

# Building capacity for reproducible evidence synthesis: Training opportunities for librarians



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## Background

- Research has shown that when librarians collaborate with researchers on evidence syntheses, the quality and reproducibility improves.
- Librarians require specialized training on systematic reviews and related methods to effectively support this work but such training, specifically for reviews outside of medicine, is scarce.
- Evidence synthesis methods are also rapidly evolving to include a diversity of products, such as evidence and gap maps, and a range of automation and machine learning applications.
- We developed two discipline-agnostic training programs aimed at building capacity in librarians to support ES and emerging methods.

## Resources and Contact Information

- Evidence Synthesis Training: [guides.library.cornell.edu/evidence-synthesis/trainings](https://guides.library.cornell.edu/evidence-synthesis/trainings)
- Library Carpentry Introduction to R and litsearchr draft lesson: [ameliakallagher.github.io/lc-litsearchr/index.html](https://ameliakallagher.github.io/lc-litsearchr/index.html)
- *litsearchr* R package: [elizagrames.github.io/litsearchr/](https://elizagrames.github.io/litsearchr/)
- For information about the Evidence Synthesis training
- Kate Ghezzi-Kopel, [kwg37@cornell.edu](mailto:kwg37@cornell.edu)
- For information about the Library Carpentry Lesson
- Amelia Kallagher, [aak98@cornell.edu](mailto:aak98@cornell.edu)

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## Evidence Synthesis Beyond the Health Sciences: A Training for Librarians

This three-day training program was developed and taught by a team of nine systematic review librarians. Piloted virtually in August 2020, the program has now received funding to deliver twice-yearly training until 2023, including financial support for participant travel and lodging when in-person training resumes. The August workshop reached a diverse, international group of participants and covered the full range of skills.

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## Library Carpentry: Introduction to R and *litsearchr*

Library Carpentry (LC) is one arm of The Carpentries, an international data and computational skills training organization. We developed a new LC lesson that provides introductory training on R and RStudio using the *litsearchr* package. *litsearchr* is part of the metaverse R ecosystem, developed to support the synthesis of research from search strategy development through meta-analysis. *litsearchr* automates term harvesting, Boolean search development and search strategy testing.

## Pilot training by the numbers

187

**Applications** received for the two trainings

62

**Participants** across the two trainings

53

**Institutions** represented among participants

6

**Countries** represented among participants

**Participants came from a range of disciplines**

Health sciences  
Agriculture  
Environmental Science  
Engineering  
Psychology  
Business  
Education  
Social Work

## Future Directions

- With grant support from the Institute of Museum and Library Services, conduct 6 evidence synthesis trainings for at least 120 librarians over three years
- Develop online training materials and resources
- Continue process of piloting and improving Library Carpentry lesson with the aim of adding to the stable extended curriculum