

Evidence Synthesis Institute Canada 2024: Librarians Advancing Interdisciplinary Research

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Abstract

Evidence Synthesis Institute (ESI) Canada hosted its annual event virtually from March 18-21, 2024, offering an in-depth training opportunity on evidence synthesis (ES) methods. This report outlines and contextualizes the goals and objectives of the workshop, with reflections from the perspective of an attendee. The intensive four-day workshop, conducted in partnership between the Canadian Association of Research Libraries (CARL) and the University of Victoria Libraries, aimed to enhance librarians' capabilities in supporting systematic reviews and other ES projects across various academic disciplines. Originally inspired by a U.S. model and first piloted in 2022, the event focused on equipping participants with the foundational knowledge needed to apply rigorous, systematic, transparent, and reproducible techniques for literature synthesis crucial for producing high-quality research outputs with reduced biases. The curriculum included topics covering the full lifecycle of an ES review, and sessions were designed to provide both foundational ES knowledge and practical application strategies to integrate the training into participants' professional roles. The workshop facilitated a collaborative and supportive environment, enabling participants to network with peers and experts, fostering a national community of practice. By preparing librarians to undertake more substantive roles in ES research, including as co-investigators, ESI Canada significantly contributes to skillset development, addressing increasing demand in this area. This workshop is particularly invaluable for early career librarians and those involved in interdisciplinary research support, furthering a precedent for effective ES training that is likely to influence future academic library services.

Keywords: Evidence Synthesis; knowledge synthesis; review methods; academic librarianship; professional development; interdisciplinary research; training workshops; Canada

The Evidence Synthesis Institute (ESI) Canada (Canadian Association of Research Libraries, 2024), modeled after a U.S. counterpart funded by the

Institute of Museum and Library Services (IMLS) (University of Minnesota Libraries, n.d.), was initially piloted in 2022 and has since been offered annually in a virtual format. The intensive four-day event, hosted this year from March 18-21, was supported by a partnership between the Canadian Association of Research Libraries (CARL) and the University of Victoria Libraries, offering the program free of cost and limiting participation to 50 attendees.

Evidence synthesis (ES), also commonly referred to as knowledge synthesis, represents a range of research methodologies and review publication types where advanced skills in information retrieval and citation management practices play a particularly crucial role in producing a high-quality research output. Broadly, ES has been described as a process that “uses formal explicit rigorous methods to bring together the findings of studies already completed and to provide an account of the totality of what is known from that pre-existing research” (Gough et al., 2020, p. 1). While health sciences librarians and informationists have long had occasion to develop in-depth knowledge and skills related to ES methodologies—particularly to support systematic reviews, which have been a common publication type in biomedical research for some time—this skillset has had less historical prominence in other disciplines.

In recent years, however, ES methods have transcended their traditional domain within the health sciences and are now more broadly applied in other subject areas. As ES review types, which include systematic reviews, scoping reviews, meta-analyses, and others (see the highly cited Grant & Booth, 2009, for a more comprehensive explanation of review typology) grow in popularity both within the health sciences and across various disciplines, academic libraries are seeing a corresponding increase in demand for librarian support with various stages of the research process. This expanding need has led some institutions to think carefully about creating sustainable strategies to meet demand; Campbell and Dorgan (2015) and Kallaher et al. (2020), for example, describe the development and implementation of systematic review services offered by the John W. Scott Health Sciences Library at the University of Alberta and Cornell University Library, respectively. While this is, in one sense, an encouraging trend—research teams that include librarians as co-authors have been shown to produce reviews that have better quality search strategies (Rethlefsen et al., 2015) and

a lower risk of bias (Aamodt et al., 2019)—it may also pose challenges, including an increase in specialized training needs and both developing and sustaining the institutional capacity to meet service demand.

ESI Canada, then, provides a valuable and timely training opportunity for librarians involved in interdisciplinary research support to further develop these skills and expand their professional networks. The [four-day curriculum](#) includes fourteen discrete modules that cover both hard and soft skills, with a range of supporting resources and tools shared along the way. Module coverage includes an overview of systematic reviews and similar methodologies; ES method reproducibility and transparency; steps involved in an ES review; relevant guidelines, checklists, and reporting standards; research question formulation; frameworks and eligibility criteria; search strategy development and database translation; software tool recommendations; grey literature searching; quality assessment techniques; data management; information about systematic review services in libraries; and, valuably, the role of librarians as co-investigators along with tips for working with research teams that will help to ensure the process goes smoothly for everyone. Since there can be considerable variability in librarian involvement throughout an ES research process, it is particularly important to develop an understanding of how to engage in conversations with research teams to ensure that roles and expectations are as clear as possible from the outset. Learning from the experiences of sessions leads who have considerable expertise with this process goes a long way, especially for early career librarians who may feel less secure in their ability to understand and navigate faculty/researcher relationships and institutional hierarchies. ESI applicants are asked to articulate the relevance of this training to their professional development and identify practical applications of the acquired skills within their work environments and communities of practice. The goal of the sessions is ultimately to better prepare librarians to meet the increasing demands of their current or potential position-related roles and responsibilities in supporting systematic searching and the broader lifespan of ES projects.

The ESI Canada initiative, characterized by its highly knowledgeable instructors and well-structured content, offers librarians the chance to deepen their understanding

of ES alongside peers across the country in a collegial and respectful learning environment. Participants benefit from engaging directly with experts who generously share insights and practical advice supported by anecdotes and examples from their own careers, and opportunities to debrief at the end of each day with peers in smaller groups. The foundational knowledge and expertise shared at this event is likely to not only improve individual professional practice but may also serve as a reference point to inform the development of more formalized ES services at participants' respective institutions, many of which are in flux as service demands continue to rise.

Personal Reflections on Attending ESI Canada 2024

Like many early career librarians, my entry into librarianship has involved a series of limited-term contract roles. Though precarious, this varied experience has also afforded me a silver lining of opportunities to develop an expanding toolkit in different areas of librarianship. Initially working as a library technician within a science and engineering library for several years, my career has evolved through short-term positions including social sciences and humanities librarian and graduate studies librarian contracts, culminating recently in my current role as a health sciences librarian. This position provided the impetus for diving quickly and deeply into advanced searching in health sciences, a skillset required to be successful in my core role responsibilities. With the guidance of experienced colleagues mentoring my early participation on research teams conducting systematic and scoping reviews, I have been fortunate to gain hands-on experience with 'real-life' ES projects, which spurred an interest in continuing to grow this area of expertise.

With an educational background in the social sciences and now research support experience across a broad variety of subjects, enhancing my proficiency with interdisciplinary research skills has also emerged as a professional interest. Such research often demands nuanced understanding of disciplinary variations in resources and methodologies, from identifying appropriate guidelines and protocol registration platforms, to the identification and strategic selection of databases and effective integration of grey literature, where source type utility and prominence can vary greatly between disciplines. There is a lot to know, simply put, and a need to support one

another through this continuous learning process. Participating in the ESI Canada workshop, which was fast-paced and densely packed with information, underscored the complexity and potentially overwhelming nature of these topics, especially for informational professionals less acquainted with them. In recognition of this reality, the instruction team also identifies and provides ways to connect with peers in the field, including automatic membership on an ESI Canada alumni listserv, emphasizing that this work does not need to be conducted in a silo. Workshop materials are, thankfully, openly accessible post-session to both participants and anyone interested in viewing their content, published via Pressbooks (Evidence Synthesis Institute Canada, 2024), which will go a long way in supporting ongoing learning and development.

Post-workshop collaboration with colleagues and fellow workshop attendees from my institution has become a significant outcome of this experience. Taking heart of the implicit encouragement to be purposeful about building ES capacity within our institutional and professional communities, we implemented an action plan that includes undertaking reciprocal peer review of electronic search strategies (PRESS) to strengthen our respective contributions to research teams, and the development of an educational session aimed at supporting the effective integration of ES methods into academic curricula. This session was designed both to reinforce our own learning and to share techniques, recommendations, and information about library services available to those involved in ES-related research and educational roles at our institution. The goal was to support the effective integration of ES-related assignments and learning activities into courses with substantial focus on research methods. Additionally, we have initiated our own interdisciplinary scoping review project on a topic of shared interest and have regularly referred back to our ESI Canada training for guidance as we begin working our way through the process.

ESI Canada workshop's design, which included pre-class reading and assignments integrated with live session module content, made for a coherent and interactive educational experience that was accommodating of variations in learning preferences and cognitive load. Each of the four half-day sessions was divided into shorter modules, most of which were 15-30 minutes in length, with a rotation of session leads for each module. Though the facilitators were mindful of time to keep on schedule,

session leads worked together to respond to participant questions as they arose both verbally and via chat. Participants were placed into small disciplinary cohorts, which met at the end of each day for debrief-style discussions. Though guiding questions were provided, these discussions were also a valuable opportunity to go 'off-script', exploring other questions or related topics of interest, and to get to know other participants a little better throughout the week. The final day of the workshop broke from the previous format, introducing a 'choose your own adventure' style of breakout room sessions that allowed participants to select a room based by topic from a list of options. The last grouping of breakout rooms, for example, included facilitated discussions on teaching evidence synthesis to learners, searching for pre-prints as part of evidence synthesis, starting an ES/systematic review service, or incorporating French-language sources into a systematic review. These diverging paths allowed participants to shore up their understanding in different areas and select those most relevant to their interests, experience, and responsibilities.

The ESI Canada workshop's online format addresses broader accessibility, allowing participation from across Canada and providing a sustainable and economical training option. However, there is also a recognized value in face-to-face interactions. The University of Michigan Library's hybrid approach to their [systematic review workshops for librarians](#) serves as a relevant example. Since in-person and virtual learning modalities each have potential benefits and drawbacks, and personal preferences may vary (Chan et al., 2021; Lee et al., 2022; Mulvihill & Martin, 2023), alternating between online and in-person formats could enhance the learning and relationship-building experience for some participants. Perhaps future ESI Canada offerings might benefit from incorporating in-person elements if feasible, especially as the demand for skilled interdisciplinary research support from librarians continues to increase.

Irrespective of delivery format, ESI Canada is a highly valuable training opportunity that may be of particular interest to early career librarians and those with a role or professional interests in conducting or supporting interdisciplinary research and evidence synthesis methodologies. The [ESI Canada planning team and facilitators](#) should be recognized and commended for their knowledgeable, equitable, team-based

approach to designing and delivering both a high-quality workshop and associated open access resource, which will undoubtedly continue to benefit library and information professionals engaged in evidence synthesis projects across Canada for years to come.

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