

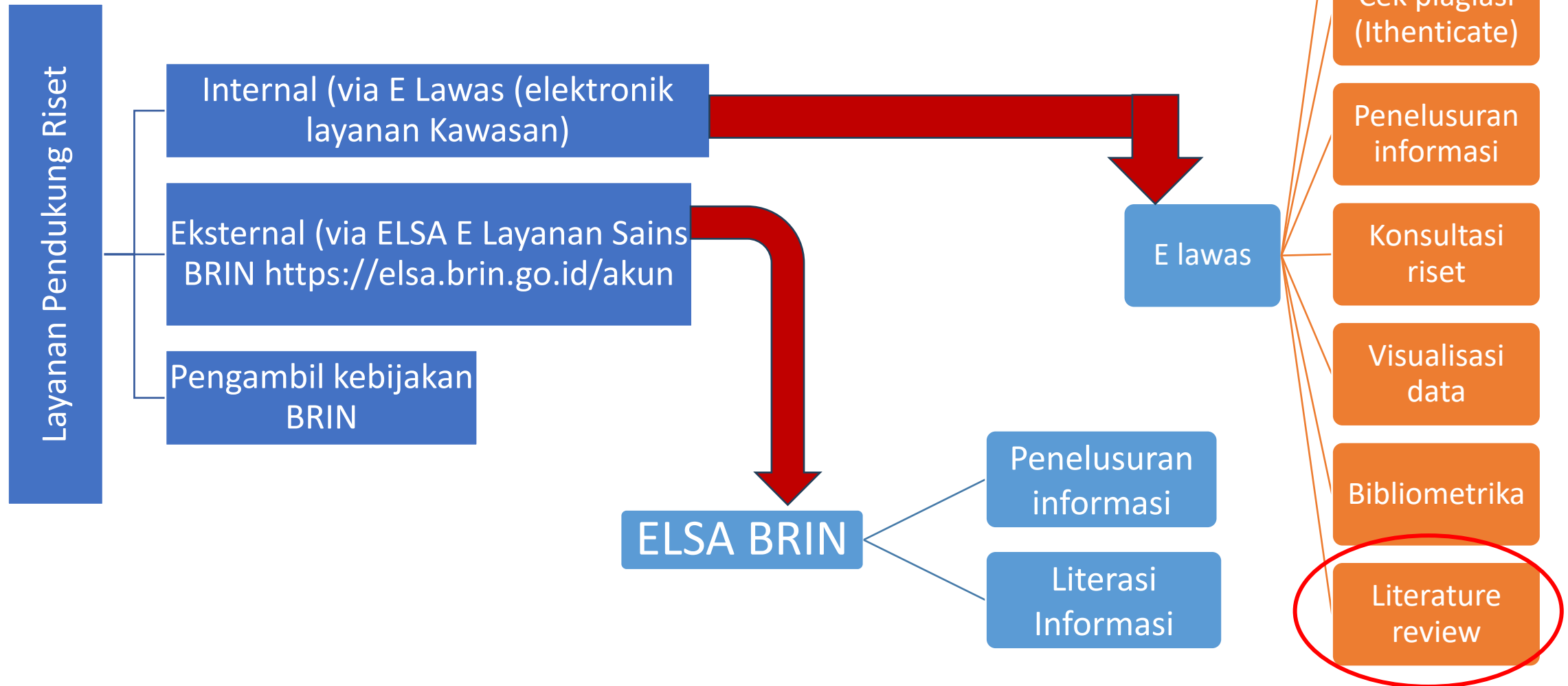
Pengenalan Metode Systematic Literature Review (SLR)

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Disampaikan pada Pelatihan Pemanfaatan Artificial Intelligence (AI) di Perpustakaan
Universitas Negeri Medan, 20 Juni 2024

Outline

- Sekilas Tentang Layanan Perpustakaan Pendukung riset BRIN
- Overview Literatur Review: Narrative dan Systematic Literature Review (SLR)
- Tahapan Melakukan SLR secara Umum
- Praktik Tools AI untuk SLR

Layanan Perpustakaan BRIN



Literatur Review

Definisi dan manfaat:

- kegiatan sistematis untuk mengumpulkan dan mensintesis hasil-hasil penelitian.
- memberikan landasan yang kokoh untuk memajukan pengetahuan dan memfasilitasi pengembangan teori.
- mengintegrasikan temuan dan pandangan dari banyak penelitian empiris, sehingga dapat menjawab pertanyaan penelitian
- membantu untuk menentukan ruang lingkup penelitian
- mengidentifikasi aspek-aspek yang telah ditulis/diteliti oleh suatu topik penelitian, sehingga dapat untuk analisis gap.
- mengungkapkan tren atau pola suatu topik penelitian
- menghasilkan kerangka dan teori baru
- pada penelitian sosial diakui kredibilitasnya, karena keseluruhan presentasi kuat, koheren, dan diartikulasikan dengan baik.

Jenis Literatur Review (ada banyak)

- **Narrative/ traditional review**

Meringkas secara kualitatif mengenai topik tertentu menggunakan metode informal atau subyektif dalam mengumpulkan dan menginterpretasikan studi

- **Systematic Literature Review (SLR)**

Review berdasarkan RQ yang terformulasikan dengan jelas, dengan metode yang sistematis dan eksplisit dalam mengidentifikasi, menyeleksi, dan menilai secara kritis publikasi primer, mengekstrak dan mensintesis data untuk menjawab RQ

Narrative/ traditional review

Ciri-ciri:

- Bertujuan untuk meringkas atau mensintesis suatu topik tertentu.
- Tidak mencari generalisasi atau pemahaman yang komprehensif
- Tidak ada standar atau protokol penelitian untuk memandu.
- Umumnya digunakan untuk memahami konsep baru.

Cara pencarian pustaka:

- Tidak menggunakan strategi khusus
- Penulis biasanya memilih studi yang mendukung pandangan mereka

Cara menseleksi pustaka:

- Tidak ada kualitas tertentu atau penilaian bias

Sintesis dan penyajian hasil

- Umumnya dengan narasi

Cara Analisis

- Umumnya menganalisis aspek kronologis, tema, topik dsb.

(Yoganingrum, 2020)

Systematic Literature Review

Ciri-ciri:

- Bertujuan menilai suatu topik secara kritis berdasarkan bukti empiris yang memenuhi serangkaian kriteria yang telah ditentukan sehingga mampu menjawab pertanyaan penelitian secara mendalam
- Pertanyaan penelitian terformulasi secara jelas
- Menggunakan instrumen/protokol penelitian yang telah divalidasi (misalnya PRISMA, AMSTAR atau GRADE).

Cara pencarian pustaka

- Lengkap dan menyeluruh
- Memiliki kerangka pencarian ([sistematis dan reproducible](#))

Cara seleksi

- Mengumpulkan dan menseleksi pustaka secara kritis dan memiliki kriteria inklusi dan eksklusi yang jelas dan terjustifikasi ([Eksplisit](#))

Sintesis dan Penyajian hasil:

- Naratif dilengkapi dengan tabel

Cara analisis: bisa Kualitatif dan kuantitatif

(Yoganingrum, 2020)

Systematic Review

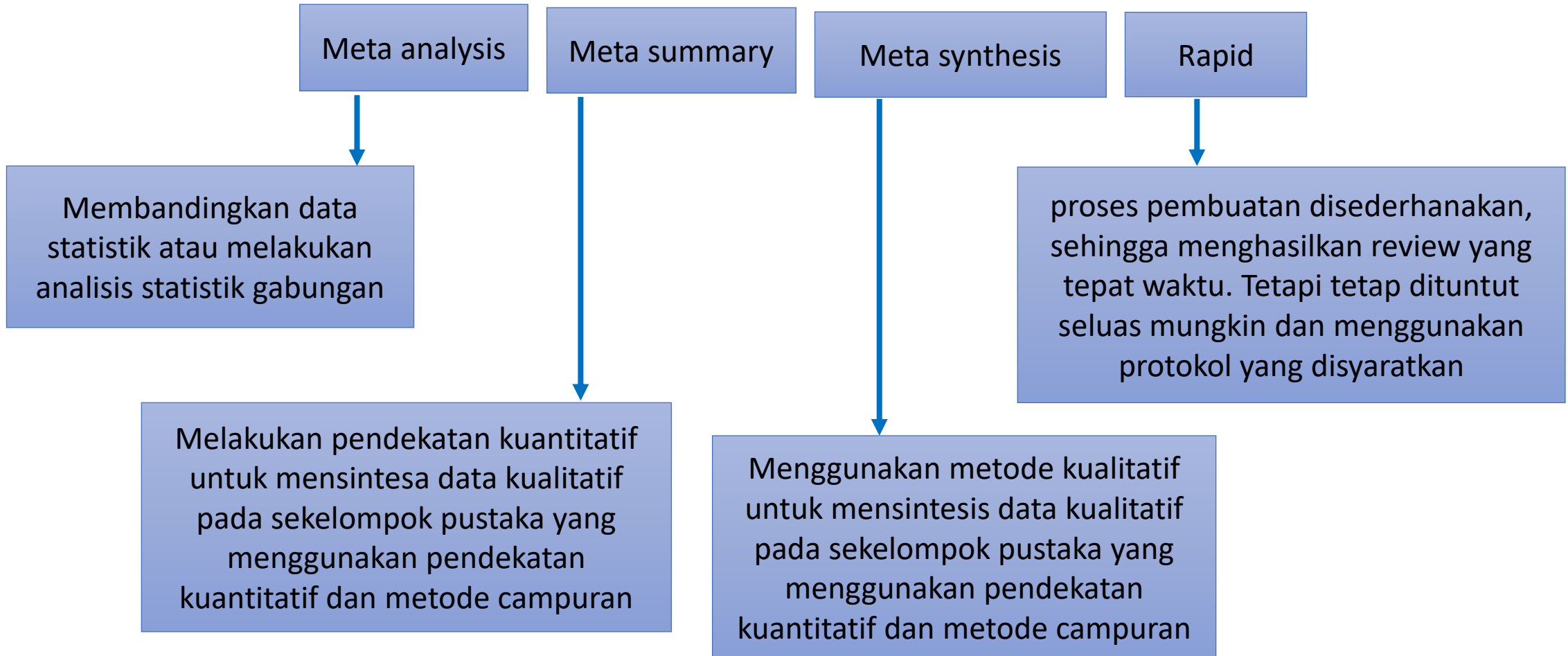


Table 1 Types of reviews

Review Type	Aim	Question Format	Question Example
Effectiveness	To evaluate the effectiveness of a certain treatment/practice in terms of its impact on outcomes	Population, Intervention, Comparator/s, Outcomes (PICO) [23]	What is the effectiveness of exercise for treating depression in adults compared to no treatment or a comparison treatment? [69]
Experiential (Qualitative)	To investigate the experience or meaningfulness of a particular phenomenon	Population, Phenomena of Interest, Context (PICo) [13]	What is the experience of undergoing high technology medical imaging (such as Magnetic Resonance Imaging) in adult patients in high income countries? [70]
Costs/Economic Evaluation	To determine the costs associated with a particular approach/treatment strategy, particularly in terms of cost effectiveness or benefit	Population, Intervention, Comparator/s, Outcomes, Context (PICOC) [14]	What is the cost effectiveness of self-monitoring of blood glucose in type 2 diabetes mellitus in high income countries? [71]
Prevalence and/or Incidence	To determine the prevalence and/or incidence of a certain condition	Condition, Context, Population (CoCoPop) [15]	What is the prevalence/incidence of claustrophobia and claustrophobic reactions in adult patients undergoing MRI? [72]
Diagnostic Test Accuracy	To determine how well a diagnostic test works in terms of its sensitivity and specificity for a particular diagnosis	Population, Index Test, Reference Test, Diagnosis of Interest (PIRD) [16]	What is the diagnostic test accuracy of nutritional tools (such as the Malnutrition Screening Tool) compared to the Patient Generated Subjective Global Assessment amongst patients with colorectal cancer to identify undernutrition? [73]
Etiology and/or Risk	To determine the association between particular exposures/risk factors and outcomes	Population, Exposure, Outcome (PEO) [17]	Are adults exposed to radon at risk for developing lung cancer? [74]
Expert opinion/policy	To review and synthesize current expert opinion, text or policy on a certain phenomena	Population, Intervention or Phenomena of Interest, Context (PiCo) [18]	What are the policy strategies to reduce maternal mortality in pregnant and birthing women in Cambodia, Thailand, Malaysia and Sri Lanka? [75]
Psychometric	To evaluate the psychometric properties of a certain test, normally to determine how the reliability and validity of a particular test or assessment	Construct of interest or the name of the measurement instrument(s), Population, Type of measurement instrument, Measurement properties [31, 32]	What is the reliability, validity, responsiveness and interpretability of methods (manual muscle testing, isokinetic dynamometry, hand held dynamometry) to assess muscle strength in adults? [76]

(Munn et al., 2018)

Transformation of libraries during Covid-19 pandemic: A systematic review

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ARTICLE INFO

Keywords

Research question

1. What types of library services are being offered by libraries to their users during Covid-19 pandemic?
2. What challenges are being faced by libraries in COVID19 pandemic?
3. What were the evolving and emerging roles of libraries in this pandemic?
4. What are the preferred communication tools being used by libraries to continue their library services and to reach out to their users?

Method

This study applied a systematic literature review approach to critically appraise the published literature on libraries' services, emerging roles, challenges, and preferred communication tools during Covid-19 pandemic, following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. The PRISMA guidelines enable investigators to report evidence-based items that are useful for critical appraisal of published literature in a systematic way (Moher et al., 2009). PRISMA considers four elements of a study, such as identification, screening, eligibility, and included studies. Though originally developed for use in the health-care professions, it has been shown to be equally applicable in a variety of other fields. Recent research in the discipline of library and information science (LIS) has successfully used PRISMA guidelines to conduct systematic reviews of scientific literature (Ashiq, Rehman, Safdar, et al., 2021; Ashiq & Waernich, 2022). Furthermore, we also used the PRISMA 2020 Checklist developed by Page et al. (2021) to formulate the title of the study, objectives, methods, results, discussion, and other details (particularly focusing on search details, inclusion and exclusion criteria, synthesis of results, risk of bias, etc.).

ABSTRACT

Purpose: This study analyze academic library services during Covid-19 pandemic (2020 and 2021), as well as the challenges they face, emerging library roles, and the most effective communication tools.

Method: A systematic review of the relevant literature was undertaken following PRISMA guidelines. The relevant literature was retrieved from four major scholarly databases (Scopus, Web of Science, Library, Information Science & Technology Abstracts (LISTA), and Library and Information Science Abstracts (LISA)). The relevant 23 studies were included fulfilling inclusion criteria. A quality assessment of the included studies was also

databases to conduct our research (Scopus, Web of Science, LISTA, and LISA). The first author ran the following search query on July 4, 2021, in the four databases mentioned above. The second author repeated this process on the same date to make sure the results were correct.

("academic library" OR "university library" OR "online services" OR "information literacy" OR "digital library") AND ("covid 19 pandemic" OR "covid-19" OR "fake news")

Search details and screening process

The details of the search process in each databases is as follows;

- I. We used 'Web of Science core collection' using topic field and then applied the following filters (Publication years 2020–2021; Document types=articles; Web of science categories=information science library science; Languages=English). This search resulted in 161 results.
- II. We run search query in Scopus database using TITLE-ABS-KEY (title, abstract and keyword) field and then applied the following filters (Years 2020–2021; Document type=article; Source type=journal; Language=English). This search resulted in 368 results.
- III. In LISTA (library, information science and technology abstracts) database, we just put the search query in a search box and then applied the following limiters (Scholarly journals; publication data 2020–2021; Articles; English). This search resulted in 115 results.
- IV. In LISA (library and information science abstracts) database, we run search query in a 'scholarly journal' field and then applied following filters (Publication date: 2011–2021; Document type=articles; Language: English). This search resulted in 1998 results.
- V. Overall, the total results from all 4 databases were 2642 records.

is certainly effecting and transforming libraries, their during Covid-19 pandemic, their fundamental challenges, communication tools are the categories in this study to better understand that libraries must establish infrastructure and improve access to modern library users who access resources remotely. Academic policymakers and library directors should prepare themselves for the future.

Inclusion and exclusion criteria

We included all relevant studies published between 2020 and 2021 about academic universities. Only research article (peer reviewed original articles) was included and studies that addressed more than one aspect of the study or met at least two research objectives. The studies dealing with the current library practices in the context of the Covid-19 pandemic, library challenges or issues, evolving or emerging library roles, and preferred communication tools for communicating with library stakeholders were included. Additional research articles were included (Fig. 1).

Synthesis of results

We used thematic approach to present through MS Excel. This approach involves coding and generating a descriptive text included in this review were extracted completing this process, the relevant text

Risk of bias

We have reduced the risk of bias in two ways. First, we used the search results and methodology approach for searching and downloading process (if repeated by the second author). In addition,

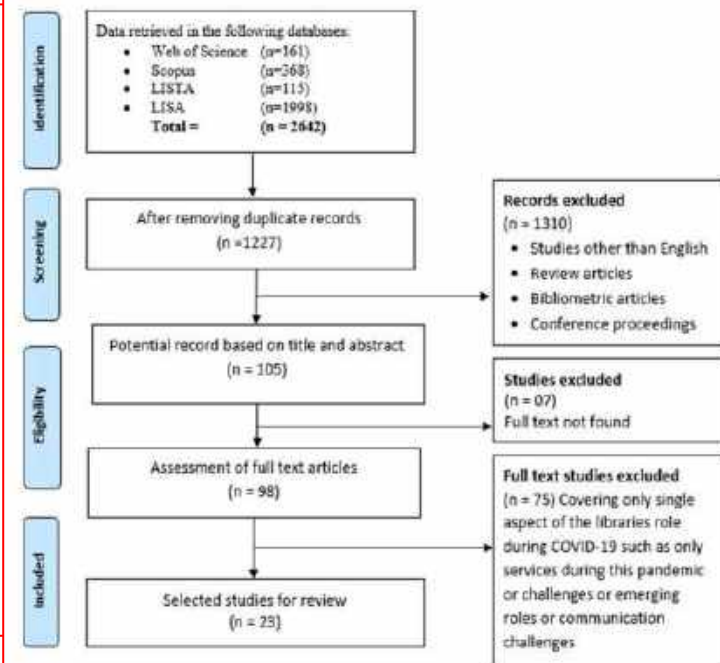


Fig. 2. Four-phase flow diagram of PRISMA guidelines.

Assessment checklist of the selected studies

In order to confirm the accuracy of the study, the risk of bias has been decreased by repeating the searching procedure, as well as data downloading, data extraction, and reporting of the results by the second author. Two researchers (author 1 and author 2) assessed the data (screening, eligibility, and included studies) and repeated the process to ensure that the data was accurate and reliable as possible. Finally, the data were entered and double-checked.

Quality assessment of selected studies

A critical component of any systematic literature review is evaluating the quality of the papers that are being examined. Over time, a number of quality assessment checklists (QACs) have been produced (Duan et al., 2011). The researchers picked the checklist developed by

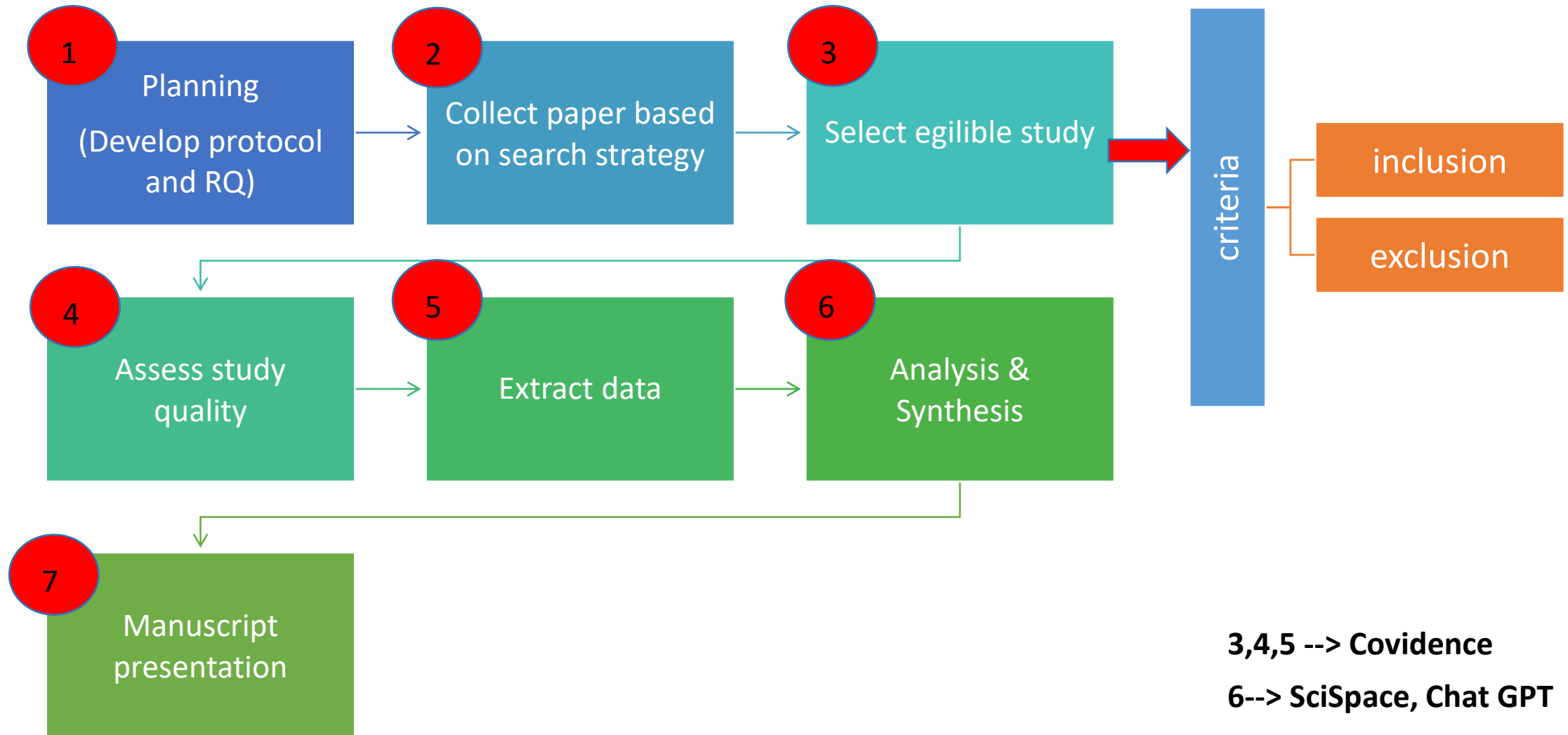
System and Greenhalgh (2004), since it was deemed relevant for this review. This checklist was also used by library and information science (LIS) researchers to assess the quality of their systematic review studies (Ashiq, Jabeen, Jabeen, et al., 2021; Safdar et al., 2021). The checklist includes (from relating to six different aspects of a study: questions and design, sampling, instrumentation, response rate, coding and analysis, and results presentation). The maximum score a study can receive is 13 based on these six views.

Table 1 shows that the category 'instrument score' was the lowest of all categories (53 out of 92), followed by 'sampling score' (32 out of 46) and 'response score' (17 out of 23). The majority of the studies did not disclose the instrument's reliability, validity, or pilot testing, which resulted in a low instrument score. Furthermore, some studies were descriptive and opinion-based, so they were not included in the sample and response score calculations. The categories 'question and design,'

Table 1
Quality assessment score of selected studies.

Studies	Question and design score (out of 23)	Sampling score (out of 23)	Instrument score (out of 46)	Response score (out of 23)	Coding and analysis score (out of 23)	Presentation of results score (out of 23)	Total score (out of 137)
Ashiq 2021	2	2	2	2	2	2	96
Ashiq et al., 2021a	2	2	2	2	2	2	13
Rehman et al., 2020	2	2	2	2	2	2	86
Chaudhry 2021	2	2	2	2	2	2	13

Tahapan Melakukan SLR



Protokol SLR

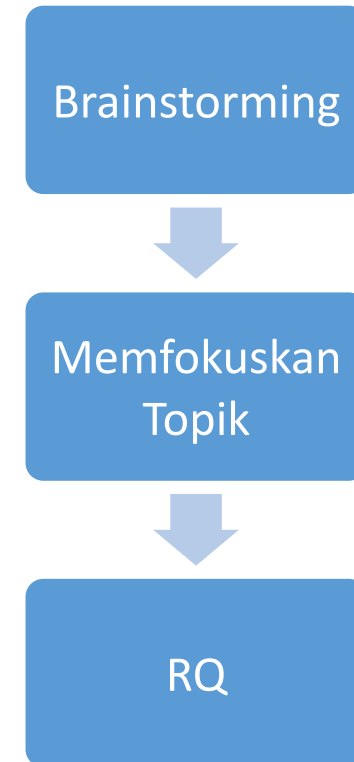
Protokol SLR : rencana yang berisi prosedur dan metode yang kita pilih dalam melakukan SLR → dituangkan dalam diagram PRISMA

Secara umum Protokol SLR biasanya memuat 7 elemen di bawah:

- Background
- Research Questions
- Search terms
- Selection criteria (Inklusi dan Eksklusi)
- Quality checklist and procedures
- Data extraction strategy (apa yang diekstrak, roles)
- Data synthesis strategy (qualitative (content/textual analysis) atau quantitative (grouping, charts, tables))

Research Question

- Research Question (RQ) adalah bagian awal dan dasar berjalannya SLR.
- RQ digunakan untuk menuntun proses pencarian dan ekstraksi literatur.
- Analisis dan sintesis data (sebagai hasil dari SLR) adalah jawaban dari RQ yang kita tentukan di awal.
- RQ yang baik adalah yang bermanfaat, terukur, mengungkap state-of-the-art research dari suatu topik penelitian--> FINER (Feasible, Interesting, Novel, Ethical, and Relevant)



FINER

(Feasible, Interesting, Novel, Ethical, Relevant)

Feasible

- Adequate number of subjects
- Adequate technical expertise
- Affordable in time and money
- Manageable in scope
- Fundable

Novel

- Provide new findings
- confirms, refutes or extends previous findings
- Lead in innovations, concepts, methodologies for research

Relevant

Have significant impacts on scientific knowledge, practice or policy

Fungsi RQ

- Sebagai dasar untuk menentukan keluasan dan kedalaman review.
- Sebagai landasan untuk mengembangkan strategi penelusuran.
- Sebagai dasar untuk memilih metode sintesis.
- Sebagai landasan untuk membuat kriteria inklusi dan eksklusi.

Framework PICO/PICOC/PICOT/PICOS

Manfaat: membantu mengidentifikasi masalah, merumuskan RQ, pencarian literatur

Population/Problem (P)	Target group dari investigasi--> What/ Who
Intervention (I)	Aspek detail dari investigasi, atau isu yang menarik bagi peneliti --> How/ Why
Comparison (C)	Aspek dari investigasi dimana Intervention (I) akan dibandingkan
Outcomes (O)	Efek dan hasil dari Intervention (I)
Context (Co)/ Time (T)	Konteks (C) dan setting waktu (T)
Study characteristics (S)	Jenis study (case study, cohort study, randomized controlled trial, dll.)

Contoh Implementasi PICO

RQ: Bagaimana perkembangan penelitian terapi radioaktif bagi pasien kanker anak

PICO	Konsep kata kunci
Problem/ population	Kanker
	Pasien kanker anak BUKAN dewasa
Intervention	Terapi radioaktif
Comparison	
Outcomes	

Penelusuran Literatur

Setelah RQ dan PICO diformulasikan, langkah berikutnya adalah menelusur literatur untuk SLR

- Identifikasi konsep kata kunci, terms dan sintaks
- Menyusun search strings (kombinasi Boolean)
- Melakukan penelusuran di database--> Pertimbangkan scope/ coverage database

Identifikasi Terms Kata Kunci

- Mind mapping
- Thesaurus :

Umum--> LCSH (Library of Congress Subject Headings)

<https://www.loc.gov/aba/publications/FreeLCSH/freelcsh.html>

Bidang sosial dan humaniora:

<https://vocabularies.unesco.org/browser/thesaurus/en/>

<https://eric.ed.gov/?faq-thesaurus>

Bidang Kenukliran:

INIS Thesaurus: <https://inis.iaea.org/search/thesaurus.aspx>

Bidang kedokteran:

MeSH: <https://www.ncbi.nlm.nih.gov/mesh/>

- Kamus
- Cari satu atau beberapa literatur relevan → ambil terms yang umum dipakai

Identifikasi sintaks

- Sinonim, NT, BT, RT, Akronim, Variasi ejaan, Jamak, Nama Ilmiah, Istilah khas di suatu negara
- Truncation (*), Wildcards (?), Phrase search (" " atau { })

PICO	Konsep kata kunci	Terms	Search strings
Problem/ population	Kanker	Cancer, neoplasm	(cancer OR neoplasm) AND (radiotherapy OR "radiation therapy" OR "cancer radiotherapy") AND (child* OR young OR youth OR "children of cancer patients" OR "cancer in children") AND NOT (adult* OR "young adult" OR adolescent* OR elderly) Tanda kurung() hanya digunakan untuk konsep kata kunci yang sama
	Pasien kanker anak BUKAN dewasa	Children, child, young, youth, children of cancer patients, cancer patients, Cancer in children	
Intervention	Terapi radioaktif	Radiotherapy, radiation therapy, cancer radiotherapy	
Comparison			
Outcomes			

Database

Database indexer langganan --> Scopus, WoS

Database langganan:

- ScienceDirect
- Proquest
- Ebsco
- dll.

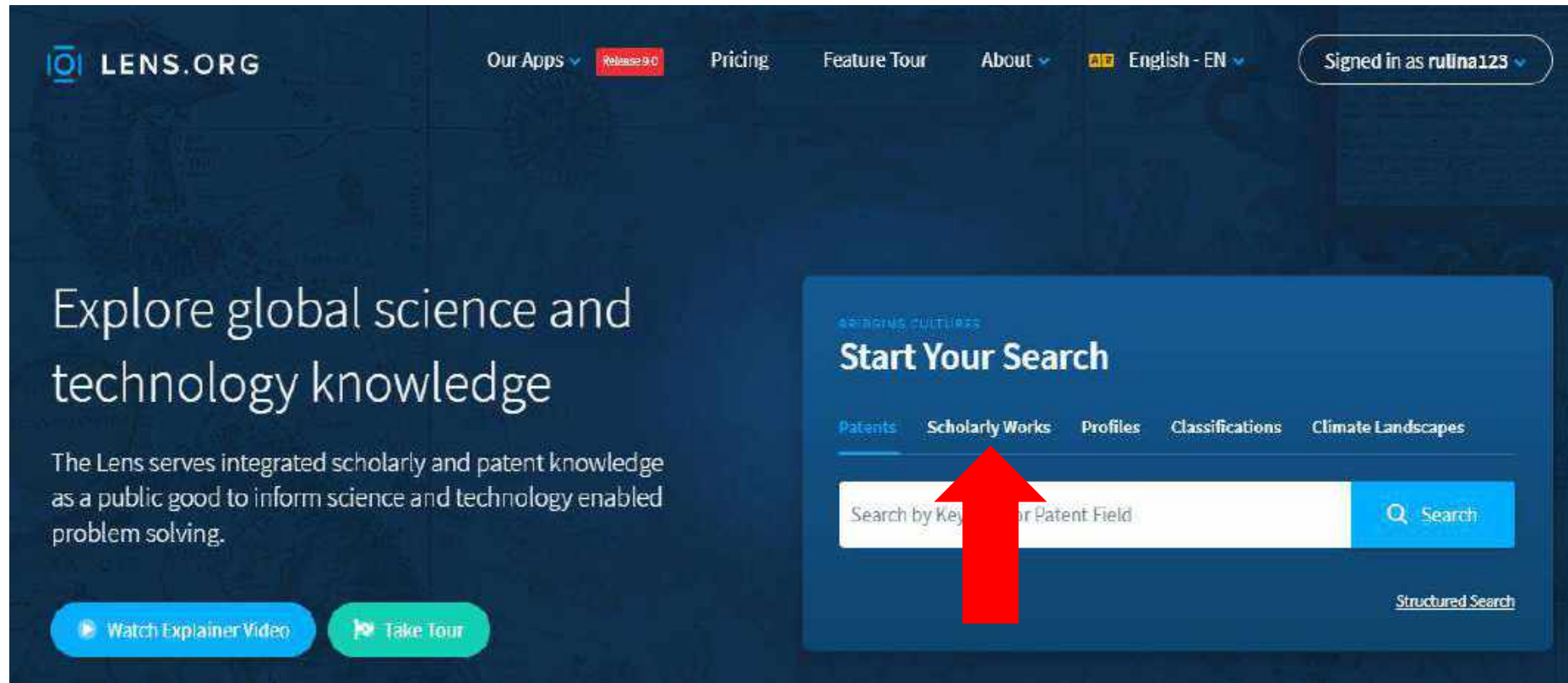
Database free:

- Lens
- Dimensions
- Google Scholar via Publish or Perish (PoP)
- dll.

- Perhatikan Scope/coverage
- Boleh menggunakan lebih dari 1 database
- Format file sesuai tools
SLR → Covidence: RIS file

Langkah menelusur di Lens database

1. Buka situs <https://www.lens.org/>. Klik register bila belum punya akun. Bila sudah punya klik Login
 2. Pilih “scholarly works” --> untuk menelusur publikasi mis. artikel jurnal, book, dll.
- lalu Klik search



268,089,561 Scholarly Works

Explore Science, Technology & Innovation... Search

Scholar Search Results

Hide Query Details Edit Search Search Patents

Scholarly Works (268,089,561) = All Docs

Filters: No filters applied

Scholarly Works	Works Cited by Patents	Citing Patents	Patent Citations	Works Cited by Scholarly
268,089,561	5,315,095	4,321,884	28,320,037	91,478,784

Scholarly Works Explore Citations Table List Analysis

Expand Customise List Save as Query Save as Collection Share Export Hide Analysis Date Published (newest)

3. Klik “edit search”
untuk menampilkan
structured search

ENS.ORG English - EN Our Apps Pricing About Work Area Signed in as nullna123 Support

268,089,561 Scholarly Works

Field All Fields e.g. malaria

Predicate: AND OR

Help Query Text Editor Full Screen Close

4. Pilih field pencarian dan masukkan search strings

Filter temuan sesuai dengan kriteria inklusi dan eksklusi (misal: tahun, jenis dokumen, jenis study, fullteks, dll)

LENS.ORG English - EN ▾ Our Apps ▾ Pricing About ▾ Work Area ▾ Signed in as rulina123 ▾ Support ▾

🏠 4,469 Scholarly Works (title:"microfinance*" OR "micro-finance*" OR "micro finance*" OR "microcredit*" OR "micro credit*" OR "micro-credit*" OR micro ? Search ▾)

FILTERS ①

- Date Range >
- Flags >
- Author >
- Institution >
- Institution Country/Region >
- Identifier Type >
- Funding >
- Journal >
- Conference Name >
- Document Type >
- Publisher >
- Subject Matter >
- Open Access >

Scholar Search Results

Scholarly Works Explore Citations ▾ ①
Table List Analysis

✓ Expand
≡ Customise List
💾 Save as Query
📁 Save as Collection
🔗 Share
📄 Export
🔍 Hide Analysis
⬆ Sort by Relevance

☐

MARKETING STRATEGY ANALYSIS OF MICRO FINANCING PRODUCT AT MICRO, SMALL AND MEDIUM ENTERPRISES (SMES) IN BRI SYARIAH TULUNGAGUNG

Unknown Document Volume: 5, Issue: 1, Pages: 137-150, Feb 21, 2019









Authors: Irfan Harmoko

Citing Patents: 0 Citing Scholarly Works: 0 Reference Count: 0 [195-312-699-495-931](#)

2954820079 [WorldCat](#)

Additional Info: [Abstract](#) [Field of Study](#)

Abstract match: compatible of sharia principle thats intend to increase the volume of financing especiallyin-micro, small and medium enterprises (SMEs ... of micro, small and medium enterprises (SMEs), that is the target market for the banking business... financing product bank BRI Syariah Tulungagung in micro, small and medium enterprises (SMEs

Institution Name	
 Bogor Agr... 15	 Internatio... 11
 World Bank 11	 Airlangga ... 9
 Jomo Ken... 9	 Universiti... 8
 Universit... 8	 Ceren Ea ... 7

Export hasil penelusuran dengan cara klik Export, lalu akan muncul kotak penawaran untuk memilih jumlah data yang dieksport, field, format file, dll.

Pilih format file RIS --> untuk screening dengan Covidence

The screenshot shows the LENS.ORG Scholar Search Results page. The top navigation bar includes the LENS.ORG logo, language selection (English - EN), and links for Our Apps, Pricing, About, Work Area, and Support. The user is signed in as rulina123. The search bar shows a query: (title:("microfinance*" OR "micro-finance*" OR "micro finance*" OR "microcredit*" OR "micro credit*" OR "micro-credit*" OR microb...). The search results are displayed in a table view. A red arrow points to the 'Export' button in the top navigation bar. The 'Export' button is located in the top right corner of the search results area, next to the 'Share' button. The 'Export' button is highlighted with a red arrow.

127 Scholarly Works

(title:("microfinance*" OR "micro-finance*" OR "micro finance*" OR "microcredit*" OR "micro credit*" OR "micro-credit*" OR microb...

Search

Scholar Search Results

Filters: 1

DATE RANGE

Flags

Author

Institution

Institution Country/Region

Scholarly Works

Explore Citations

Table

List

Analysis

Expand

Customise List

Save as Query

Save as Collection

Share

Export

Hide Analysis

Sort by Relevance

A bibliometric study on the role of micro-finance services in micro, small and medium enterprises

Institution Name

Seleksi dan Ekstraksi (tahap 3,4,5) Covidence

- Praktik
- Materi panduan menggunakan Covidence bisa diakses di:
<https://drive.google.com/drive/folders/1Mm1ScSEWrHPfMnMlw7cwiabJ8DTku4Ph?usp=sharing>

Analisis dan Sintesis (tahap 6)

SciSpace

- Praktik
- Materi panduan menggunakan SciSpace bisa diakses di:
https://drive.google.com/drive/folders/1_q-LN0fornuLy2LaPuDu24xU7Ag4ph_7?usp=sharing

Materi Pelengkap

- **Contoh publikasi dokinfo dengan metode SLR:**

<https://drive.google.com/drive/folders/1QIBZg80VvgBTp46TwKz0FwyDT9sJZpPC?usp=sharing>

- **Sistematika penulisan artikel dengan metode SLR:**

<https://drive.google.com/file/d/1xok0KeMlljLKLowbacEOyveyuy27sS0q/view?usp=sharing>

- **Contoh lembar kerja penelusuran literatur BRIN:**

https://docs.google.com/document/d/18RKhttpgu95XkiBPD5GhqP51_kbsjz_Gm/edit?usp=sharing&oid=100269291772911181853&rtpof=true&sd=true

- **Bahan bacaan terkait:**

<https://rmit.libguides.com/systematicreviews/introduction>

<https://drive.google.com/drive/folders/1wbeU8-Lxyl3ol-SzR4Mt9yuGkqyGBBg1?usp=sharing>

Daftar Pustaka

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Terima Kasih