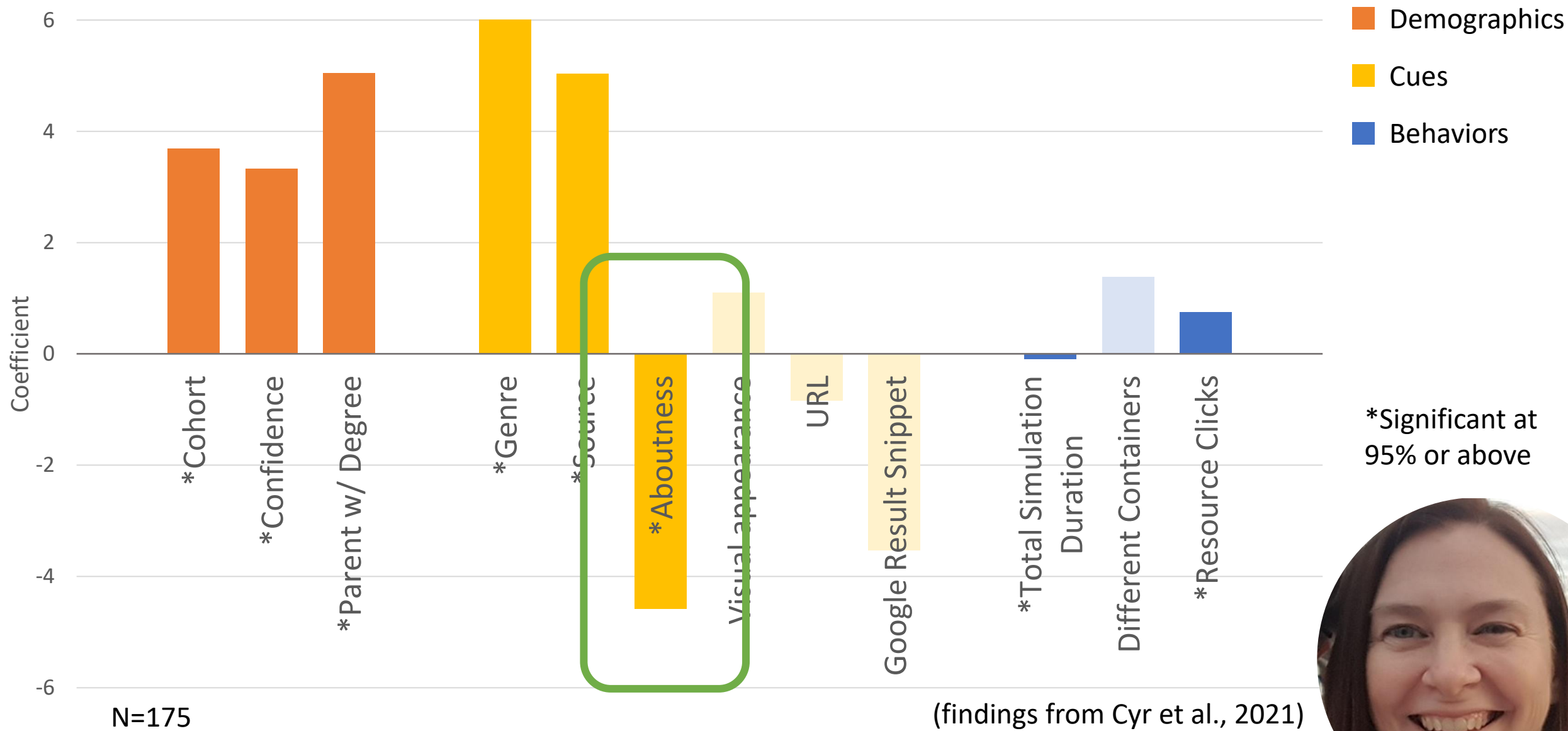
Aboutness and IL thresholds

- Aboutness is a negative predictor of correctly identifying a container
  - Discerning aboutness is the one of the hardest information literacy (IL) thresholds to pass.
  - Related to these ACRL Framework dispositions:
    - 'resist the tendency to equate format with the underlying creation process'
    - 'realize that information sources vary greatly in content and format and have varying relevance and value…'

Journal article fixation

- Fixation on finding only the journal article container
  - Commonly see students asking to find 'only journal articles'
  - Container is sometimes substituted for credibility analysis

Created by Eucalyp
From the Noun Project

Which of these findings is most surprising to you?

Predicted change in percentage of containers correctly identified

N=175   (findings from Cyr et al., 2021)

Legend: Demographics, Cues, Behaviors

*Significant at 95% or above
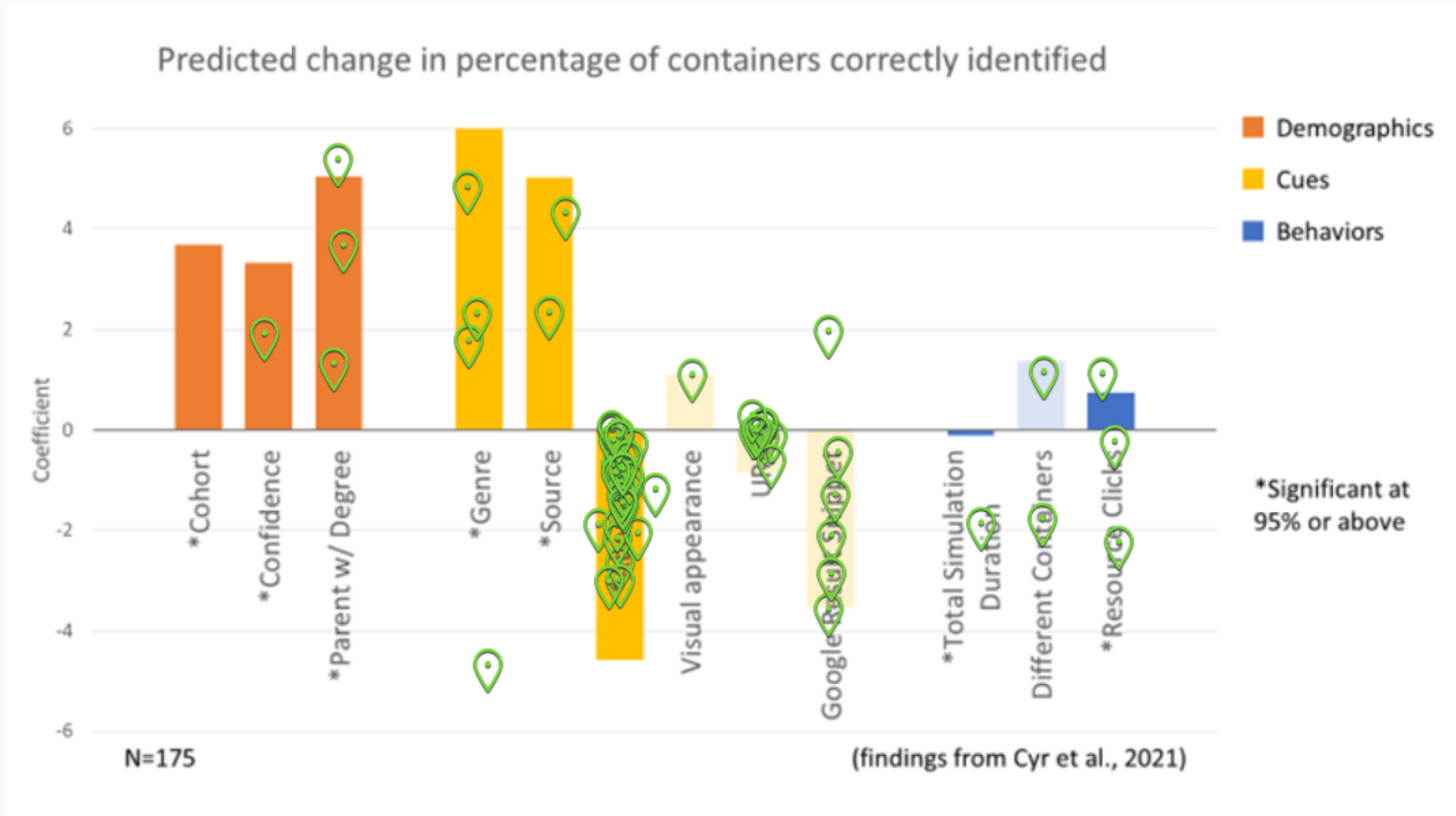
Finding #3

What container label did students use for an information resource in JStor?

Container labels applied to an article in the magazine *Science News* in JStor

	Blog	Book	Conference Proceeding	Journal	Magazine	News	Preprint	Website
High School (n=26)	0	2	0	7	4	9	0	4
Community College (n=30)	1	4	0	10	5	8	0	2
Undergraduate (n=30)	0	2	0	16	3	4	1	4
Graduate (n=30)	1	0	0	14	3	10	0	2
Total (n=116)	**2**	**8**	**0**	**47**	**15**	**31**	**1**	**12**

(Valenza et al., 2019)

Container labels applied to an article in the magazine *Science News* in JStor

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Graduate (n=30)	1	0	0	14	3	10	0	2
Total (n=116)	**2**	**8**	**0**	**47**	**15**	**31**	**1**	**12**

(Valenza et al., 2019)

JSTOR in the humanities

- JSTOR is commonly used in high schools; undergraduates are familiar with this resource

- Undergraduates consider it gold-standard credible in the humanities, no matter what the container is

- Undergraduates seem to assume content in JSTOR is in a journal container, even graduate students

Branding and source recognition

- JSTOR = journal
- Springer = journal
- Wiley = textbook
- Gale = K12
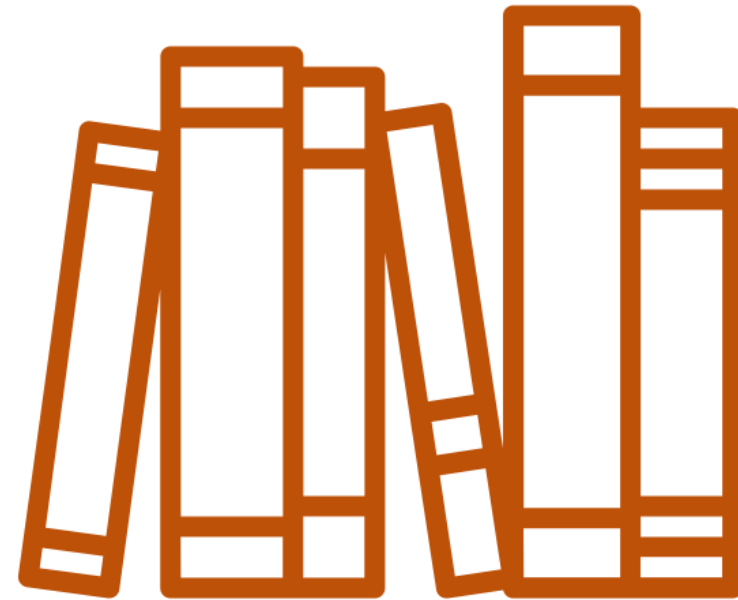
Created by iconnut
from Noun Project

Which cues do you find most misleading when trying to identify containers?

discovery) relevance webresource something worldcat trustworthy grouping terms tag (happens use content serials display pdf books bibliographic used icons/labels ranking sometimes service reviews cue layers patrons identifies genre search it" discovery primary structured criticism icon resource database discovery item systems textresource record page periodicals periodical items numbering vocabu music container journal peer web source digital particular "peeroften) reference because article periodical icons catalog/discovery icon/label website reserve results request google book title databases snippet opac review" (we reviewed type physical peer-reviewed information chapters graphic catalog functions lack even misidentified frbr-izes .want blog misleading bing full-text review resources bucket professional visual format

Finding #4

How does container affect helpfulness, citability, and credibility judgments?

High school to graduate school helpfulness and citability judgments
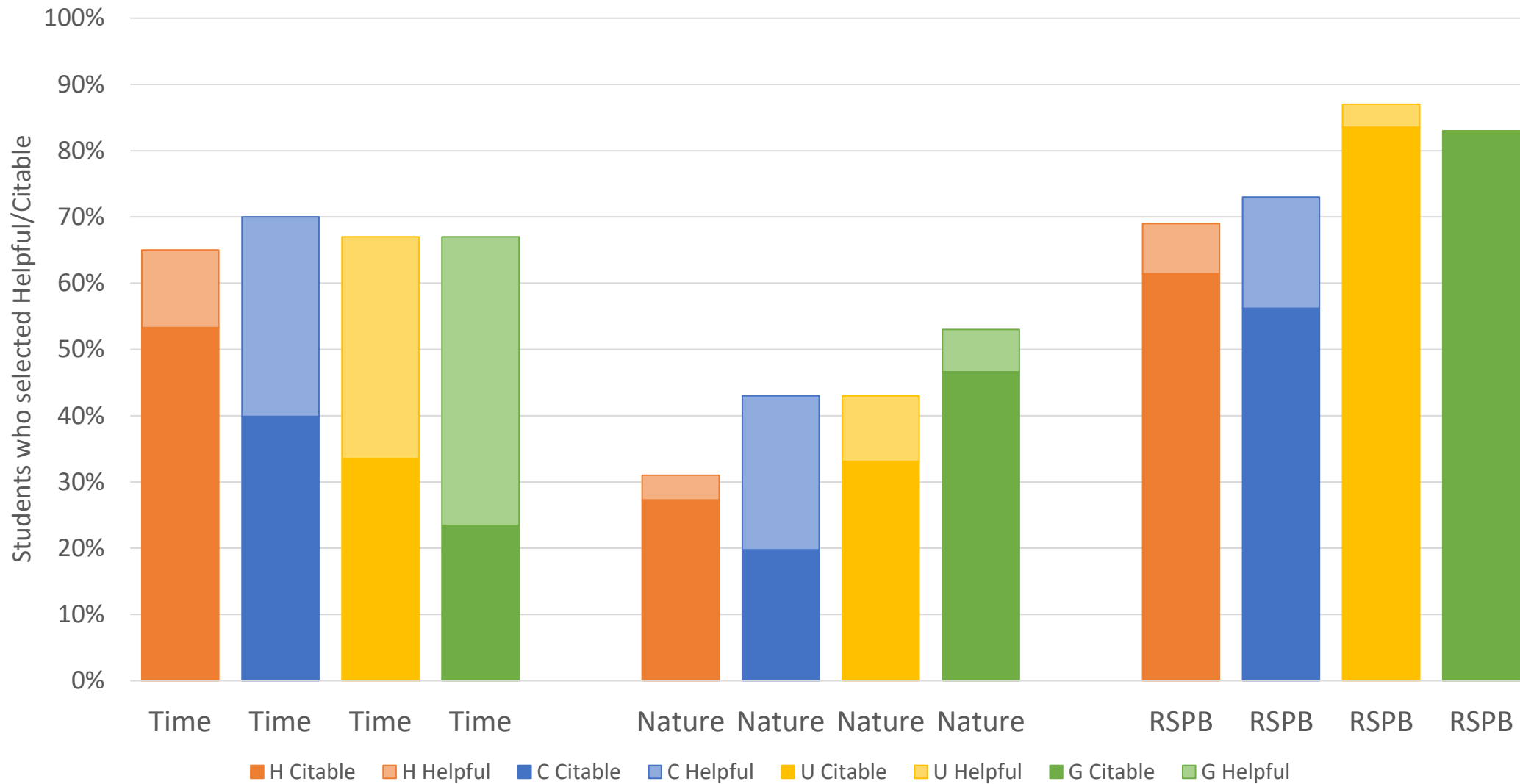
(findings from Buhler et al., 2019)

@RSICstudy   #containercollapse

High school to graduate school credibility judgments
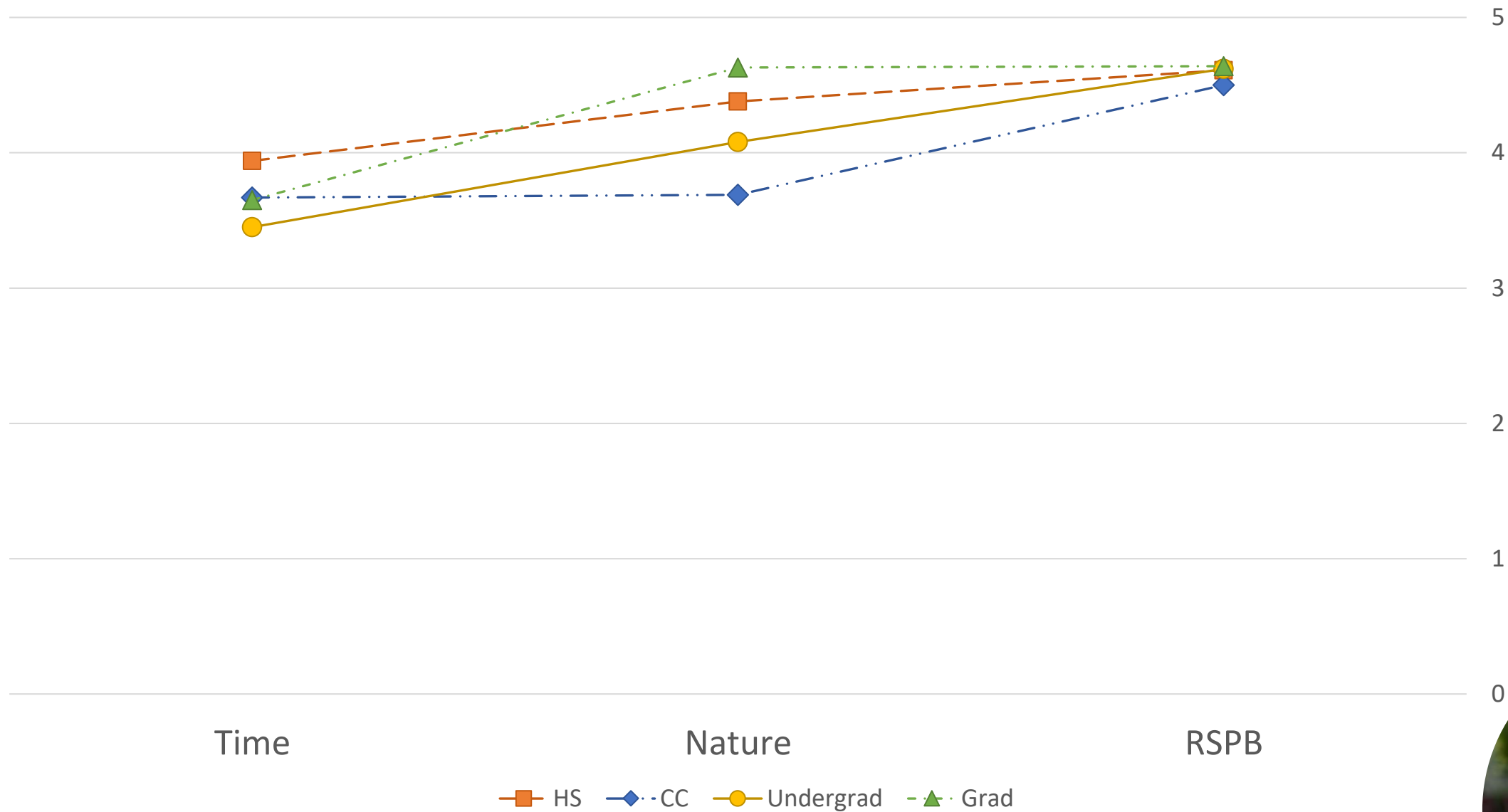
(findings from Buhler et al., 2019)

(data from Buhler et al., 2019)

High school to graduate school opinions of the same information in different containers and genres

(findings from Buhler et al., 2019)

@RSICstudy   #containercollapse

High School to Graduate School Helpfulness Judgments

Articles

Press Release

(findings from Buhler et al., 2019)

Students who selected Helpful/Citable

N=116

Time · Time · Time · Time · Nature · Nature · Nature · Nature · RSPB · RSPB · RSPB · RSPB

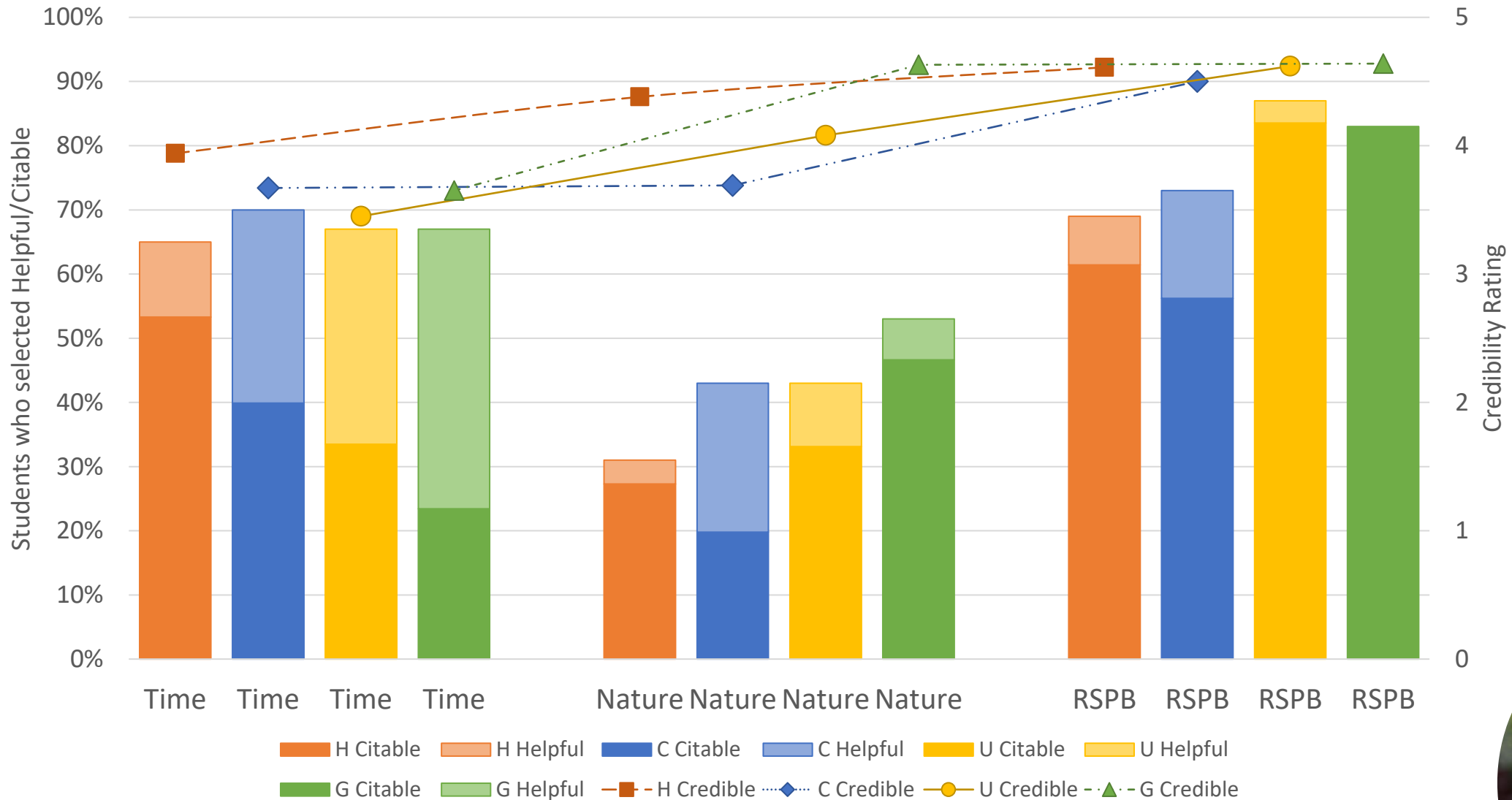■ H Helpful ■ C Helpful ■ U Helpful ■ G Helpful

@RSICstudy   #containercollapse

High school to graduate school helpfulness and citability judgments

(findings from Buhler et al., 2019)

N=116

@RSICstudy   #containercollapse

High school to graduate school credibility judgments

Magazine

Journals

Time   Nature   RSPB

HS   CC   Undergrad   Grad

N=116

(findings from Buhler et al., 2019)

High school to graduate school opinions of the same information in different containers and genres

(findings from Buhler et al., 2019)

N=116

@RSICstudy   #containercollapse
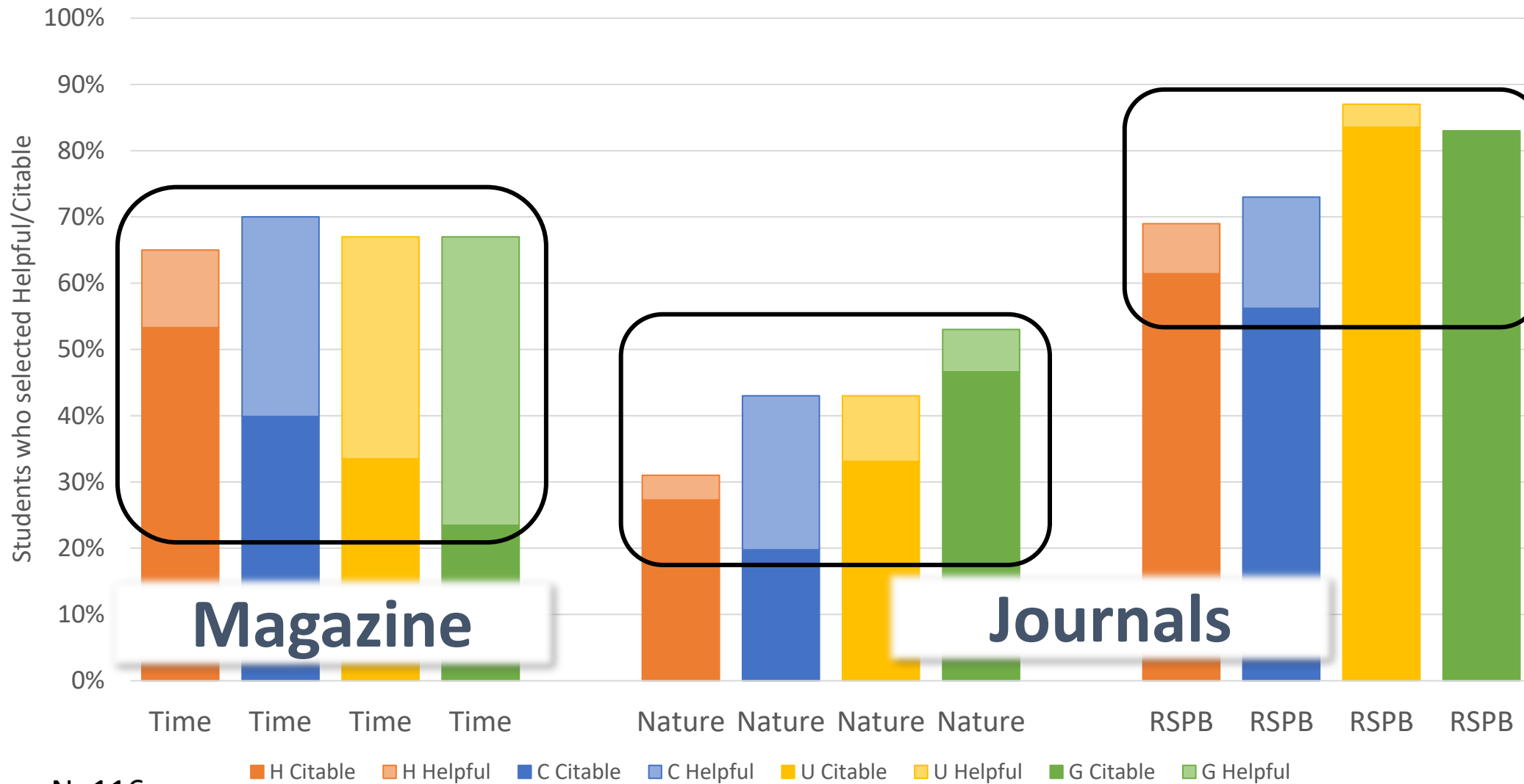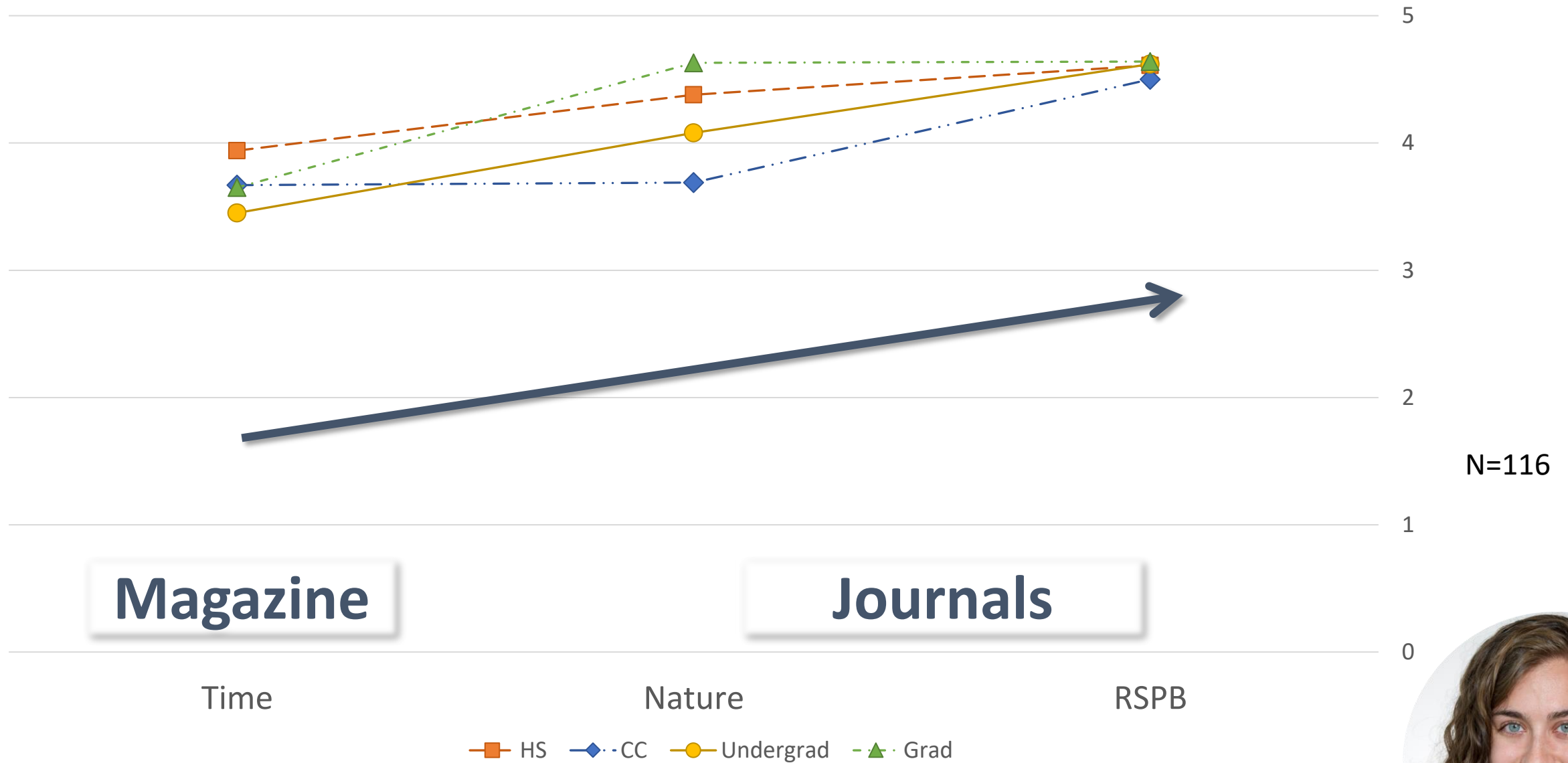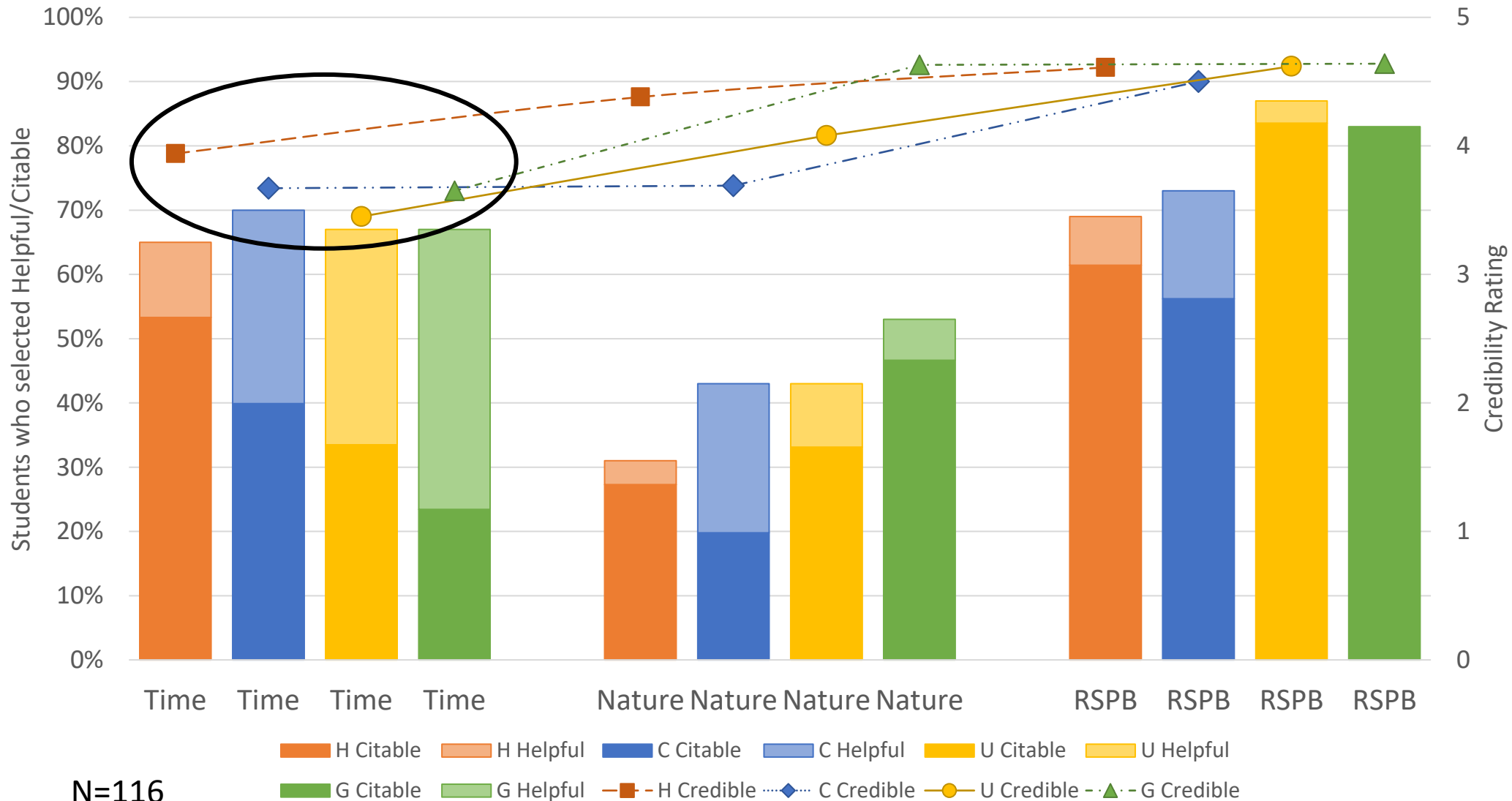
Container = credibility?

- Faculty desire for credibility in sources
  - Expressed as 'help students find credible sources'
  - Sometimes is focused on container as credibility
  - Incorporated into instruction in library resources
  - Quickly breaks down on the 'open' web

Created by Alex Bickov
From the Noun Project

Public dissemination of research

Created by Ragal Kartidev
From the Noun Project
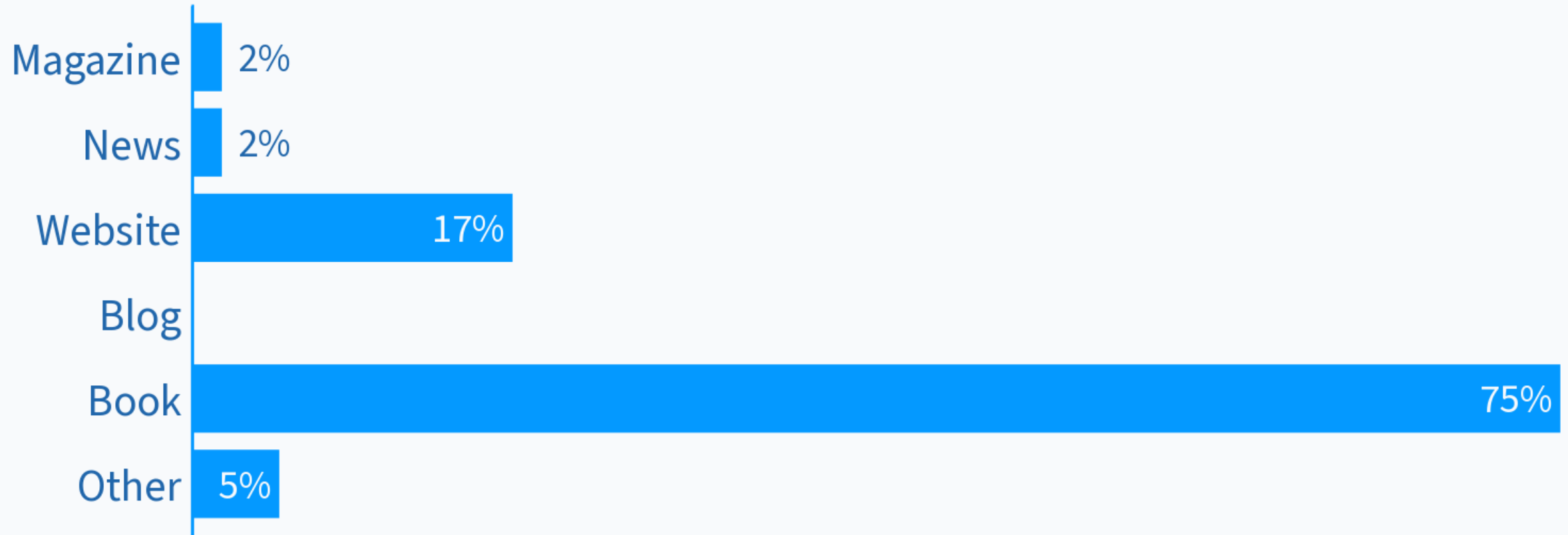
- Confusion around popular news synopsized from research
  - Complicated container confusion
  - Which to use and cite?

Other than scholarly journals, what is the most common container you send your users to for credible information?

Magazine ▊ 2%

News ▊ 2%

Website ▊▊▊▊▊ 17%

Blog

Book ▊▊▊▊▊▊▊▊▊▊▊▊▊▊▊▊▊▊▊▊▊▊▊ 75%

Other ▊ 5%

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Q&A

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