

# Keeping Research Current: Using Living Literature Reviews in Educational Research

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## Abstract

Our previous systematic literature review on academic coaching interventions (Campbell & Mogashana, 2024) highlighted key features of effective approaches for undergraduate students but also revealed the challenge of keeping research syntheses up to date. Living literature reviews (LLRs) offer a solution by providing a continuously updated synthesis of new evidence. In this paper, we examine whether LLR methodologies can be effectively applied to academic coaching research, particularly when incorporating qualitative studies. We begin with an overview of systematic reviews and their limitations before introducing the LLR approach and its potential benefits for educational research. We then outline the methodological steps required to transition from a static systematic review to a dynamic LLR, detailing search strategies, inclusion criteria, and data management techniques. Implementation challenges—such as workload, methodological consistency, and publication concerns—are discussed alongside practical workarounds. Finally, we explore the role of AI tools in automating aspects of LLRs, including data extraction, citation tracking, and workflow optimization. By addressing these considerations, we aim to provide researchers with a roadmap for integrating LLR methodologies into education research, ensuring that evidence remains current, transparent, and accessible.

**Keywords:** Academic coaching, Living literature review, Undergraduate student success, Engineering education, AI in research.

## 1 Introduction

Systematic literature reviews (SLRs) help decision-makers by providing a comprehensive and structured analysis of existing research within a field. By identifying patterns, gaps, and key findings across multiple studies, SLRs inform both academic inquiry and practical applications. However, traditional SLRs have limitations, particularly in rapidly evolving research areas where new studies emerge frequently. To address this challenge, living literature reviews (LLRs) have been introduced as a dynamic alternative that allows for frequent updates of findings (Elliott et al., 2014).

### 1.1 Context of Our Study

Academic coaching has become a widely recognized intervention in higher education, supporting student success, retention, and well-being. In our initial systematic literature review (Campbell & Mogashana, 2024), we analysed 643 studies and identified 25 key articles that provided valuable insights into effective coaching interventions for undergraduate students. The findings highlighted that the most impactful programs lasted

at least 12 hours over four weeks, were preferably conducted in person, and were most effective when facilitated by professional coaches.

Eager to explore how the field had evolved in the 20 months since our first review—which covered journal publications from 2010 to May 2023—we conducted a follow-up review. To our surprise, we identified 466 new studies, with 15 meeting our inclusion criteria. The unexpectedly high number of publications led us to question whether a more dynamic, ongoing approach to literature synthesis could better capture emerging insights.

Our introduction to the LLR methodology offered a compelling solution. By transitioning to an LLR, we aim to ensure that research on academic coaching remains current and actionable, providing universities with up-to-date, evidence-based support mechanisms to promote student thriving.

## 1.2 Research Focus

Our initial SLR provided a foundational understanding of academic coaching interventions, but as the field progresses, new questions arise regarding the applicability and sustainability of these findings. This paper aims to explore whether and how the LLR methodology can be applied to research on education-related interventions, particularly qualitative and mixed-methods studies. Specifically, we investigate:

1. How do the methodological and practical differences between LLRs and SLRs influence their use in educational research?
2. What frameworks and guidelines currently exist for conducting Living Literature Reviews?
3. What methodological and technological adaptations are required to transition from an SLR to an LLR?
4. What are the main challenges of maintaining an LLR, and what strategies can be used to address them?

By addressing these questions, we seek to establish a replicable and adaptable LLR model that supports evidence-based education-related interventions. The insights gained from this work will inform future iterations of our research, including journal publications detailing findings from the LLR and strategies for sustaining long-term updates.

## 2 Background: Systematic Literature Reviews and their Limitations

### 2.1 Definition and Purpose of Systematic Reviews

SLRs are a rigorous method of synthesizing existing research to provide comprehensive, unbiased, and reproducible insights to further our understanding of a specific topic (Gough & Thomas, 2016). Unlike traditional narrative reviews, SLRs follow a structured methodology that involves defining a research question, systematically searching for relevant studies, applying inclusion and exclusion criteria, extracting and synthesizing data, and assessing study quality. The goal is to offer an evidence-based summary that can guide future research, policy decisions, and practice (Borrego et al., 2014).

### 2.2 Types of Systematic Reviews

SLRs come in several forms (Grant & Booth, 2009; Paul et al., 2023), depending on the research question and available evidence. Some common types include:

- **Quantitative systematic reviews:** These focus on synthesizing numerical data, often through meta-analysis, to determine the effect size of an intervention or relationship between variables.
- **Qualitative systematic reviews:** These integrate findings from qualitative studies to explore themes, patterns, and theoretical insights.
- **Mixed-methods systematic reviews:** These combine both quantitative and qualitative data to provide a more holistic understanding of a research question.

- **Rapid reviews:** These are condensed versions of systematic reviews that apply simplified methodologies to produce findings in a shorter timeframe.
- **Living literature reviews (LLRs):** These are continuously updated systematic reviews that integrate new research findings as they become available.

## 2.3 Standard Methodology of SLRs

Traditional systematic reviews use a structured and transparent process to ensure rigor and reliability. Below are the eight key steps (Uman, 2011):

1. **Formulate the Review Question**  
The first stage involves defining the review question, forming hypotheses, and developing a title that indicate that the study is a systematic review and/or meta-analysis.
2. **Define Inclusion and Exclusion Criteria**  
Using the PICO (or PICOC) framework—Population, Intervention, Comparison, Outcomes (and Context)—helps determine study parameters, such as sample characteristics, study design, and outcome measures.
3. **Develop Search Strategy and Locate Studies**  
A well-designed search strategy ensures comprehensive identification of relevant studies. Consulting an information specialist or librarian can help optimize electronic searches. Common sources include electronic databases, article reference lists, key journal hand-searching, listserv postings, and expert contacts.
4. **Select Studies**  
After retrieving and screening abstracts, studies meeting inclusion criteria are reviewed in full. At least two independent reviewers should conduct this process to ensure reliability. Maintain a log of reviewed studies with inclusion/exclusion justifications, and contact study authors for missing data (e.g., means, standard deviations) and obtain translations.
5. **Extract Data**  
A standardized data extraction form or table helps organize study details (e.g., authors, year, sample size, age range, study design, outcomes). Data extraction by at least two reviewers enhances accuracy and minimizes errors.
6. **Assess Study Quality**  
Quality assessment frameworks such as the Consolidated Standards of Reporting Trials (CONSORT) Statement (<http://www.consort-statement.org/>) guide evaluations. Some metrics are heavily influenced by double-blinding, which is important for pharmacological trials but less applicable for psychological or non-drug interventions.
7. **Analyse and Interpret Results**  
Summarizing findings and providing recommendations for practice and future research are critical. This step outlines which interventions are effective, for whom, and under what conditions, as well as areas requiring further investigation.
8. **Disseminate Findings**  
Finally, results should be shared through academic publications, presentations, policy briefs, and other knowledge translation activities to maximize impact.

Reviews involving qualitative data can follow adjusted guidelines, such as given by Noyes et al. (2023) or Borrego et al. (2014). Following these steps provide a structured approach to conducting systematic reviews, ensuring a transparent and methodologically sound process.

## 2.4 Why Traditional SLRs May Become Outdated

While SLRs provide a robust synthesis of existing evidence, they have limitations, particularly in fast-evolving fields (Shojania et al., 2007). Traditional SLRs are time-intensive, often taking months or even years to complete. By the time they are published, new studies may have emerged, rendering their conclusions partially outdated. Additionally, updating an SLR requires repeating the entire review process, which is resource-intensive and impractical for many researchers.

## 2.5 Challenges of Keeping an SLR Updated in Non-Medical Fields

Updating SLRs is particularly challenging in non-medical fields, where research methodologies and reporting standards vary widely. In fields such as education and psychology, qualitative and mixed-methods studies are common, presenting challenges such as requiring subjective interpretation, which may evolve over time, and lacking uniform protocols for data collection and analysis.

## 2.6 Living Literature Reviews as a Solution

To address the limitation of becoming outdated, LLRs offer a dynamic alternative (). Unlike traditional SLRs, LLRs are designed to be continuously updated, ensuring that the latest research is incorporated as it becomes available (Iannizzi et al., 2023).

Living literature reviews address the problem of academic publications doubling every 12 years (Clancy, 2024) by providing continuously updated, accessible syntheses of research. Unlike traditional reviews, they avoid paywalls and jargon, ensuring clarity for non-specialists while maintaining rigor. If a single expert or a core team curates these reviews, they offer a consistent perspective while collaborating with others. Digital platforms enable updates, corrections, and broad distribution via websites, newsletters, and podcasts. By making research more accessible, living literature reviews foster interdisciplinary connections and inform policy and innovation.

# 3 Understanding the Living Literature Review Methodology

## 3.1 Defining Living Literature Reviews (LLRs) and Their Key Characteristics

Living Literature Reviews (LLRs) are a dynamic extension of traditional Systematic Literature Reviews (SLRs), designed to incorporate new evidence as it emerges. Unlike conventional SLRs, which offer a snapshot of existing research at a specific point in time, LLRs remain continuously updated. This approach ensures that the synthesis of research remains relevant, particularly in fields where knowledge evolves rapidly (Iannizzi et al., 2023).

The distinguishing feature of LLRs is their iterative nature. Instead of producing a static summary of literature, an LLR is structured to be revised periodically, integrating new studies that may refine or challenge existing conclusions (Elliott et al., 2017). This makes them particularly useful in areas where ongoing research can significantly influence best practices, policy decisions, or theoretical frameworks.

## 3.2 Criteria for Implementing an LLR

Not all research areas necessitate an LLR approach. The Living Evidence Network (2019) outlines three key conditions that justify adopting an LLR:

1. The research question must be important to practice or policy, either currently or in the near future.
2. There must be substantial uncertainty in the existing evidence, necessitating continual reassessment.
3. New studies are likely to emerge frequently and meaningfully impact the conclusions drawn from the literature.

In the context of academic coaching, these criteria are met due to the rapidly evolving nature of pedagogical approaches, increasing reliance on technological tools, and shifting student needs. Establishing an LLR for

this field allows for timely integration of new insights, ensuring that academic coaching interventions remain informed by the latest research.

### 3.3 Existing Guidelines for LLRs

The methodology for LLRs has been well-established in medical and health sciences research, where ongoing updates are needed for evidence-based practice (Aki et al., 2024). In fields such as education and social sciences, however, structured guidelines for implementing LLRs are still emerging. Frameworks developed for medical LLRs emphasize predefined update cycles, mechanisms for tracking new evidence, and clear reporting structures for changes in findings over time.

For qualitative and mixed-methods research, LLR methodologies must accommodate a broader range of data types and interpretative approaches. Unlike clinical studies, where new trial data can be systematically incorporated, qualitative research requires ongoing thematic synthesis, reflection, and adaptation. Emerging frameworks suggest flexible update intervals, integration of qualitative evidence synthesis methods, and consideration of methodological shifts within the field.

### 3.4 Relevance of LLRs in Academic Coaching Research

Academic coaching is an evolving field where interventions, strategies, and theoretical perspectives are continuously refined. The need for ongoing synthesis of evidence in this area is critical, given the diversity of coaching models and the varying contexts in which they are applied. A static SLR provides foundational insights, but without continuous updates, it risks becoming outdated as new studies emerge.

By transitioning to an LLR approach, this study aims to ensure that research on academic coaching remains responsive to new developments. This has practical implications for institutions seeking to implement effective coaching programs, as well as for researchers and policymakers shaping the future of student support systems.

Furthermore, establishing an LLR in this field presents methodological considerations, including decisions on how to refine the original search strategy, how to integrate new types of publications such as literature reviews, and how to balance comprehensiveness with manageability. These challenges underscore the importance of developing robust procedures for maintaining an LLR in an educational research context.

## 4 Methodological Steps in Transitioning from an SLR to an LLR

Moving from a traditional systematic literature review (SLR) to a Living Literature Review (LLR) requires thoughtful modifications to search strategies, data management, and reporting structures (Aki et al., 2017). Unlike static reviews, which capture research at a single point in time, an LLR remains dynamic, integrating new findings as they emerge. This approach ensures that academic coaching research stays relevant, reflecting the latest insights into student support and intervention strategies.

### 4.1 Revising Search Strategies for Continuous Updates

A key feature of an LLR is the ability to systematically refresh search results, ensuring that emerging research is incorporated in a structured manner. Rather than relying on one-off searches, the process must be designed for ongoing updates. This requires expanding search terms to capture new trends and leveraging AI-driven search tools to refine queries efficiently. Automated systems can help identify relevant studies as they are published, reducing manual effort while maintaining accuracy. Establishing clear protocols for when and how searches will be conducted—whether monthly, quarterly, or biannually—further ensures consistency.

## 4.2 Optimizing Search Frequency and Inclusion Criteria

Balancing comprehensiveness with manageability is essential in an LLR. While frequent updates improve relevance, excessive revisions can create unnecessary disruptions. A structured approach helps mitigate this challenge. Defining how often searches are conducted allows for systematic integration of new evidence, ensuring that updates remain meaningful rather than incremental. Additionally, setting clear inclusion criteria ensures that only studies meeting predefined relevance and methodological standards are incorporated. A threshold-based approach—where updates are triggered by a critical mass of new studies rather than each individual publication—prevents minor revisions from overwhelming the review process (Aki et al., 2017).

## 4.3 Managing Qualitative Data Updates and Refining Coding Structures

Incorporating new qualitative research presents unique challenges, as evolving themes and perspectives require continuous adaptation. Unlike quantitative reviews, where statistical synthesis dominates, an LLR in academic coaching must remain flexible in its treatment of qualitative data. As new studies emerge, thematic coding structures may need to be refined to reflect shifting patterns. Maintaining an iterative approach ensures that coding remains responsive to new insights while avoiding redundancy. Transparent documentation of these refinements is essential, providing a clear record of how interpretations evolve over time. Qualitative data management software, such as NVivo or ATLAS.ti, can support this process by enabling structured tracking of thematic changes and coding revisions.

## 4.4 Establishing Transparent Reporting in an LLR Framework

To ensure credibility, an LLR must adopt structured reporting mechanisms that provide clarity on how updates are managed. The PRISMA-LSR checklist (Aki, 2024) offers a useful framework for documenting changes. It outlines key elements such as update frequency, justifications for methodological adjustments, and a clear record of how new studies impact existing conclusions. Beyond simply reporting findings, maintaining an active review status and indicating when the next update is expected enhances transparency and usability for researchers and practitioners who rely on up-to-date evidence.

# 5 Implementing a Living Literature Review for Academic Coaching Interventions

## 5.1 Justification for Using an LLR in Academic Coaching Research

Academic coaching is an evolving field, with ongoing research exploring its impact on student success, retention, and well-being. Unlike medical research, where new findings may be published monthly or even weekly, educational research—particularly in academic coaching—tends to have a slower turnover rate.

An LLR ensures that academic coaching interventions remain informed by the latest research. This adaptability is helpful given the dynamic nature of coaching practices, which evolve due to:

- Shifting student needs and expectations (e.g., changes in motivation, mental health challenges, and learning preferences).
- Emerging pedagogical frameworks (e.g., new coaching models that integrate positive psychology or self-regulation strategies).
- Advancements in digital coaching tools (e.g., AI-driven tutoring, adaptive learning platforms, chatbots).

By maintaining an ongoing synthesis of research, LLRs provide researchers, educators, and policymakers with timely, evidence-based insights to refine coaching interventions. This approach enhances practical applicability, ensuring that academic coaching programs remain aligned with current best practices.

## 5.2 Adapting LLR Methodology for Qualitative and Mixed-Methods Research

While many SLRs focus on quantitative studies and meta-analyses, academic coaching research often relies on qualitative and mixed methods approaches. These methodologies introduce unique challenges for maintaining an LLR, requiring careful adaptation to ensure that diverse study designs are integrated meaningfully over time.

One key challenge is the inclusion of both experimental and non-experimental studies, such as case studies, interviews, and ethnographic research. Unlike quantitative studies, where effect sizes can be compared numerically, qualitative research demands thematic synthesis—a process that must evolve as new themes emerge. To manage this, LLRs must incorporate flexible coding frameworks, allowing researchers to refine categories as the field progresses.

Another challenge is the risk of thematic saturation. As an LLR continues over time, some qualitative themes may become repetitive rather than novel. Researchers must periodically assess whether newly included studies contribute fresh insights or simply reinforce existing findings. One strategy is to implement thematic saturation checks, ensuring that only studies that expand or challenge current understanding are integrated.

Moreover, qualitative synthesis in an LLR requires balancing interpretive depth with methodological rigor. As coding frameworks evolve, researchers must document changes transparently, ensuring consistency and reproducibility in how qualitative findings are interpreted over time. Mixed-methods research adds another layer of complexity, necessitating integration strategies that bridge numerical data with narrative insights, ensuring a cohesive synthesis rather than treating qualitative and quantitative findings as separate streams.

By adapting LLR methodologies to accommodate these complexities, researchers can maintain the richness of qualitative inquiry while ensuring that updates remain systematic and meaningful.

## 6 Implementation Challenges and Workarounds

### 6.1 Managing Search Strategies and Volume of New Studies

Given the dynamic nature of academic coaching literature, effective management of search updates is essential. Across six pilot LSRs analysed by Millard et al. (2019), search frequency varied from monthly to every three months, with some teams using machine learning and Cochrane Crowd to screen citations. Researchers should configure automated alerts for major databases (e.g., PubMed, Scopus, Web of Science) and integrate citation managers like EndNote or Zotero to streamline tracking. Where relevant, researchers should consider grey literature, including policy reports and dissertations, which could be reviewed quarterly through repositories such as OpenGrey. Refining keyword strategies with emerging terminology and controlled vocabularies (e.g., Medical Subject Heading or 'MeSH' terms) ensures comprehensive coverage.

The volume of new studies presents a challenge. The number of citations screened in the Millard et al. study ranged widely, from three to 300 per month, with review teams dedicating anywhere from five minutes to 32 hours per month to updates. To balance this workload, predefined inclusion thresholds should be established—immediate incorporation for impactful studies, while others can be batched for periodic updates. A structured decision-making framework should be used to assess new data's significance, considering its effect on key findings and underrepresented subpopulations.

### 6.2 Ensuring Methodological Consistency and Managing Workload

Maintaining uniform synthesis methods, such as meta-analyses or thematic coding, prevents inconsistencies. Clear documentation of methodological adjustments should be maintained in supplementary materials. Following a structured methodology, such as given by Wilson et al. (2023), ensures that new members in the review team have clear processes to follow, and that adjustments to processes are clearly documented.

Participants in the Millard et al. (2019) study emphasized the importance of a well-organized and motivated team, as well as technology enablers to improve workflow efficiencies. However, they also identified challenges, including the ongoing workload burden and limited long-term resources to sustain LSRs. Regular team discussions and expert consultations help address these evolving methodological needs.

### 6.3 Managing Authorship, Citations, and Publication Challenges

LLRs require careful version control. Each update should receive a unique DOI to maintain transparency in modifications. Structured documentation, such as the PRISMA-LSR checklist (Aki et al., 2024), should track changes in methodology and included studies. Citation complexities arise with multiple versions of an LLR, potentially fragmenting impact metrics. Future solutions may include linked DOIs or citation aggregation to consolidate references across versions.

### 6.4 Decision-Making for Updating or Ending an LLR

It may be necessary to discontinue an LLR. Murad et al. (2023) suggest that reviews should be retired when:

- New evidence is unlikely to alter conclusions.
- No meaningful effects are found.
- The research question loses relevance.
- No new studies are anticipated.

### 6.5 Example text for Methods

The following example texts based on examples in Aki et al. (2024) provide a structured approach to maintaining an LLR. Such text should be included in Methods sections.

*"We will screen new citations from monthly searches immediately upon retrieval."*

*"When new evidence meeting the inclusion criteria is identified, we will extract relevant data, assess the risk of bias, and incorporate findings into the synthesis every four months, as appropriate."*

*"Decisions on whether to discontinue updates will be based on key considerations, including:*

- *The likelihood that future updates will change conclusions,*
- *The absence of meaningful effects in new evidence,*
- *The review question no longer being a priority for decision-making, and*
- *The lack of emerging evidence relevant to the review.*

*We will follow best practices and ongoing research in this area to guide these decisions."*

*"An annual reassessment of the review scope and methodology will ensure alignment with evolving evidence. Expanding intervention comparisons or outcome measures may be necessary based on emerging trends. If resource constraints require discontinuation, we will transparently report the rationale for retirement decisions to ensure accountability."*

## 7 Potential of AI Tools in Living Literature Reviews

### 7.1 Enhancing LLR Workflows with AI

Artificial intelligence (AI) has the potential to significantly streamline LLR processes by automating labour-intensive tasks, improving efficiency, and ensuring timely updates. AI tools can support LLRs by:

- Automating literature searches and citation tracking: AI-driven platforms can continuously monitor databases, refine search strategies, and retrieve new publications in real time. Machine learning models can rank articles by relevance, reducing the manual workload for researchers.



- Facilitating blinded screening and study selection: Tools like Rayyan allow review teams to conduct blinded screening of references based on inclusion/exclusion criteria, reducing bias and improving consistency in selection.
- Supporting qualitative coding and thematic analysis: AI-based text analysis tools can assist in identifying patterns, coding qualitative data, and detecting emerging themes. These tools can generate preliminary insights, allowing researchers to focus on higher-level synthesis.

By integrating AI into these stages, LLRs can remain dynamic, responsive, and methodologically rigorous while reducing the burden on research teams.

## 7.2 AI Tools for LLR Implementation

A variety of AI-powered tools are available to assist at different stages of LLR management, from literature searches to synthesis:

Citation tracking and reference management:

- Zotero, EndNote, and Connected Papers facilitate organized literature management and tracking of updates.
- Rayyan enables blinded screening, allowing reviewers to assess studies independently before resolving conflicts, enhancing transparency and reducing bias.

AI-assisted systematic searching:

- Elicit and Scite use natural language processing (NLP) to refine search queries and identify highly relevant articles.
- Semantic Scholar leverages AI to highlight key findings and assess study influence.

Thematic analysis and evidence synthesis:

- NVivo and ATLAS.ti incorporate AI-driven text analysis to detect patterns in qualitative data.
- ASReview applies active learning to optimize systematic reviews by prioritizing the most relevant studies first.

Thomas et al. (2017) suggest micro-tasks that can be distributed among team members to manage the workload in living literature reviews. By leveraging AI tools, LLR teams can reduce manual workload, improve accuracy, and accelerate the synthesis process while maintaining high methodological standards.

## 7.3 Ethical Considerations and Limitations of AI in Research Synthesis

While AI offers efficiency gains in managing LLRs, ethical and methodological concerns must be addressed:

- Risk of bias in AI-generated outputs: AI models are trained on existing datasets, which may introduce biases in search results, thematic identification, and synthesis. Researchers must critically evaluate AI-generated insights to avoid reinforcing existing biases.
- Transparency and reproducibility concerns: Many AI algorithms operate as "black boxes," making it difficult to trace decision-making processes. Ensuring transparency in AI-assisted literature reviews is crucial for maintaining research integrity.
- Need for human oversight in data interpretation: AI should be regarded as a support tool rather than a substitute for researcher expertise. While AI can assist with automation and pattern recognition, human judgment remains essential for assessing study quality, determining relevance, and synthesizing findings meaningfully.
- Data privacy and security considerations: When using AI-powered platforms, researchers must be mindful of data protection policies, particularly when handling sensitive or proprietary research information.

AI tools can enhance the efficiency and responsiveness of LLRs. Responsible implementation requires careful oversight, methodological transparency, and adherence to ethical research principles.

## 8 Conclusion and Future Directions

### 8.1 Adapting Living Literature Reviews for Educational Research

The integration of Living Literature Reviews (LLRs) into educational research offers significant benefits, yet it also presents methodological and practical challenges. Unlike traditional Systematic Literature Reviews (SLRs), LLRs enable research to remain current and actionable by continuously incorporating new evidence. This dynamic approach is particularly valuable in fields where emerging studies frequently shape best practices. However, effective implementation requires structured workflows, team coordination, and the strategic use of technology.

A major challenge of LLRs is managing high search volumes while maintaining methodological consistency. The need for frequent updates introduces logistical complexities, including publication options and evolving inclusion criteria. Addressing these challenges requires clear protocols for screening new citations, systematic risk assessments, and well-defined update cycles. Despite these hurdles, LLRs offer a powerful tool for ensuring that educational research remains aligned with contemporary findings and policy needs.

### 8.2 Future Research Directions

To strengthen the role of LLRs in education research, future studies should refine methodologies for integrating qualitative and mixed-methods research. Current LLR frameworks have primarily been developed for quantitative evidence synthesis, and adapting these approaches for diverse research designs is essential. Investigating how existing LLR guidelines can be tailored to different disciplines will further enhance their usability and impact.

Understanding how LLRs shape decision-making, influence teaching strategies, and inform institutional policies will provide valuable insights into their effectiveness. Comparative studies on the sustainability of LLRs across various research areas could also yield best practices for their implementation.

### 8.3 Concluding Thoughts on the Role of LLRs in Academic Research

By adopting best practices from established frameworks, such as the PRISMA-LSR extension (Aki et al., 2024), researchers can enhance the efficiency and methodological consistency of LLRs. As academic coaching and other education research fields continue to evolve, LLRs ensure that evidence remains current and actionable, supporting informed policy and instructional decisions.

Beyond their immediate applications, LLRs offer a transformative approach to evidence synthesis. Their ability to incorporate new findings in real time fosters a more responsive and adaptive research landscape. By refining LLR methodologies and addressing the challenges of ongoing updates, researchers can establish LLRs as living, evolving resources, ensuring that educational insights remain relevant and impactful.

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