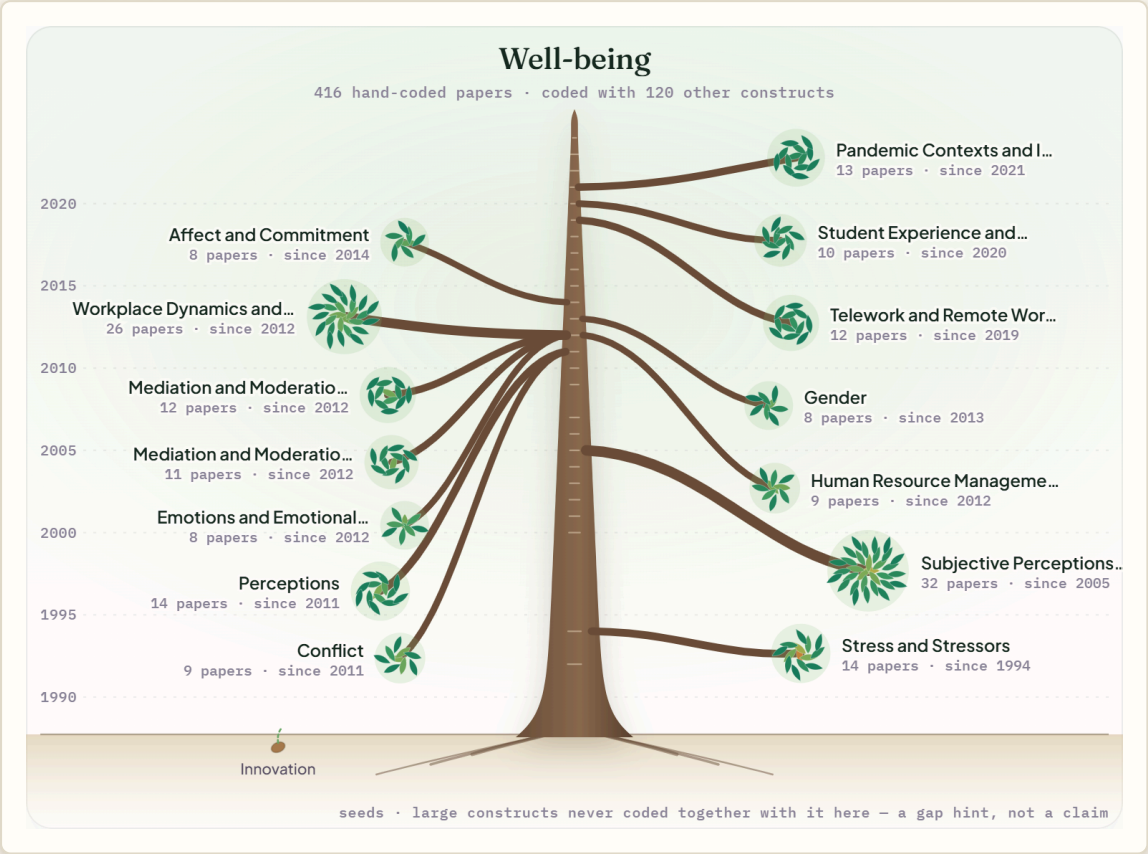

LAZY RESEARCH LAD HUB

One study, *start to finish*

The research home of Lazy Research Lad — the whole journey of one study in one map, and how to read the corpus of nine thousand hand-coded papers.

One study, *start to finish*

The front door, and the map of this series. Volumes 2–9 follow one illustrative study — burnout and engagement among nurses on long shifts — through every research decision. This volume shows the whole route on one page, then the corpus tree, the directory and the rules every tool follows.

Site. https://syahmedu.github.io/research-suite/

Version. 2.1.4 (2026–10–18) · build `3702b3b+edits` · 2026–10–18T15:45:22Z

Figures. Real screenshots of the live site, captured 2026–10–18 by `scripts/capture.mjs`; sample data shown in figures is labelled simulated where it is simulated.

Sources. 12 DOI-verified references, numbered in order of use. Nothing in this book is invented: counts and labels are read from the site or its published data.

Status. A user guide, not documentation of record. Where the site and this book differ, the site is right — please report it (see Version history).

Type. Fraunces, Plus Jakarta Sans and IBM Plex Mono (SIL Open Font License). Laid out with Paged.js.

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01

THE MAP OF THIS SERIES

One study, start to finish

Research is a chain of decisions. Each volume of this series takes one link of the chain, teaches the craft behind it, and uses one tool to do it — always on the same study, so the decisions add up.

THE WORKED STUDY

The question: *Why do nurses on long shifts burn out — and why do some of them stay engaged?* The study is illustrative, invented for teaching. Everything else is real: every theory, scale, count, paper and screen is the live suite, and the one dataset used for analysis is simulated from a stated model and labelled so.

VOL	THE DECISION	THE CRAFT	TOOL
2	Where does the study fit?	Positioning: what is known, what is thin, why it matters	Research Book
3	What does the evidence say?	Reading and weighing papers; direction is not size	PaperCards
4	Is the plan coherent?	Methodological fit; auditing an AI draft	ResearchFlow
5	Which theory explains it?	Choosing and defending a lens against its rivals	TheoryScope
6	How is each construct measured?	Definitions first; reliability; gaps in the library	ScaleScope
7	Does the prediction hold?	Plan, measurement model, the moderation test, honest reading	ToolsScope
8	Where should it go?	Fit before speed; formatting without inventing	JournalTime
9	Can others trust the process?	One record; the preregistration lock; the package	Studio

Read in order for the whole journey, or open the volume for the decision in front of you. Every volume ends its craft chapters the same way: the objections a reviewer will raise, and a model paragraph showing how the decision reads in a paper.

WATCH IT FIRST

Each site has a narrated tour (the ▶ Tour pill, bottom right) that follows the same study through that tool. The hub's tour is the whole journey in under two minutes.

02

WHAT THE HUB IS FOR

One place to continue

The hub is not a research tool itself. It is the front door: it tells you where your own work lives, what the libraries hold, and which tool fits the next step.

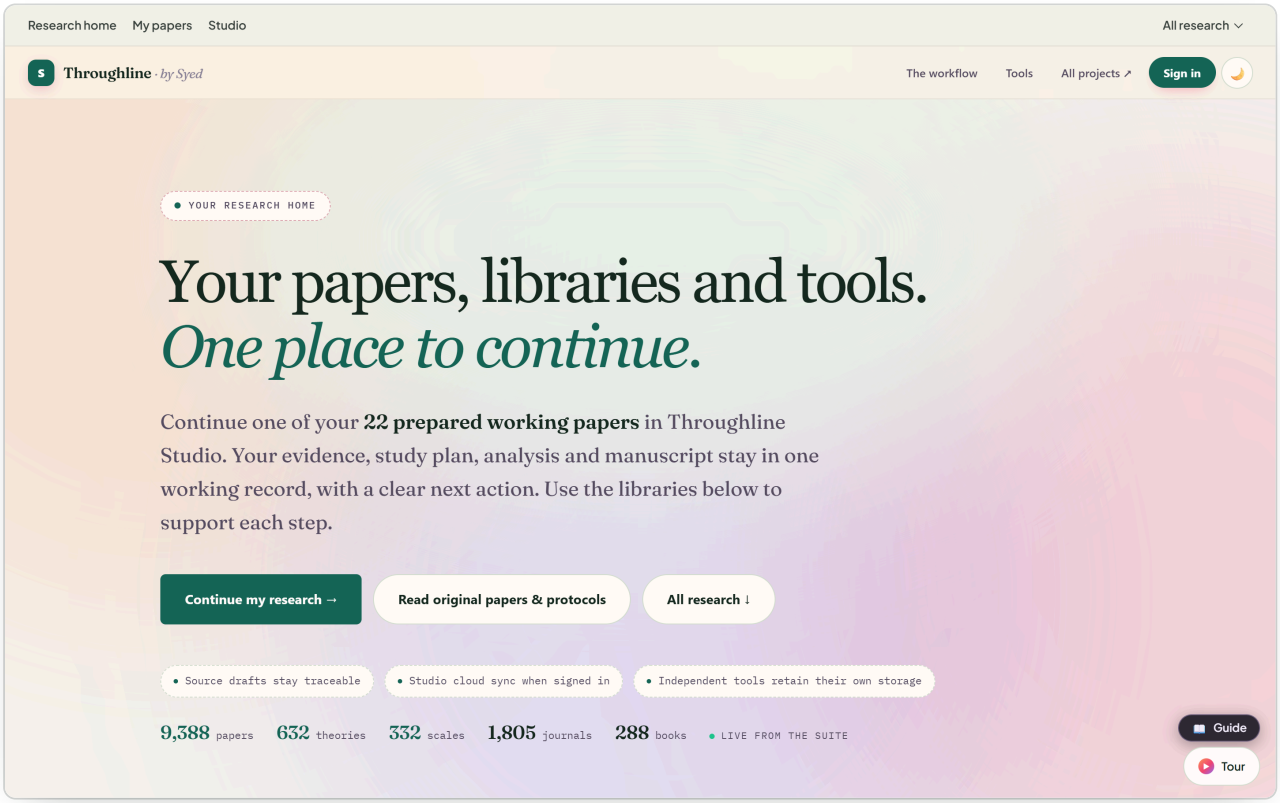


FIG 2.1 The hub on a desktop screen. The live counts under the buttons are read from each library's published data when the page loads.

1. `Continue my research →` opens Lazy Research Lad Studio, the main workspace.
2. `Read original papers & protocols` opens the archive of 22 working papers.
3. `All research ↓` scrolls to the directory of every destination.
4. Live counts — papers, theories, scales, journals, books.

The three ways in

- **Continue a study.** Studio holds your evidence, study plan, analysis and manuscript as one record, with a clear next checkpoint. Start here if you already have work in progress.
- **Read a prepared paper.** The archive holds 22 review drafts, 22 proposed study protocols and 17 ethics packs. Any of them can be opened in Studio as an editable study.
- **Use a library.** The Research Book, BookScope, TheoryScope and ScaleScope answer questions on their own — what has been studied, which theory fits, which scale measures it.

> **WHERE YOUR WORK IS SAVED**
>
> Independent tools keep their own storage. Signing in syncs Studio across devices; the other tools save in the browser you use them in. Moving work between tools happens through explicit hand-offs, never silently.

The live counts

The line of numbers under the hero (9,388 papers · 632 theories · 332 scales · 1,805 journals · 288 books) is not typed into the page. Each figure is read from the library's published snapshot when the page opens; if a snapshot cannot be reached, the last known figure stays in place.

03

THE FIRST VISUAL

Reading the corpus tree

Just below the hero, one construct from the hand-coded Research Book is grown as a tree. It answers a question every study starts with: what has this topic been studied with, since when, and how much?

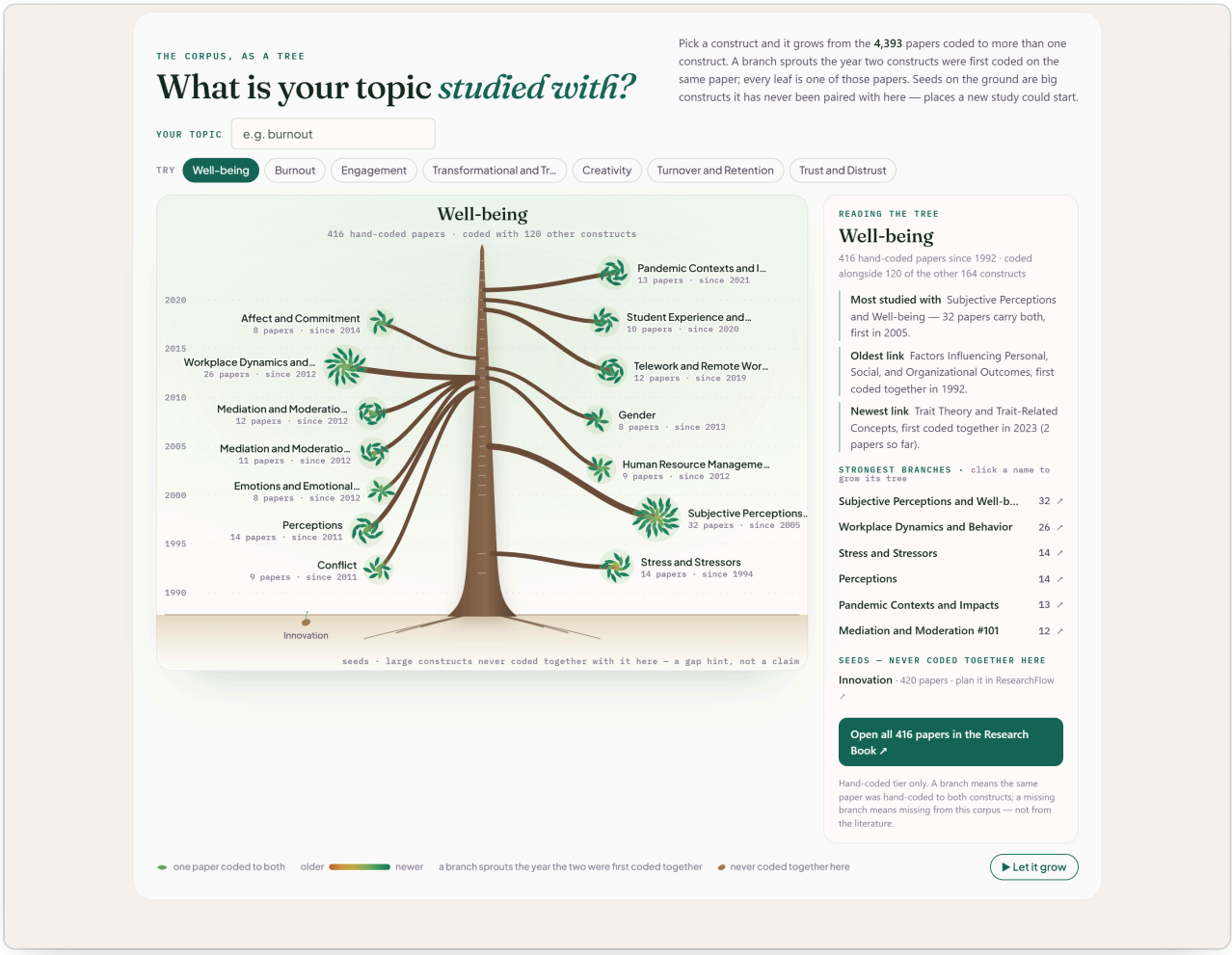


FIG 3.1 The corpus tree for Well-being, the default. The construct has 416 hand-coded papers since 1992 and is coded alongside 120 of the other 164 constructs. The thickest branch is Subjective Perceptions and Well-being, with 32 papers that carry both.

How the picture is built

The tree is drawn from the papers in the hand-coded tier that were coded to more than one construct, 4,393 of them, forming 4,119 distinct construct pairs. Pick a construct and it becomes the trunk. Every other construct that shares a paper with it can become a branch.

WHAT YOU SEE	WHAT IT MEANS
Trunk and its rings	Your construct. Height is time: faint lines mark every fifth year. Each ring across the trunk is one year, and its width is the number of hand-coded papers on the construct that year.
Where a branch sprouts	The year the two constructs were **first** hand-coded on the same paper.
Length and thickness of a branch	How many papers carry both constructs.
A leaf	One real paper coded to both. Colour is its year, from autumn amber (older) to spring green (newer); the oldest sit at the heart of the cluster.
Seeds on the ground	Among the 40 largest constructs, those never coded on the same paper as yours here.

> **HONEST DATA**
>
> Every count, year and title comes from the snapshot built from the hand-coded tier (`data/corpus-tree.json` , with one file of real papers per construct). The build checks that totals add up and that each pair is counted the same way from both ends. The side panel's sentences are filled in from the same file, never typed by hand.

Reading the side panel

Next to the tree, **Reading the tree** says in words what the picture shows. It gives the construct's paper count and first year, the construct it is most studied with, its oldest and newest links, and its six strongest branches with their joint-paper counts. Clicking a branch name re-grows the tree from that construct; the count beside it (↗) opens the papers coded to both in the Research Book.

Hovering and clicking

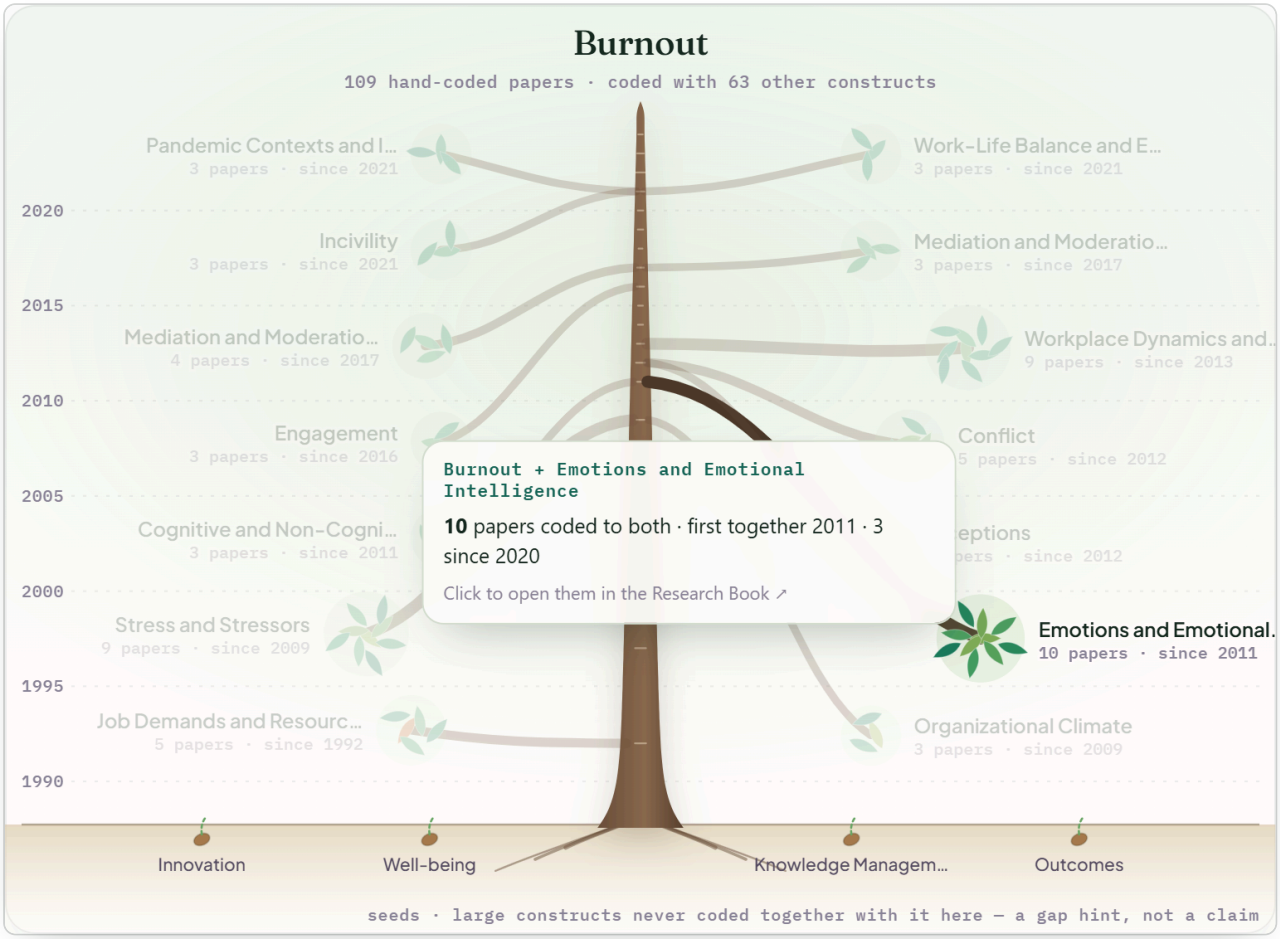


FIG 3.2 Hovering a branch reads the pair and fades the others: Burnout + Emotions and Emotional Intelligence, 10 papers coded to both, first together in 2011, 3 of them since 2020.

1. Rest on the trunk to read one year: the number of hand-coded papers on the construct, which is also the ring's width.
2. Rest on a branch or its leaves to read the pair: papers coded to both, the first year together, and how many are recent.
3. Rest on a single leaf for that paper's title, journal and year; click it to open the DOI.
4. Click a branch to open every paper coded to both constructs in the Research Book.

This follows the familiar sequence for exploring data: the overview first, then zoom and filter, then details on demand. The picture is always one step from the papers behind it.

Why it looks like this

Every visual in the suite follows the same handful of rules, and the tree shows them clearly.

The most important quantity gets the strongest channel. People judge position along a common scale more accurately than length, angle, area or colour; Cleveland and McGill established the ranking experimentally [1], Mackinlay built it into automatic chart design [2], and later crowdsourced studies replicated it [3]. In the tree, *time* is position up the trunk, read against faint year lines every five years. *How much* is shown twice: by a branch's length and thickness, and as a count of marks, since every leaf is one paper.

Colour is ordered, not a rainbow. A rainbow colour map has no natural order and creates false boundaries [4]. Leaf colour runs one continuous path from autumn amber (older papers) to spring green (newer). Each cluster keeps its oldest papers at the heart and its newest at the edge, so the order reads without a legend.

The simplest picture that shows the pattern. Guidelines for scientific figures ask for the simplest graph that conveys the message [5]. The tree draws only the strongest links: 14 branches on a desktop and 8 on a phone, preferring pairs with at least two joint papers. A branch carries at most its 90 most recent leaves. The side panel says what was left out, and every hidden link is one click away in the Research Book.

Overview, then the papers. Visualization design is about matching the idiom to the task [6]. The tree answers one question, *what is this studied with, since when, and how much?*, and every branch and leaf is one click from the papers behind it.

Evaluate with real tasks. Visualization research distinguishes understanding the data from enjoying the picture [7]. The tree replaced the earlier corpus river because a researcher could admire the river but not use it. The tree was checked against the questions a researcher brings, in light and dark themes and on a phone.

04

THE WORKED STUDY

Your topic, as a tree

Type a topic into **Your topic** and the tree re-grows from the construct that names it. The box mirrors the hub's Quick start, so one topic serves the whole page.

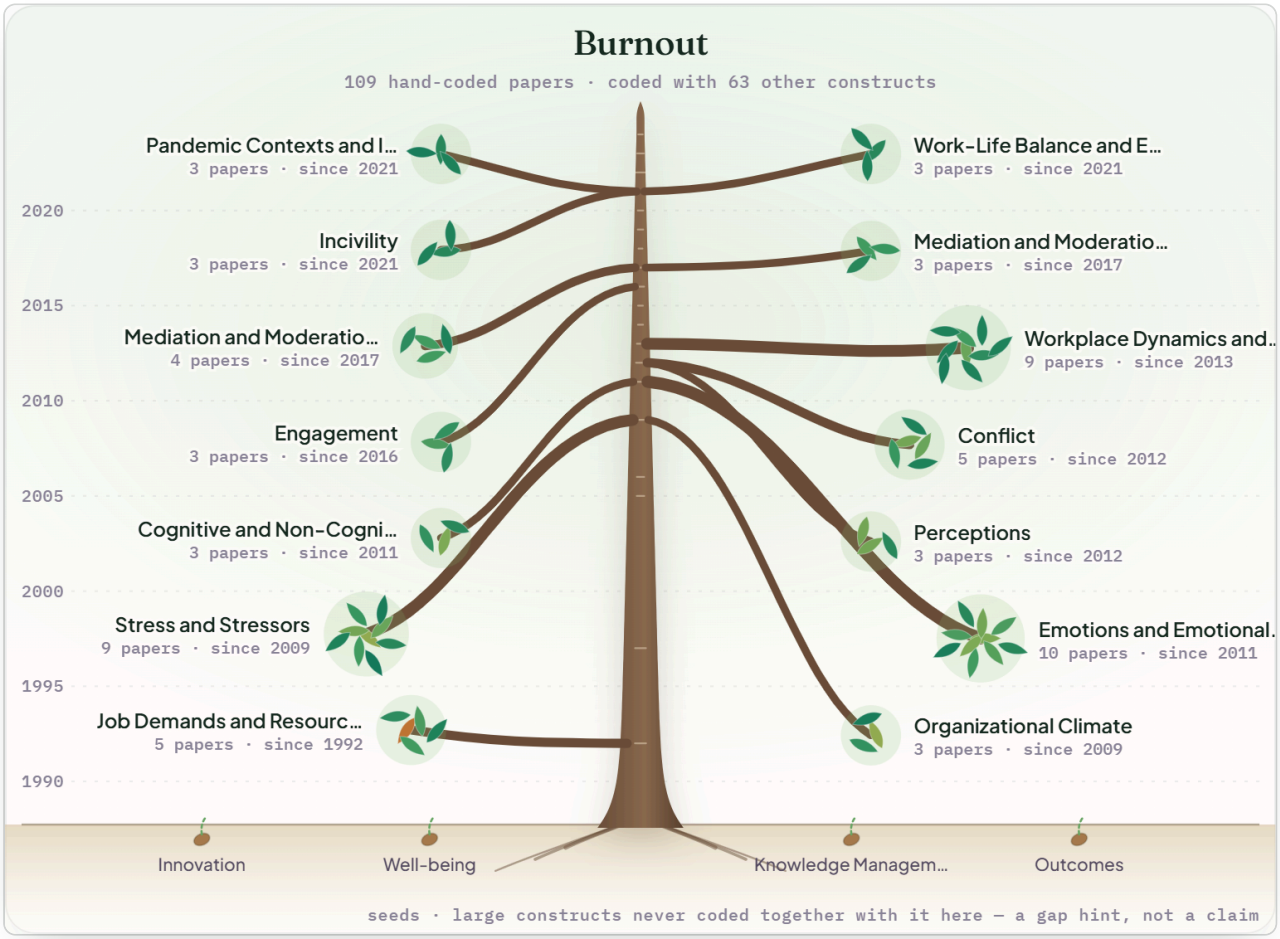


FIG 4.1 *burnout* typed into **Your topic**: Burnout has 109 hand-coded papers since 1992 and is coded alongside 63 other constructs. Fourteen branches are drawn, with 66 leaves, and four seeds lie on the ground.

THE WORKED EXAMPLE

For the series' study, the tree gives the first map of the literature in one screen:

THE TREE SAYS	WHAT IT MEANS FOR THE STUDY
Most studied with Emotions and Emotional Intelligence: 10 papers, first in 2011.	Emotion is the most crowded neighbour. The study should know that literature, but it is not where the gap is.
Oldest link: Job Demands and Resources, first coded together in 1992 (5 papers).	The study's lens has a long but thin record in this corpus. That is a reason to use it, and a reason to read all five papers.
Newest link: Job Performance, first in 2022 (2 papers so far).	An outcome only recently connected to burnout here: a possible extension, not this study's question.
Seeds: Innovation (420 papers), Well-being (416), Knowledge Management (331), Outcomes (264).	Large constructs never coded with burnout in this corpus. These are hints for future studies, to be checked in the wider literature before anyone calls them gaps.

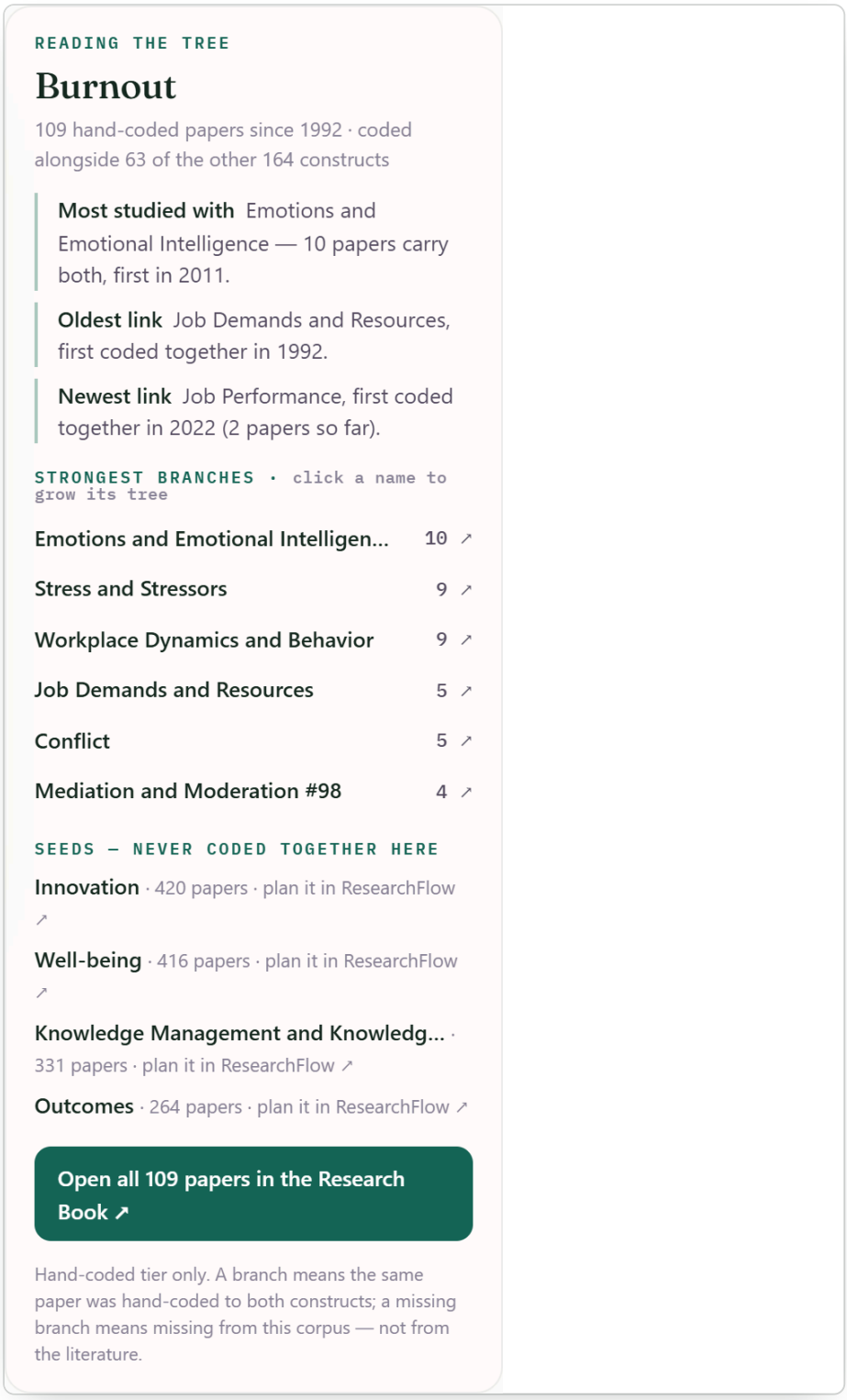


FIG 4.2 The side panel for Burnout: the computed reading, the six strongest branches and the seeds, each seed linked to ResearchFlow.

Each seed opens ResearchFlow with the pairing written as an idea, so a hint becomes a plan with a single click. Volume 2 checks what the Research Book holds on the chosen lens, and Volume 4 audits the plan.

READING CAREFULLY

A branch means the same paper was hand-coded to both constructs. A missing branch means missing from this corpus of 9,388 papers, not from the literature. Coding is by construct, so a paper on a topic can sit under a broader construct name; open the papers before drawing a conclusion.

TIP

When no construct carries your words, the box says so and keeps the last tree. Use the suggestions in the box, or one of the **Try** chips, to find the construct name the Research Book uses.

05

CALM BY DESIGN

Motion, accessibility and phones

The tree grows once, year by year, when it first scrolls into view: the trunk rises, branches sprout in the year they began, and leaves open in the order the papers appeared. Then it stays still.

Animation can help people follow a change, but it can also slow reading and hide detail [8,9]. So the tree keeps all of its information in the still picture. The growth simply replays the history the picture already shows.

If your device asks for less motion

When your operating system is set to reduce motion, the tree is drawn fully grown and still. A `▶ Let it grow` button under the tree replays the growth on request. The same kind of opt-in appears on every visual in the suite.

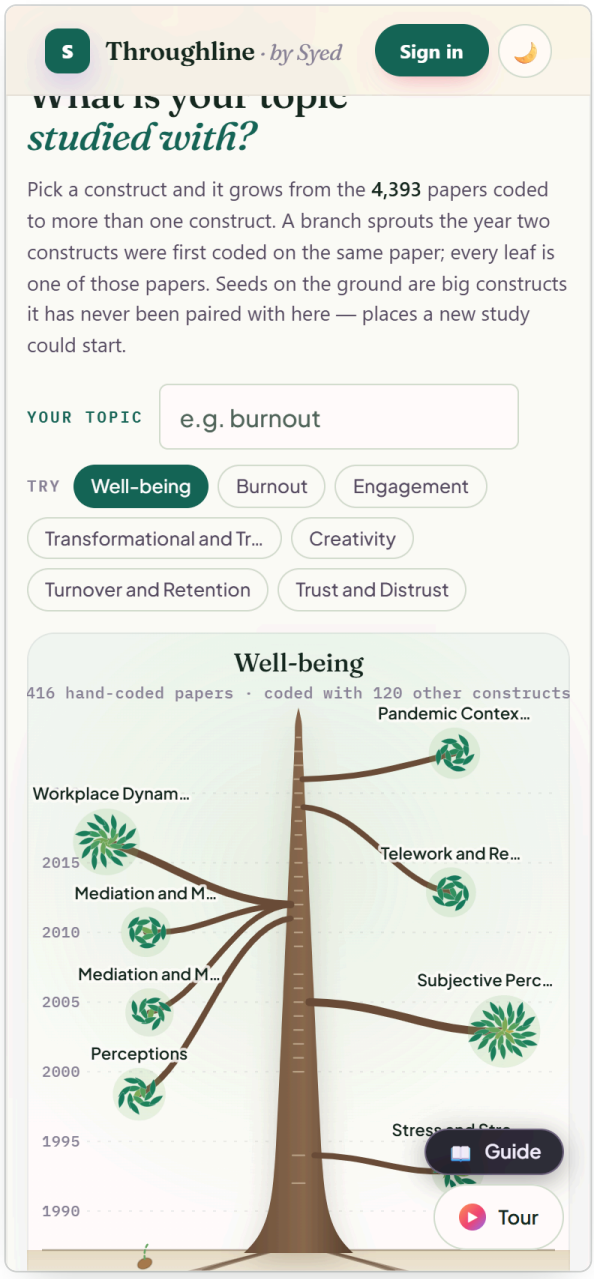


FIG 5.1 On a phone the tree keeps the same encodings, with 8 branches instead of 14, three seeds and shorter labels.

WHY IT MAY LOOK STILL

On Windows, *Settings → Accessibility → Visual effects → Animation effects* controls this. If the visuals look still on your computer, that setting is the usual reason.

06

EVERY DESTINATION

The research directory

Scroll past the tree to find every destination grouped by the job it does.

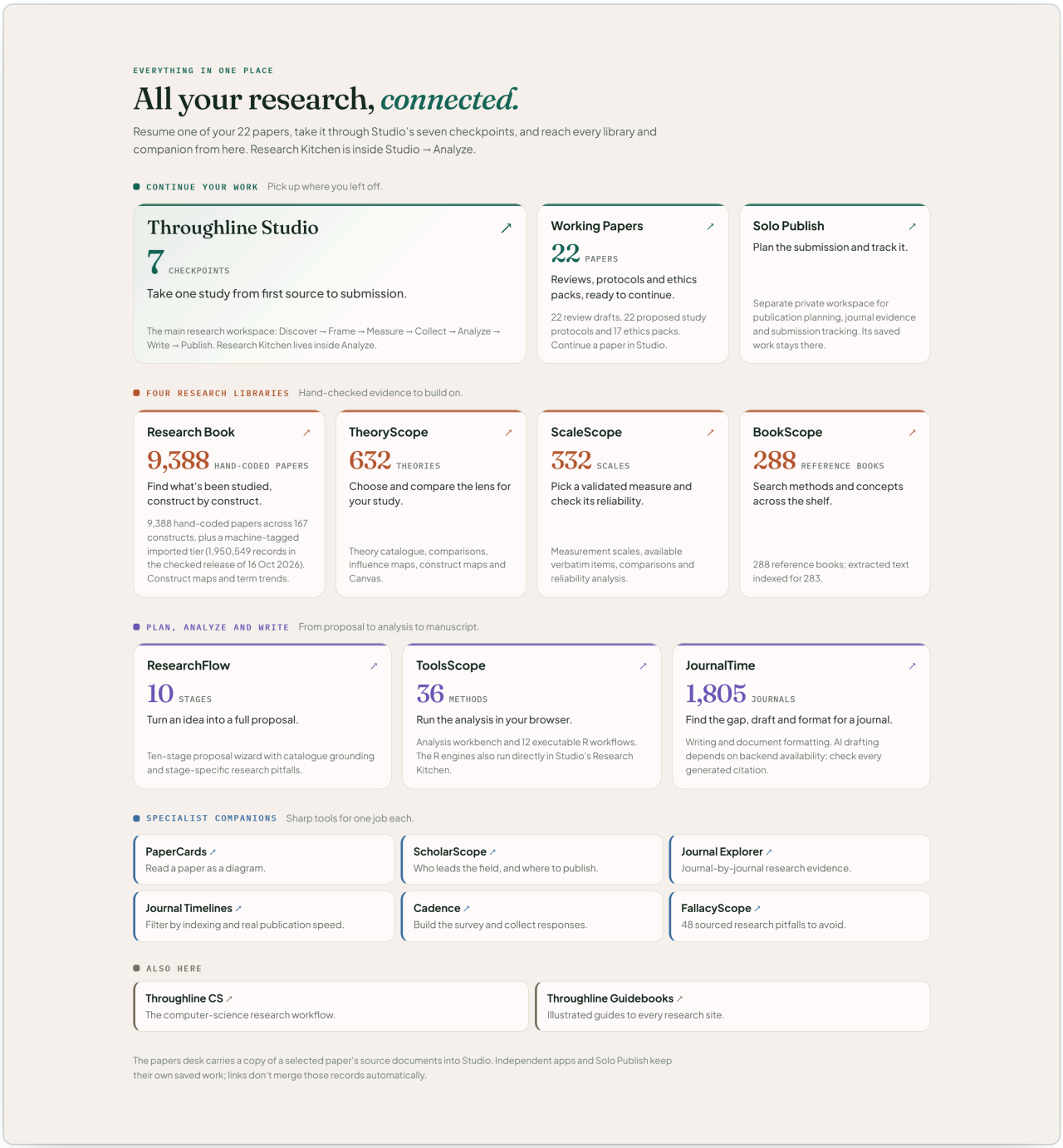


FIG 6.1 The research directory. Each card names the destination and what it holds; ↗ opens it.

GROUP	DESTINATIONS
Continue your work	Working Papers · Lazy Research Lad Studio · Solo Publish (separate private workspace)
Four research libraries	Research Book · BookScope · TheoryScope · ScaleScope
Plan, analyse and write	ResearchFlow · ToolsScope · JournalTime
Specialist companions	PaperCards · ScholarScope / Journal Explorer · Journal Explorer · Journal Timelines · Cadence · FallacyScope

Separate research workspace	Throughline CS (computer-science research)

Choosing where to start

I have a topic, nothing else
Use **Quick start** further down the hub: type one line and it routes you to the right first tool. Or open Studio and start a study.

I have a question to frame
ResearchFlow walks ten proposal stages; TheoryScope finds a lens.

I need a measure
ScaleScope — 332 scales with reported reliability and, where available, verbatim items.

I have data
ToolsScope runs the statistics in your browser.

I am writing
JournalTime drafts, targets a journal and formats the manuscript.

I want to read the field
The Research Book and PaperCards.

07

WHAT YOU CAN TRUST

Honesty rules across the suite

Every tool in the suite follows the same rule: research content is never invented.

- Theories, scales, citations, DOIs, authors, years and effect sizes are real and checked. Counts are reported as they are, even when small.
- Machine-matched or AI-assisted content is labelled — "machine-matched · verify", "AI · verify" — and never presented as hand-checked.
- Simulated sample data is labelled *simulated*.
- Visuals separate data from layout: where a position or grouping is a drawing choice, the caption says so.

> **FOUND AN ERROR?**
> If you find a number in the suite that does not match its source, that is a defect. Report it with the page and what you expected; corrections are made at the source and recorded.

The data foundations are open scholarly infrastructure: OpenAlex for works and authors [10], Crossref for DOI metadata [11], and the Scopus source list for journal coverage [12]. Each guidebook in this series names the sources behind its tool.

Glossary

Construct

A named concept a paper studies (for example *work engagement*). The Research Book codes each paper to one or more of 167 constructs.

Hand-coded tier

The 9,388 papers coded by hand over 24 months — the verified core of the Research Book.

Trunk

The construct you chose. Height is time; each ring across it is that construct's hand-coded papers in one year.

Branch

Another construct hand-coded on the same papers. It sprouts at the year the two were first coded together; its length and thickness grow with the number of papers that carry both.

Leaf

One real paper coded to both constructs of its branch. Hover for its title; click for its DOI.

Seed

A large construct never coded on the same paper as yours in this corpus: a hint of where a new study could start, not a claim about the wider literature.

Co-coded

Hand-coded to more than one construct. Only co-coded papers can make branches and leaves.

Working paper

One of the 22 prepared paper packages (review, protocol, ethics) that can be continued as a study in Studio.

References

Every reference was resolved by its DOI against Crossref (or DataCite) and matched on first author and year before it could be cited — 12 sources in this volume. Verification date per entry is kept in `references/verified.json`.

1 Cleveland, W. S., & McGill, R. (1984). Graphical Perception: Theory, Experimentation, and Application to the Development of Graphical Methods. Journal of the American Statistical Association, *79*(387), 531–554. https://doi.org/10.1080/01621459.1984.10478080

2 Mackinlay, J. (1986). Automating the design of graphical presentations of relational information. ACM Transactions on Graphics, *5*(2), 110–141. https://doi.org/10.1145/22949.22950

3 Heer, J., & Bostock, M. (2010). Crowdsourcing graphical perception. Proceedings of the SIGCHI Conference on Human Factors in Computing Systems, 203–212. https://doi.org/10.1145/1753326.1753357

4 Borland, D., & Taylor II, R. M. (2007). Rainbow Color Map (Still) Considered Harmful. IEEE Computer Graphics and Applications, *27*(2), 14–17. https://doi.org/10.1109/MCG.2007.323435

5 Kelleher, C., & Wagener, T. (2011). Ten guidelines for effective data visualization in scientific publications. Environmental Modelling & Software, *26*(6), 822–827. https://doi.org/10.1016/j.envsoft.2010.12.006

6 Munzner, T. (2014). Visualization Analysis and Design. A K Peters/CRC Press. https://doi.org/10.1201/b17511

7 Lam, H., Bertini, E., Isenberg, P., Plaisant, C., & Carpendale, S. (2012). Empirical Studies in Information Visualization: Seven Scenarios. IEEE Transactions on Visualization and Computer Graphics, *18*(9), 1520–1536. https://doi.org/10.1109/TVCG.2011.279

8 Robertson, G., Fernandez, R., Fisher, D., Lee, B., & Stasko, J. (2008). Effectiveness of Animation in Trend Visualization. IEEE Transactions on Visualization and Computer Graphics, *14*(6), 1325–1332. https://doi.org/10.1109/TVCG.2008.125

9 Heer, J., & Robertson, G. (2007). Animated Transitions in Statistical Data Graphics. IEEE Transactions on Visualization and Computer Graphics, *13*(6), 1240–1247. https://doi.org/10.1109/TVCG.2007.70539

10 Priem, J., Piwowar, H., & Orr, R. (2022). OpenAlex: A fully-open index of scholarly works, authors, venues, institutions, and concepts. arXiv. https://doi.org/10.48550/arXiv.2205.01833

11 Hendricks, G., Tkaczyk, D., Lin, J., & Feeney, P. (2020). Crossref: The sustainable source of community-owned scholarly metadata. Quantitative Science Studies, *1*(1), 414–427. https://doi.org/10.1162/qss_a_00022

12 Baas, J., Schotten, M., Plume, A., Côté, G., & Karimi, R. (2020). Scopus as a curated, high-quality bibliometric data source for academic research in quantitative science studies. Quantitative Science Studies, *1*(1), 377–386. https://doi.org/10.1162/qss_a_00019

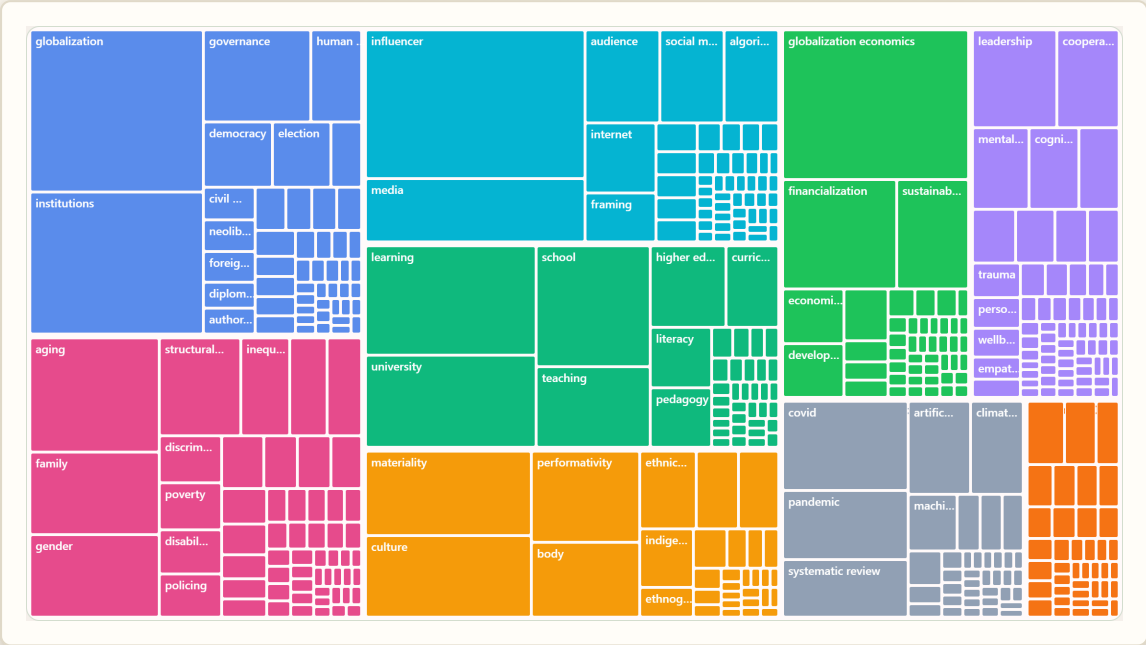
Version history & errata

This guidebook is version-controlled. Corrections are made in its source, the version number is raised, and the change is recorded here and in `CHANGELOG.md`. Report an error with the page number and the version printed in the footer.

VERSION	DATE	CHANGES
2.1.4	2026-10-18	Series back to 13 volumes (Throughline CS dropped: a separate product, not one of the Lazy Research Lad sites): covers and title pages now read 'of 13'. Text and figures unchanged.
2.1.3	2026-10-18	Series grows to 14 volumes (ScholarScope, Cadence, FallacyScope and Throughline CS added): "of 14" on the cover and title page; content unchanged.
2.1.2	2026-10-18	Series grows to ten volumes: Volume 10 (BookScope) added, so covers and title pages now read 'of 10'. Text and figures unchanged.
2.1.1	2026-10-18	Suite renamed: Throughline is now Lazy Research Lad (series, titles and text). Screenshots unchanged.
2.1.0	2026-10-17	Interior rewritten for the corpus tree, which replaced the river on the live hub: the reading chapter, a new worked-study chapter on burnout's tree, motion and phones, glossary and design notes. Figures recaptured 17 October 2026.
2.0.1	2026-10-17	Light cover edition: paper-cloth cover with the volume's accent spine and the live figure as a plate, captured in light theme 17 October 2026.
2.0.0	2026-10-17	Rewritten as the series map: the worked study's route through Volumes 2–9, the river's computed finding and topic box, the redesigned research directory, and the suite's honesty rules. All figures recaptured 17 October 2026.
1.0.0	2026-10-16	First edition. Figures captured 16 October 2026 from the live site.

Errata

VERSION	WHERE	CORRECTION
2.1.0	Ch 3–5 (river chapters replaced)	Interior rewritten for the corpus tree, which replaced the river on the live hub: the reading chapter, a new worked-study chapter on burnout's tree, motion and phones, glossary and design notes. Figures recaptured 17 October 2026.



RESEARCH BOOK

Find your place in the *literature*

Syed's Research Book — how to map what has been studied, find the thin places, and write a contribution you can defend, with 9,388 hand-coded papers and the corpus around them.

Find your place in the *literature*

A working guide to the literature review as an argument, not a list. The study from Volume 5 asks where it fits: what the field already knows about burnout, autonomy and job demands, which combinations are well trodden, which are thin — and how to say so without claiming that nobody has ever looked.

Site. https://syeds-research-book.vercel.app/

Version. 2.0.5 (2026–10–18) · build `3702b3b+edits` · 2026–10–18T15:45:22Z

Figures. Real screenshots of the live site, captured 2026–10–18 by `scripts/capture.mjs`; sample data shown in figures is labelled simulated where it is simulated.

Sources. 15 DOI-verified references, numbered in order of use. Nothing in this book is invented: counts and labels are read from the site or its published data.

Status. A user guide, not documentation of record. Where the site and this book differ, the site is right — please report it (see Version history).

Type. Fraunces, Plus Jakarta Sans and IBM Plex Mono (SIL Open Font License). Laid out with Paged.js.

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Turn the gap into a problem 11

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01

BEFORE YOU SEARCH

What a literature section has to do

A literature review is not a summary of everything you read. It is the argument that your study needed doing — and it is judged by whether a reader finishes it already expecting your question.

Two moves dominate how management papers position themselves. The common one is **gap-spotting**: find something not yet studied and fill it. The stronger one is **problematization**: find an assumption the literature takes for granted and show why it may not hold [1,2]. Gaps are easy to find and easy to dismiss — "not yet studied" is not the same as "worth studying". A contribution persuades when it connects to an ongoing conversation and shows what that conversation is missing or getting wrong [3].

Structure helps. A review organised around **concepts** rather than authors lets the reader see what is known about each construct and each link [4]; an integrative review then synthesises across them rather than listing [5,6].

A LITERATURE SECTION EARNS ITS PLACE WHEN…

- [ ] The review is organised by concepts and links, not by author or date.
- [ ] It shows what is well established — and cites it, briefly.
- [ ] It identifies something thin, contested or taken for granted, with evidence for that judgement.
- [ ] It explains why that matters for theory or practice, not only that it is missing.
- [ ] It ends where my research question begins.
- [ ] Every "few studies" claim was checked in more than one database.

THE WORKED EXAMPLE — CONTINUED

The study (Volumes 5–7) tests whether job autonomy buffers the link between long shifts and burnout among nurses, using the JD-R model. To position it, it needs answers to three questions: **what is well established**, **what is thin**, and **why the thin part matters**.

02

LIBRARY

Map the territory

Start broad, in the tier you can trust most, then widen. The goal of the first pass is a sense of size and shape, not a reading list.

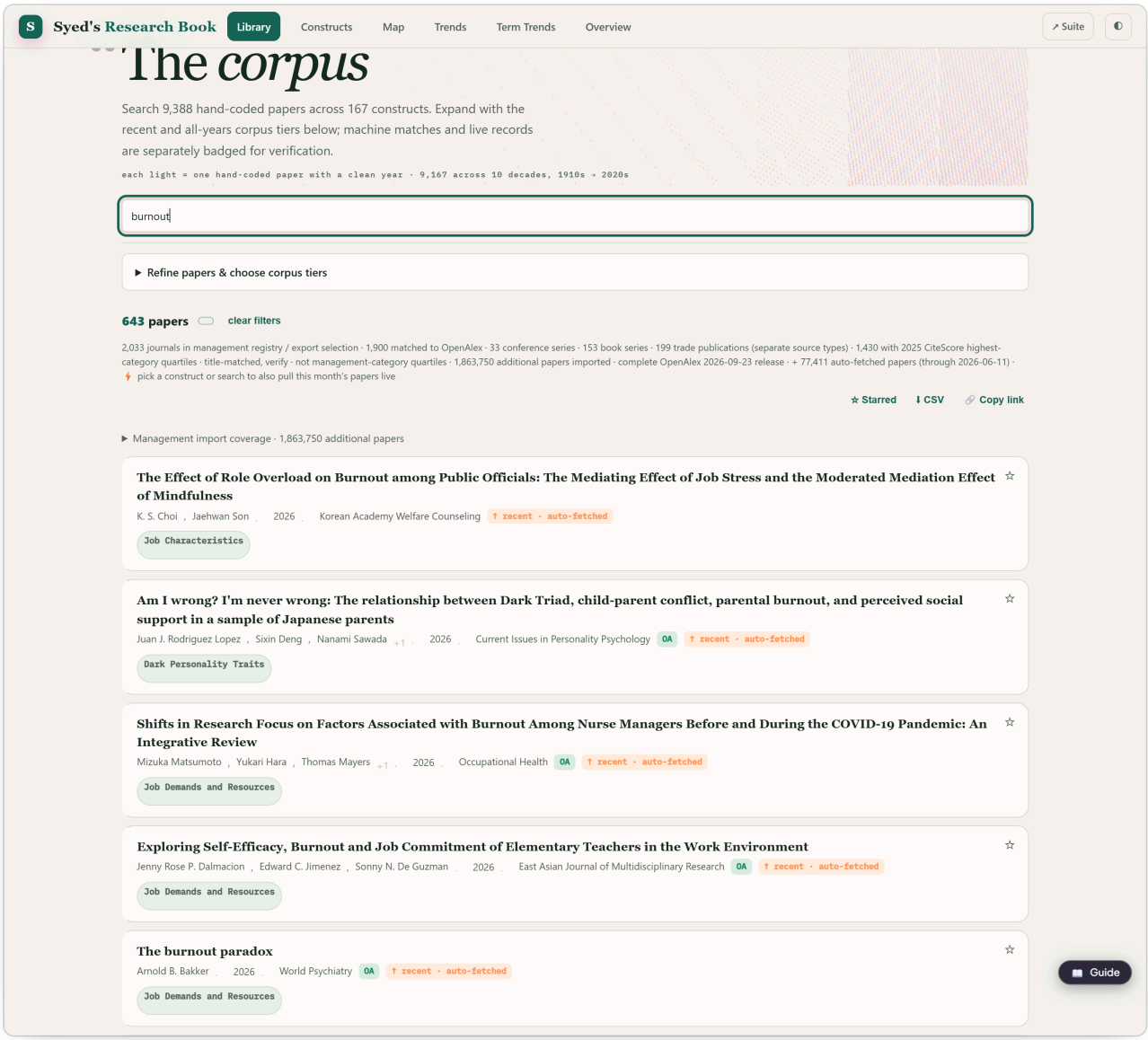

FIG 2.1 The Library searched for *burnout*: 643 papers across the hand-coded and recent tiers that load by default. Recent-tier cards carry the **↑ recent · auto-fetched** badge and their machine-assigned construct.

Counting by title in each tier gives a first map of the study's three ingredients:

TITLES CONTAINING…	HAND-CODED (9,388)	RECENT, 2024 ON (77,411)
burnout	109	—
burnout + nurse	8	56
burnout + autonomy	0	3
burnout + shift	—	3
burnout + nurse + autonomy	0	0

HOW THESE COUNTS WERE MADE

Title counts were computed from the Book's published index files, matching *burnout*, *nurs*, *autonom* and *shift* in titles only. Abstracts often mention what titles do not — which is why Chapter 3 uses the abstract-level matches, and why a zero here is a prompt to search, not a finding.

Already the picture has a shape. Burnout among nurses is a busy topic — 56 recent titles name both. Autonomy is rarely in the same title as burnout, and never with nurses. That is a lead about *where to look*, not yet a gap.

1. Search one construct at a time and note the counts per tier.
2. Open `Refine papers & choose corpus tiers` and add the all-years import when you need the older literature.
3. Star the papers that will anchor each section; `CSV` exports the filtered list for your reference manager.
4. `Copy link` saves the exact view, so a co-author sees the same papers.

03

THE MAP'S MATRIX

See what travels together

A literature has a shape: some constructs are almost always studied together, some rarely. The Matrix counts it.

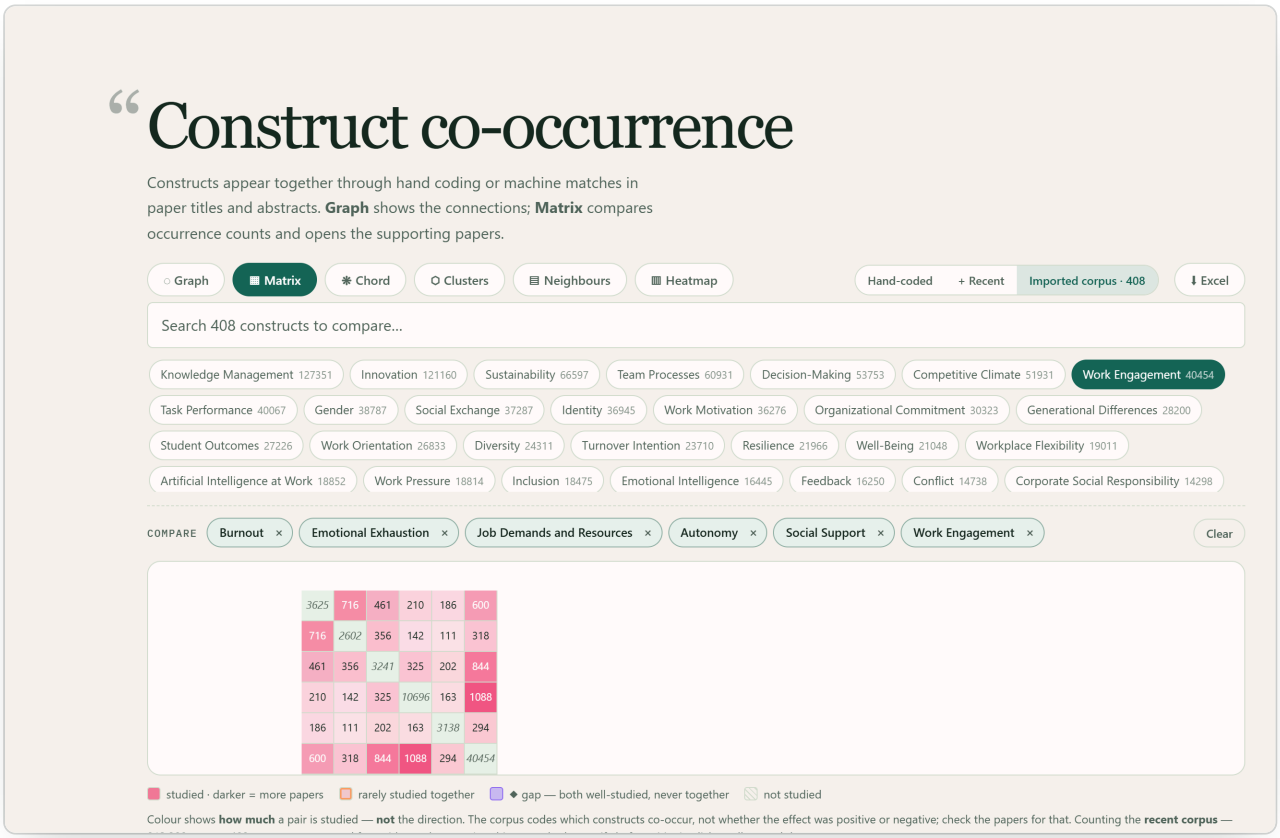

FIG 3.1 Map → Matrix over the *Imported corpus · 408* tier, with six constructs picked in this order: Burnout, Emotional Exhaustion, Job Demands and Resources, Autonomy, Social Support, Work Engagement. Diagonal = papers matching each construct; each cell = papers matching both. Machine-matched · verify.

PAIR (ABSTRACT-LEVEL, IMPORTED CORPUS)	PAPERS WITH BOTH	LIFT
Burnout × Emotional Exhaustion	716	61.7
Burnout × Job Demands and Resources	461	31.9

Burnout × Social Support	186	13.3
Autonomy × Job Demands and Resources	325	7.6
Burnout × Autonomy	210	4.4
Burnout × Work Engagement	600	3.3

Read the lift, not only the count. Burnout and JD-R appear together 32 times more often than their sizes alone would predict — a tightly connected conversation, the one the study joins. Burnout and autonomy co-occur in 210 papers, but at a lift of only 4.4: autonomy is a very large, general construct (10,696 matching papers), and only a small fraction of it is discussed alongside burnout.

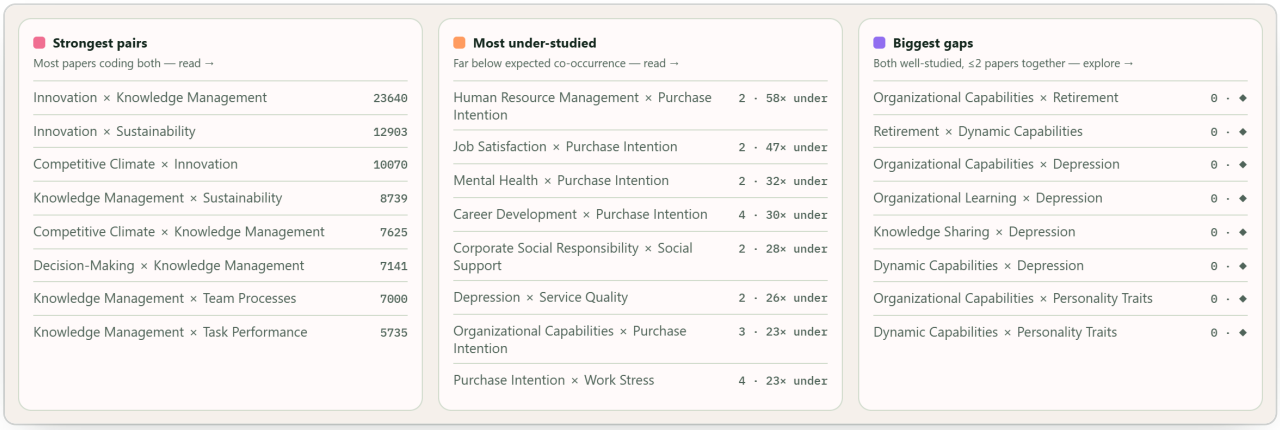

FIG 3.2 The Leads panel under the Matrix, for the whole imported corpus: the strongest pairs, the most under-studied (well below expected co-occurrence) and the biggest gaps (two well-studied constructs never matched together). Each row opens the papers.

WHAT A COUNT MEANS

Counts come from word-for-word matches of construct names in titles and abstracts. They say two ideas were *mentioned* on the same paper — not that the paper measured both, or found that one affects the other. The Map colours how much a pair is studied, never the direction of an effect.

04

TRENDS

Is the conversation growing?

A thin area of a shrinking conversation is a harder sell than a thin area of a growing one. Check the direction of travel.

Shares of the hand-coded corpus, comparing 2015–18 with 2020–23 (each paper split equally across its constructs, so nothing is counted twice):

CONSTRUCT (HAND-CODED)	SHARE 2015–18	SHARE 2020–23
Burnout and its various dimensions	0.37%	0.78%
Job Demands and Resources	0.30%	0.52%
Autonomy in various contexts	0.29%	0.33%
Engagement in various contexts	3.01%	2.18%

Burnout's share of the corpus roughly doubled and JD-R grew; autonomy held steady. The bases are small — burnout carries the weight of about six papers in the earlier window and 33 in the later — so read these as a direction, not a precise rate. The Trends view shows the same series year by year; the hub's river shows them as currents.

WORKED EXAMPLE

Positioning so far. The burnout–JD-R conversation is large and growing. Within it, autonomy is discussed far less often with burnout than its size would suggest, and almost never in nursing titles. The study therefore joins a busy conversation through a thin door — which is a good place to be, *if* the reason it is thin can be argued.

05

READING THE PAPERS

From counts to a claim

Counts tell you where to read. Only reading tells you what the papers say — and whether your "thin" area is really thin or just named differently.

1. Click the Burnout × Autonomy cell to open the 210 papers behind it.
2. Read the abstracts: how many actually *measure* both, and how many test autonomy as a buffer?
3. Search the synonyms the field uses — *job control*, *decision latitude* — before concluding anything is missing. JD-R's ancestor, the demand–control model, used exactly that vocabulary [7].
4. Repeat the search in the field's own databases. This corpus was built for management and organisational behaviour; nursing studies live mostly in health databases.
5. Only then write the positioning, with the evidence for it.

ABSENCE IS NOT EVIDENCE

"No study has examined…" is the riskiest sentence in a literature review. A reviewer only needs one counter-example. Prefer "relatively few studies…", report how you searched, and let the argument rest on *why* the thin area matters.

Turn the gap into a problem

A stronger framing asks what assumption makes the thin area thin. JD-R treats job resources as broadly interchangeable buffers [8]. If autonomy is constrained by the very rosters that create long shifts, that interchangeability is worth questioning — a problematizing move [2] that gives the study a reason, not just a vacancy.

06

THE OBJECTIONS YOU WILL MEET

Defend it

Reviewers test positioning hardest. Answer these before they ask.

REVIEWER	YOUR ANSWER
"This gap only exists because of the keywords you searched."	Show the synonyms you searched (job control, decision latitude, self-scheduling), the databases, and the dates. Report counts, not "none".
"Your corpus is management-focused; nursing research is elsewhere."	Agree: the Research Book scoped the management literature. State that the nursing databases were searched separately and report what they added.
"Co-occurrence counts are not evidence that the relationship is understudied."	Correct — they guided where to read. The claim rests on reading the papers: how many measured both, and how many tested autonomy as a moderator.
"So what if it is understudied?"	Give the reason: the assumption that resources are interchangeable buffers [8], and what it would mean for nurses if autonomy cannot buffer the demand that rosters themselves create.

07

FROM MAP TO PROSE

Write the positioning

The positioning paragraph closes the literature review: what is known, what is thin, why it matters, and what this study does about it.

1. **Established:** the conversation you join, briefly, with its anchor citations.
2. **Thin or assumed:** what that conversation leaves out or takes for granted — with how you know.
3. **Why it matters:** the consequence for theory or practice.
4. **This study:** one sentence that answers the gap, leading straight into the research question.

MODEL PARAGRAPH

The Job Demands–Resources model holds that job resources buffer the effect of demands on strain [9,8], and burnout research has drawn on it increasingly: in a 9,388-paper corpus of management and organisational-behaviour research used to scope this review, burnout's share of papers roughly doubled between 2015–18 and 2020–23.

Autonomy features far less in this conversation than its prominence elsewhere would suggest, and studies of nurses rarely examine it as a buffer of the demands that shift rosters create. Because rosters may constrain the very autonomy that is expected to protect nurses, treating resources as interchangeable buffers may overstate their protective value. We therefore test whether autonomy buffers the association between shift length and burnout.

Model paragraph for the illustrative study. The corpus figures are real counts from the Research Book; the "far less" judgement must be backed by the full search described in Chapter 5 before it is published. Adapt the structure, not the claims.

BEFORE YOU SUBMIT THE SECTION

- [ ] The established conversation is cited from its primary sources.
- [ ] The thin area is described with how it was searched, not asserted.
- [ ] The reason it matters is stated, not implied.
- [ ] The final sentence leads directly into the research question.
- [ ] No sentence says "no study has…".

08

REFERENCE

The Research Book at a glance

The tiers, views and conventions — for when you know what you want and need to find where it lives.

TIER	WHAT IT IS	HOW IT IS MARKED
Hand-coded	9,388 papers × 167 constructs, coded by hand and Scopus-graded.	No badge — the verified core.
Recent	Real OpenAlex works from 2024 on [10]; machine-assigned constructs.	↑ recent · auto-fetched
All-years import	Registry journal records across all years; opt-in.	Imported · machine tags · verify
Live	The newest ~45 days, fetched as you search.	⚡ live

VIEW	USE IT TO…
Library	Search and filter papers; star, export CSV, copy a shareable link. URL parameters (`q` , `construct` , `year` , `ymin` , `ymax` , `journal` , `author` …) open exact views.
Constructs	Browse the 167 hand codes with their identifiers and papers; switch to machine-extracted phrases.
Map	Graph · Matrix · Chord · Clusters · Neighbours · Heatmap over three tiers; `⬇ Excel` exports the counts.
Trends	Construct × year heatmap; `Counts | Share of year` .
Term Trends	425 terms across nine OpenAlex subfields; scrub, play, or the `◧ Quadrant` growth × novelty view.
Overview	The corpus as a landscape: provenance, tide, bedrock, canopy, voices, echo.

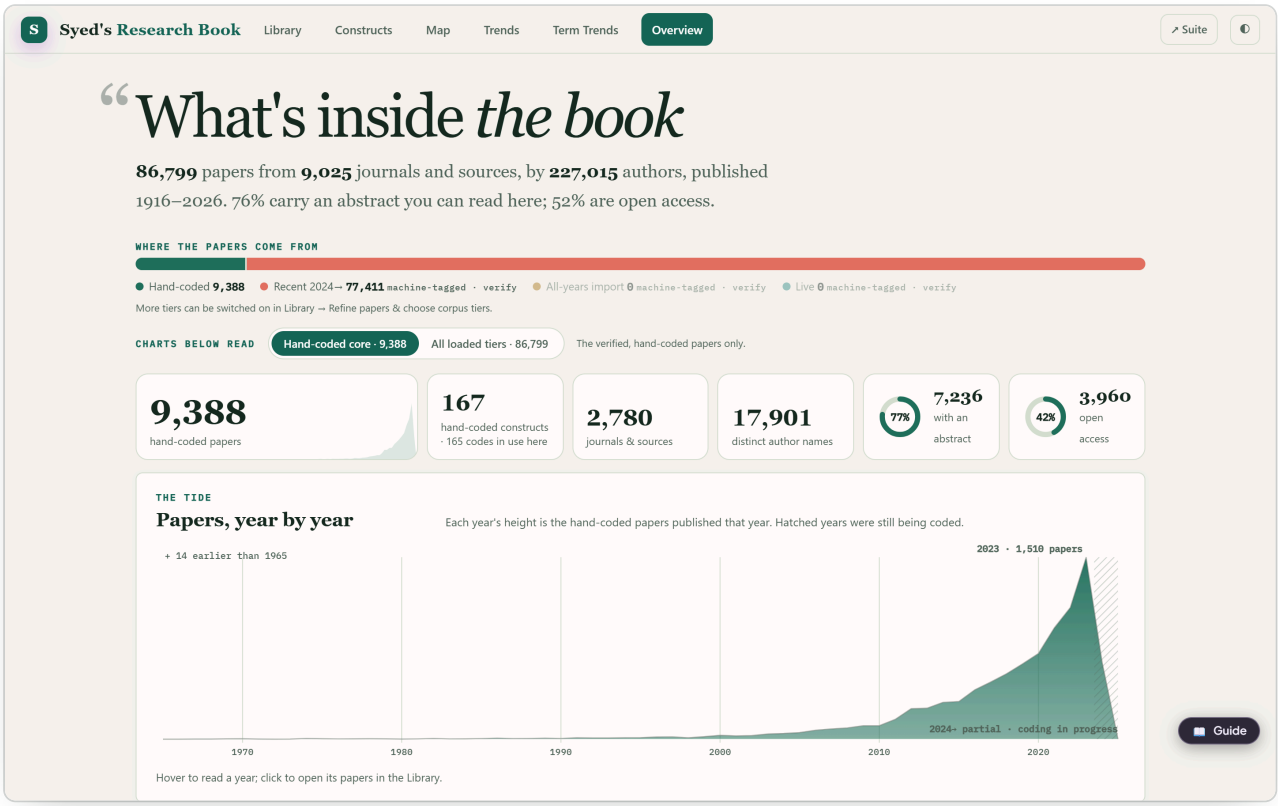

FIG 8.1 The Overview, hand-coded lens. Every number and mark is computed from the papers currently loaded.

WHERE THE RECORDS COME FROM

Journal ranks come from the Scopus source list and CiteScore quartiles [11]; DOI metadata is cross-checked against Crossref [12]. Repository and dataset deposits are removed from the recent tier by venue and by DOI registrant. Cite the paper, not the Book: open the record, follow its DOI and read the source.

Why it looks like this

The Book offers several pictures of the same counts because each answers a different question best [13]. A node-link graph shows the overall web but is hard to read exactly; the Matrix gives the exact count for a chosen pair; the Heatmap orders constructs so that groups appear as blocks.

The Trends heatmap uses a single-hue scale, light to dark, so that darker always means more — rather than a rainbow, which has no inherent order [14]. Exact values are always one click away, because colour and area are among the least accurate channels for reading quantities [15].

Glossary

Gap-spotting

Positioning a study by pointing to something not yet studied. Useful, but weak on its own: a gap is not a reason [1].

Problematization

Positioning a study by questioning an assumption the literature takes for granted [2].

Co-occurrence

Two constructs coded (or machine-matched) on the same paper. Counts, not effects: they say nothing about direction or strength.

Lift

Observed co-occurrence divided by what the two constructs' sizes alone would predict. Above 1: studied together more than chance; well below 1: rarely together.

Hand-coded tier

9,388 unique papers coded by hand to 167 constructs over 24 months and Scopus-graded. The verified core.

Recent tier

Real OpenAlex records from 2024 onward (77,411 after the October 2026 purge), machine-assigned constructs; badged **↑ recent · auto-fetched**.

Imported corpus · 408

A cleaned lexicon of 408 constructs matched word-for-word in titles and abstracts of the recent and all-years management tiers. Machine-matched · verify.

References

Every reference was resolved by its DOI against Crossref (or DataCite) and matched on first author and year before it could be cited — 15 sources in this volume. Verification date per entry is kept in `references/verified.json`.

1 Sandberg, J., & Alvesson, M. (2011). Ways of constructing research questions: gap-spotting or problematization?. Organization, *18*(1), 23–44. https://doi.org/10.1177/1350508410372151

2 Alvesson, M., & Sandberg, J. (2011). Generating Research Questions Through Problematization. Academy of Management Review, *36*(2), 247–271. https://doi.org/10.5465/amr.2009.0188

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4 Webster, J., & Watson, R. T. (2002). Analyzing the Past to Prepare for the Future: Writing a Literature Review. MIS Quarterly, *26*(2), xiii-xxiii. https://doi.org/10.2307/4132319

5 Torraco, R. J. (2005). Writing Integrative Literature Reviews: Guidelines and Examples. Human Resource Development Review, *4*(3), 356–367. https://doi.org/10.1177/1534484305278283

6 Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. Journal of Business Research, *104*, 333–339. https://doi.org/10.1016/j.jbusres.2019.07.039

7 Karasek, R. A. (1979). Job Demands, Job Decision Latitude, and Mental Strain: Implications for Job Redesign. Administrative Science Quarterly, *24*(2), 285. https://doi.org/10.2307/2392498

8 Bakker, A. B., & Demerouti, E. (2017). Job demands–resources theory: Taking stock and looking forward.. Journal of Occupational Health Psychology, *22*(3), 273–285. https://doi.org/10.1037/ocp0000056

9 Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout.. Journal of Applied Psychology, *86*(3), 499–512. https://doi.org/10.1037/0021-9010.86.3.499

10 Priem, J., Piwowar, H., & Orr, R. (2022). OpenAlex: A fully-open index of scholarly works, authors, venues, institutions, and concepts. arXiv. https://doi.org/10.48550/arXiv.2205.01833

11 Baas, J., Schotten, M., Plume, A., Côté, G., & Karimi, R. (2020). Scopus as a curated, high-quality bibliometric data source for academic research in quantitative science studies. Quantitative Science Studies, *1*(1), 377–386. https://doi.org/10.1162/qss_a_00019

12 Hendricks, G., Tkaczyk, D., Lin, J., & Feeney, P. (2020). Crossref: The sustainable source of community-owned scholarly metadata. Quantitative Science Studies, *1*(1), 414–427. https://doi.org/10.1162/qss_a_00022

13 Munzner, T. (2014). Visualization Analysis and Design. A K Peters/CRC Press. https://doi.org/10.1201/b17511

14 Borland, D., & Taylor II, R. M. (2007). Rainbow Color Map (Still) Considered Harmful. IEEE Computer Graphics and Applications, *27*(2), 14–17. https://doi.org/10.1109/MCG.2007.323435

15 Cleveland, W. S., & McGill, R. (1984). Graphical Perception: Theory, Experimentation, and Application to the Development of Graphical Methods. Journal of the American Statistical Association, *79*(387), 531–554. https://doi.org/10.1080/01621459.1984.10478080

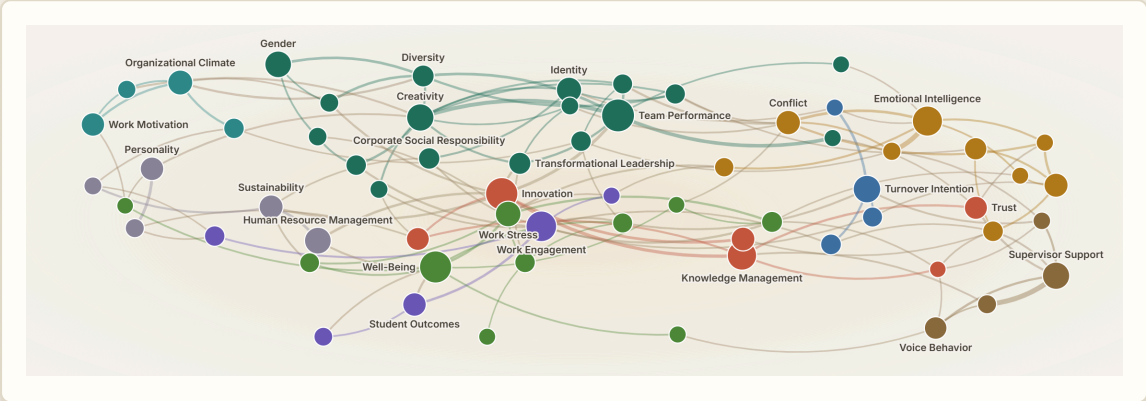
Version history & errata

This guidebook is version-controlled. Corrections are made in its source, the version number is raised, and the change is recorded here and in `CHANGELOG.md`. Report an error with the page number and the version printed in the footer.

VERSION	DATE	CHANGES
2.0.5	2026-10-18	Series back to 13 volumes (Throughline CS dropped: a separate product, not one of the Lazy Research Lad sites): covers and title pages now read 'of 13'. Text and figures unchanged.
2.0.4	2026-10-18	Series grows to 14 volumes (ScholarScope, Cadence, FallacyScope and Throughline CS added): "of 14" on the cover and title page; content unchanged.
2.0.3	2026-10-18	Series grows to ten volumes: Volume 10 (BookScope) added, so covers and title pages now read 'of 10'. Text and figures unchanged.
2.0.2	2026-10-18	Suite renamed: Throughline is now Lazy Research Lad (series, titles and text). Screenshots unchanged.
2.0.1	2026-10-17	Light cover edition: paper-cloth cover with the volume's accent spine and the live figure as a plate, captured in light theme 17 October 2026.
2.0.0	2026-10-16	Rewritten as a research guide continuing the Volume 5 study: what a literature section must do, mapping the territory in the Library, co-occurrence and lift in the Matrix, reading counts as leads, trends, reviewer objections and a model positioning paragraph. Tool reference moved to the last chapter. New figures captured 16 October 2026; 6 new verified references.
1.1.0	2026-10-16	Overview chapter rewritten for the new Overview landscape (provenance ribbon, lens, tide, bedrock, canopy, voices, echo); three new figures.
1.0.0	2026-10-16	First edition. Figures captured 16 October 2026 from the full Vercel host, after the repository-deposit purge of 15–16 October.

Errata

No errata recorded for this version.



PAPERCARDS

Read the evidence, *not the hype*

PaperCards — how to read papers fast without reading them carelessly, and how to weigh several against each other.

Read the evidence, *not the hype*

A working guide to the step between finding papers and citing them: reading what each one actually claims, separating what was measured from what was said, and comparing studies before you lean on them. The study from Volumes 2 and 5 meets three real meta-analyses — and one of them changes its hypothesis.

Site. https://papercards.vercel.app/

Version. 2.1.4 (2026–10–18) · build `3702b3b+edits` · 2026–10–18T15:45:22Z

Figures. Real screenshots of the live site, captured 2026–10–18 by `scripts/capture.mjs`; sample data shown in figures is labelled simulated where it is simulated.

Sources. 6 DOI-verified references, numbered in order of use. Nothing in this book is invented: counts and labels are read from the site or its published data.

Status. A user guide, not documentation of record. Where the site and this book differ, the site is right — please report it (see Version history).

Type. Fraunces, Plus Jakarta Sans and IBM Plex Mono (SIL Open Font License). Laid out with Paged.js.

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01

BEFORE YOU ADD A PAPER

What a careful reading extracts

Most literature reviews cite papers for what their titles suggest. A careful reading asks five narrower questions — and the answers often differ from the headline.

FOR EACH PAPER, BEFORE YOU CITE IT

- [ ] **Constructs and roles:** what was the predictor, the outcome, and anything in between?
- [ ] **Effect:** which direction, and how large — in the source's own numbers, not a paraphrase?
- [ ] **Design:** what kind of study could support this claim — an experiment, a survey, a pooled review?
- [ ] **Sample:** how many, who, where? Would the finding travel to *your* population?
- [ ] **Limits:** what does the paper itself say it cannot show?

Meta-analyses deserve extra care because they look definitive. They pool many studies, which makes their averages precise — but the average can hide large differences between the studies pooled, and the quality of the pool limits the quality of the answer [1].

THE WORKED EXAMPLE — CONTINUED

The study (Volumes 5–7) predicts that long shifts relate to burnout, and that autonomy buffers the link. Before writing the hypothesis section, it reads the meta-analytic evidence on job demands, resources, burnout and engagement — three real papers:

PAPER	WHAT IT POOLED
Lee & Ashforth (1996) [2]	Correlates of the three dimensions of job burnout
Crawford, LePine & Rich (2010) [3]	Job demands and resources with engagement and burnout, by type of demand
Nahrgang, Morgeson & Hofmann (2011) [4]	203 independent samples (N = 186,440) linking demands and resources to burnout, engagement and safety

02

FROM DOI TO DIAGRAM

Add the paper, then check the card

Adding by DOI takes seconds. Checking the result is the part that matters.

1. Open **Add paper**, paste the DOI and press `↓ Fetch`. Metadata comes from Crossref; the abstract from Crossref or OpenAlex.
2. Press `Extract`. The AI reads the abstract into constructs, effects, method and caveats — or a deterministic fallback does, badged *Heuristic — verify*.
3. Read the preview against the abstract **before** saving. Nothing is saved until you press `Save to library`.

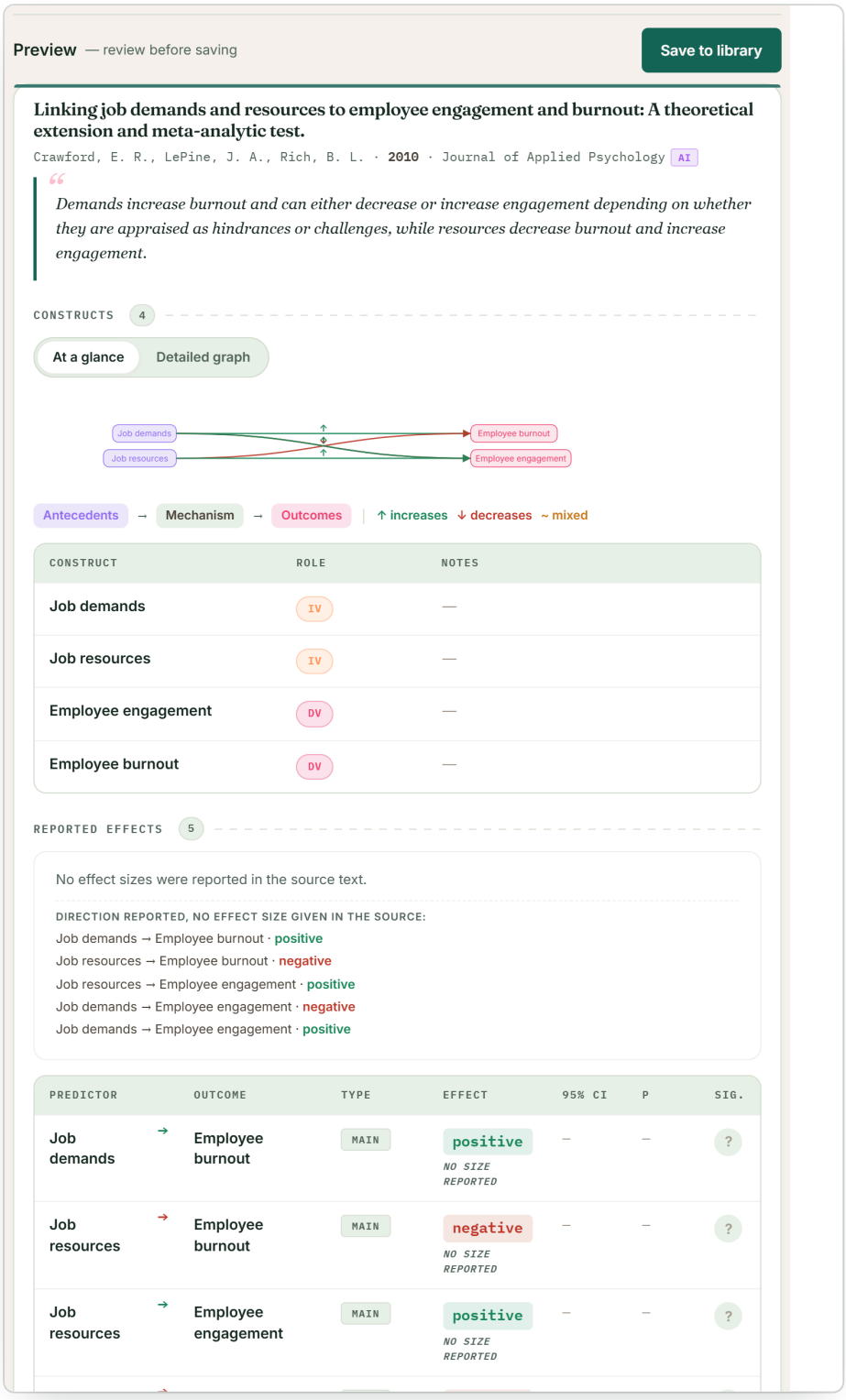


FIG 2.1 Crawford et al. (2010) after `Fetch` and `Extract`: four constructs and five effects, every effect recorded with its direction and marked **no size reported**, because the abstract gives none. Captured live, 16 October 2026.

Look at what the card did *not* do. The abstract says demands and burnout "were positively associated" and gives no coefficient — so the card records *positive* and leaves the size empty. It does not guess a correlation from the literature, and it does not round "positively associated" into a number.

DIRECTION IS NOT SIZE

Numbers on a card must appear in the source text. Abstracts of meta-analyses often state directions only; the pooled effect sizes are in the tables. Open the paper before you quote a size.

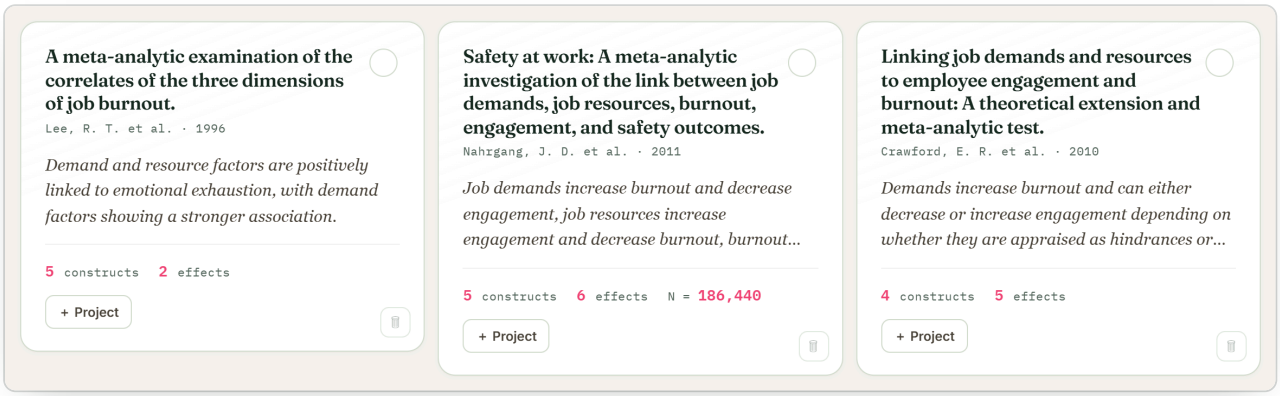


FIG 2.2 The library after adding all three papers by DOI. Each card shows its one-line takeaway, constructs, effects and — where the abstract states it — the sample (N = 186,440 for Nahrgang et al.).

03

CARDS

Read each paper for what it claims

Open each card and ask what it adds to *your* argument — not what it is famous for.

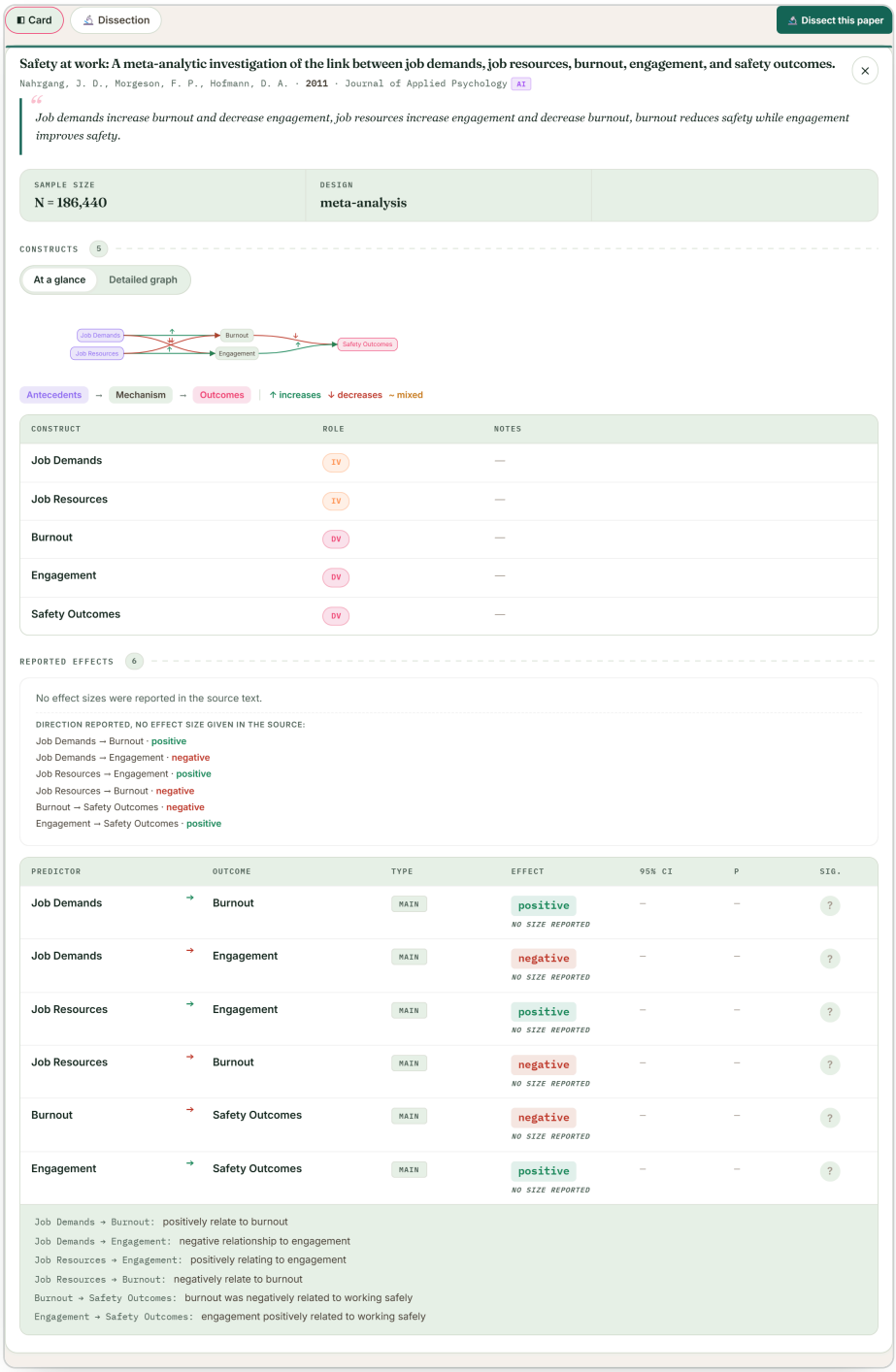


FIG 3.1 Nahrgang et al. (2011): sample size and design at the top; constructs and their roles; six reported effects, each with its direction; the caveats the extraction found.

Nahrgang et al. supply the broadest support for the study's model: in 203 samples, demands "positively relate to burnout", resources such as "autonomy, and a supportive environment" relate positively to engagement, and the two processes run as JD-R describes. They also report that the demand explaining most variance "differed by industry" — a reminder that the average hides setting.

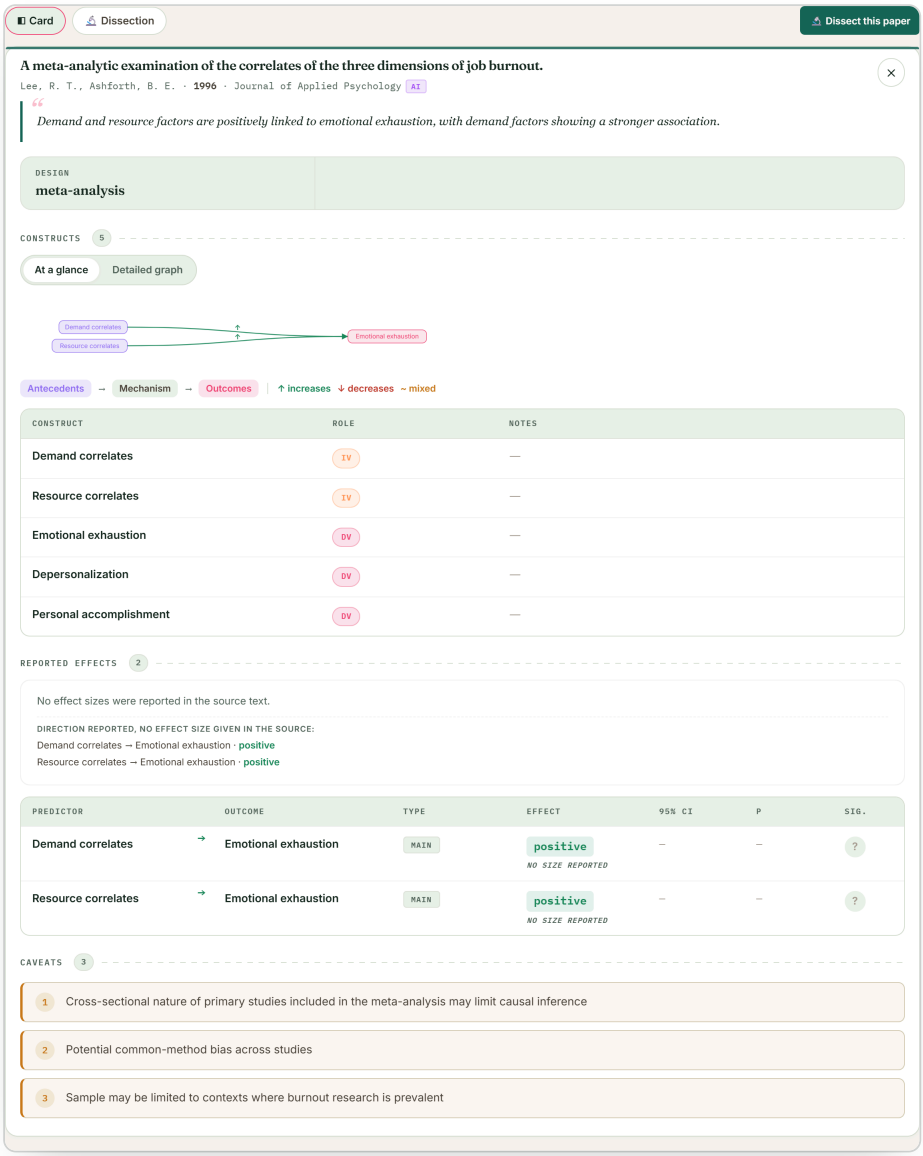


FIG 3.2 Lee & Ashforth (1996): demand and resource correlates were more strongly related to emotional exhaustion than to the other two burnout dimensions.

Lee and Ashforth add something for the measures: correlates of burnout are strongest for **emotional exhaustion**. The study's burnout measure (Volume 6) splits exhaustion from disengagement, so it can report the two separately — and should expect the demand association to be larger for exhaustion.

04

MANY PAPERS AT ONCE

Compare before you lean

One paper is an anecdote, even a meta-analysis. Put the evidence side by side and look for where it disagrees.

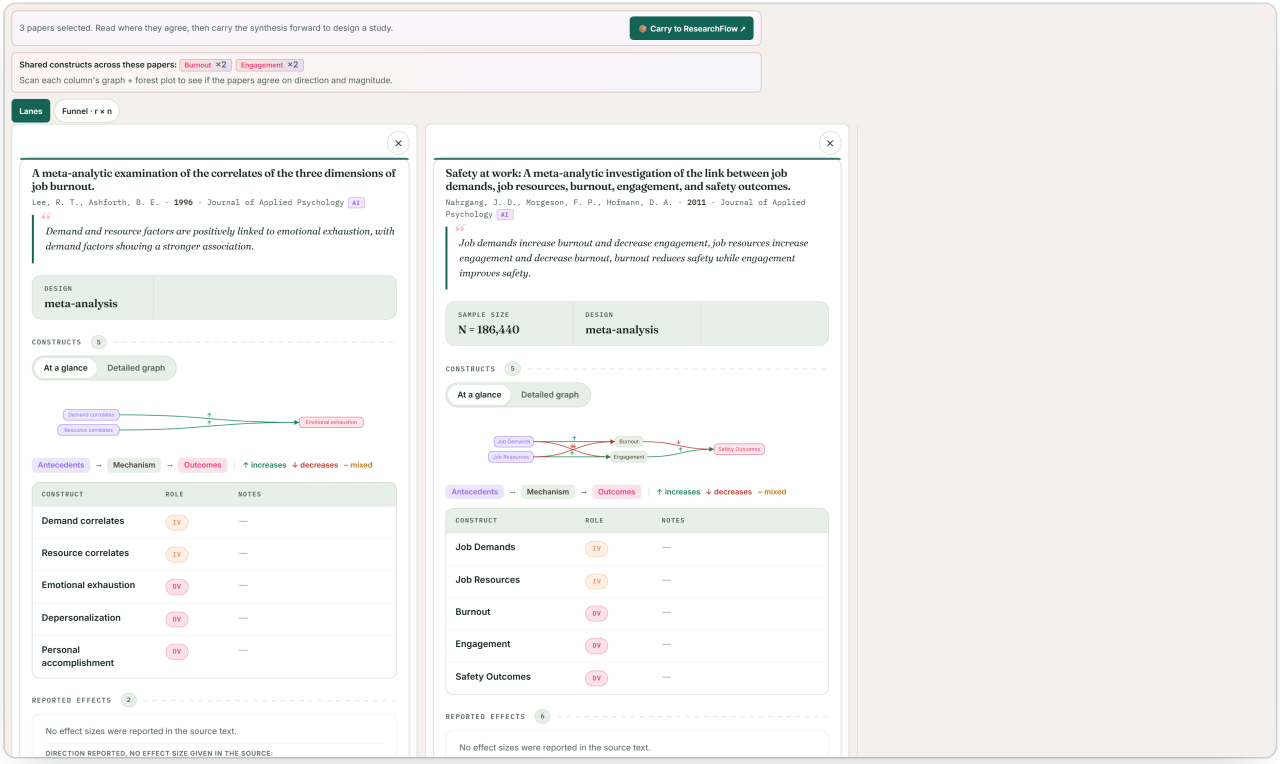


FIG 4.1 Compare with the three meta-analyses selected. The banner lists constructs shared across them; each column keeps a paper's own constructs, effects and caveats. `Carry to ResearchFlow` sends the set on as a discovery pack.

CLAIM	LEE & ASHFORTH 1996	CRAWFORD ET AL. 2010	NAHRGANG ET AL. 2011
Demands → burnout	positive (strongest for exhaustion)	positive	positive
Resources → burnout	—	negative	negative
Resources → engagement	—	positive	positive

Demands → engagement	—	**depends on the demand**	negative

Three papers agree about burnout. They do not agree about **engagement**: Nahrgang et al. find demands negatively related to it, while Crawford et al. find the relationship "highly dependent on the nature of the demand" — demands appraised as **hindrances** go with lower engagement, demands appraised as **challenges** with higher [3].

WORKED EXAMPLE

That disagreement changes the study. Is a long shift a challenge or a hindrance? For most nurses it is plausibly a hindrance — an obstacle, not a chance to grow. The study therefore states its assumption and adds a prediction it can test: **shift length should relate negatively to engagement, as a hindrance demand would**. If it relates positively, the challenge–hindrance account, not plain JD-R, is the better lens.

HONEST DATA

Every cell in this table restates what the abstracts say, in the cards' words. The direction of an effect in a meta-analysis abstract is a summary; the paper's tables give sizes, intervals and heterogeneity.

05

DISSECTION AND LIMITS

Read the whole paper

A card reads an abstract. Your citation rests on the paper. The dissection is the bridge.

1. Open a card and switch to `Dissection` for a 13-facet reading — question, theory, design, sample, measures, findings, limits and more — each item grounded in the source text.
2. Add the PDF (`PDF → dissect`) when the abstract is not enough; the dissection then reads the full text.
3. Note the pooled effect sizes, their intervals and heterogeneity from the paper's tables — those are what you report.
4. Write down each paper's limits in its own words; they become your boundary conditions.

LIMITS

Extraction is AI-assisted. It is constrained to the source text and badged *AI · verify*, but it can still miss or mislabel a construct. A card is a reading aid; the paper is the evidence.

06

THE OBJECTIONS YOU WILL MEET

Defend it

Evidence sections are challenged on what was left out and on how the evidence was weighed.

REVIEWER	YOUR ANSWER
"You cite meta-analyses for directions only. How big are these effects?"	Report the pooled estimates and intervals from each paper's tables, not from abstracts or cards, and note heterogeneity [1].
REVIEWER	YOUR ANSWER
"Demands do not always reduce engagement."	Agree, and show it shaped the design: the challenge–hindrance distinction [3] is stated, and the study tests whether shift length behaves as a hindrance.
REVIEWER	YOUR ANSWER
"These meta-analyses pool mostly other occupations."	Say so. Nahrgang et al. themselves report that the most important demand differs by industry [4]; the study's nursing sample is the test of transfer.
REVIEWER	YOUR ANSWER
"Which burnout dimension?"	Follow Lee and Ashforth [2]: report exhaustion and disengagement separately, and expect demands to relate most strongly to exhaustion.

07

FROM CARDS TO PROSE

Write the evidence

The hypothesis section cites evidence to justify each prediction. Weigh it: agreement first, disagreement explicitly, and your choice in light of both.

MODEL PARAGRAPH

Meta-analytic evidence consistently links job demands to burnout and job resources to engagement [3,4], with demands most strongly related to emotional exhaustion [2]. We therefore expect longer shifts to be associated with higher burnout, particularly exhaustion.

The evidence for engagement is less uniform. Demands relate negatively to engagement in pooled data across industries [4], but the direction depends on whether employees appraise a demand as a challenge or a hindrance [3]. We treat extended shift length as a hindrance demand and accordingly expect it to be associated with lower engagement.

Model paragraph for the illustrative study. Every claim paraphrases the three abstracts; before publishing, replace directions with the pooled estimates from the papers' tables.

BEFORE YOU SUBMIT THE SECTION

- [ ] Each hypothesis cites the evidence behind it, from the paper and not the card.
- [ ] Where studies disagree, the disagreement is stated and resolved by an argument.
- [ ] Effect sizes quoted come from tables, with intervals.
- [ ] Sample and setting differences are acknowledged.

08

REFERENCE

PaperCards at a glance

The tabs and the hero — for when you know what you want and need to find where it lives.

TAB	USE IT TO…
Library	Your papers as cards; select up to five to compare; search, sort, export (CSV, BibTeX, RIS, JSON).
Add paper	Single DOI or abstract, bulk DOIs, a journal's recent papers, or a PDF to dissect.
Discover	The latest real work by field, journal or author, with DOIs.
Corpus	The Research Book's papers inside PaperCards, filterable by construct.
Explore	Citation networks: what a paper cites, what cites it, what is related.
Compare	Two to five papers side by side, with shared constructs, effect lanes or a funnel, and a sortable league of numeric effects.
Timeline · Matrix	Papers by year; every paper as a row with construct and dissection columns.

The hero above the tabs reads one real paper as a diagram. Type a topic, or pick a chip, and it opens the best-matching paper from the Research Book papers that have a dissection on file. For *burnout* that is Weißmüller, Ritz, Steijn and Alfes on private life events, engagement and burnout in public employees [5] — and its *Why* station names an extended job demands–resources model, the same theory the worked study uses.

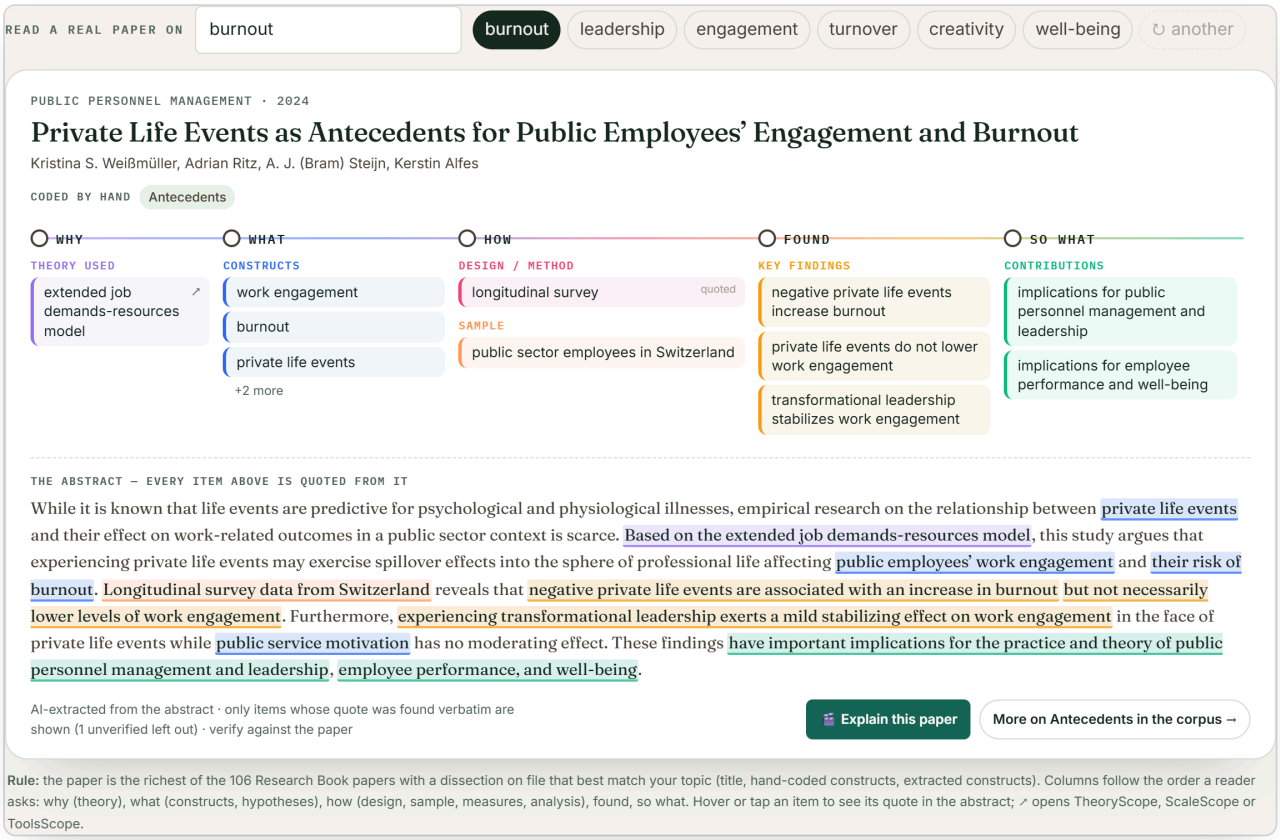


FIG 8.1 The hero for burnout. Why: an extended job demands-resources model. How: a longitudinal survey of public-sector employees in Switzerland. Found: negative private life events increase burnout but do not lower engagement, and transformational leadership stabilises engagement. One extracted item could not be found verbatim and is left out.

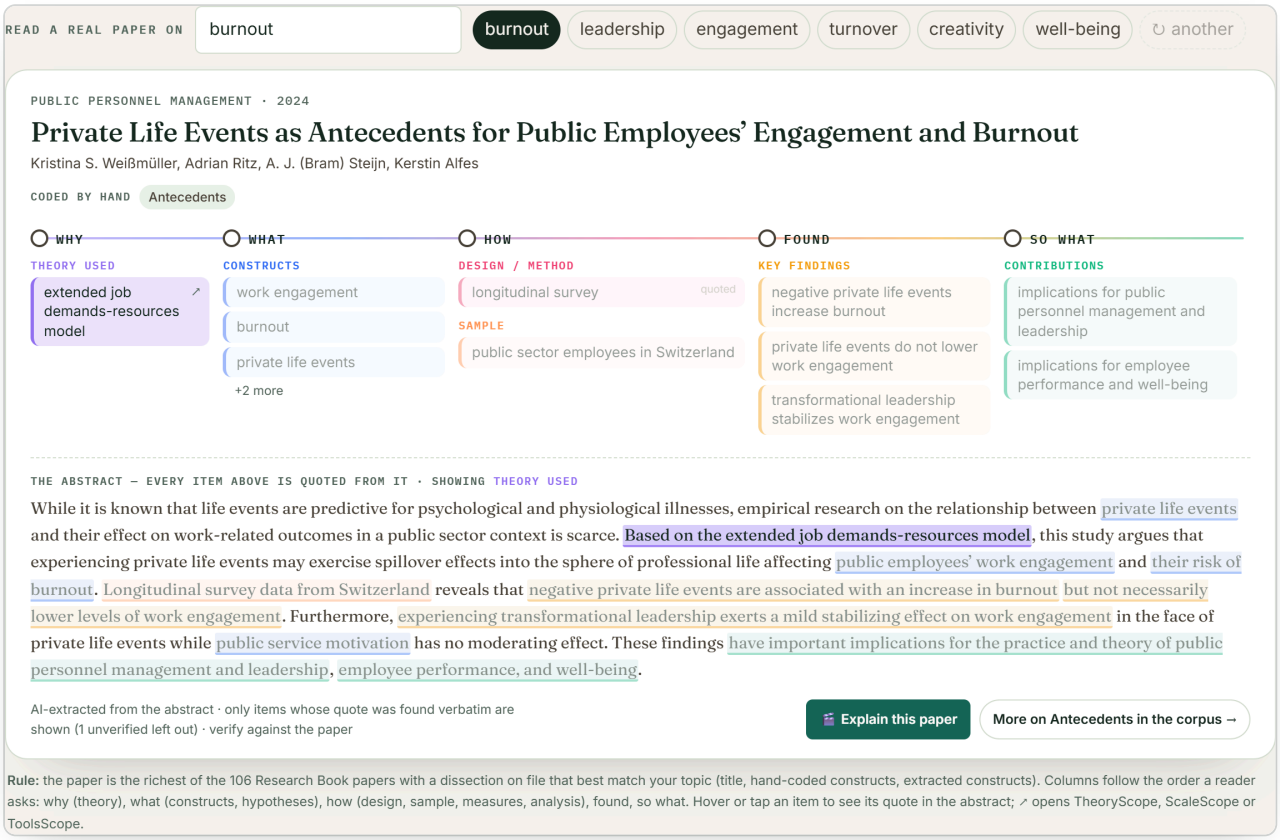


FIG 8.2 Hovering or clicking an item (here the theory) lights the words it was quoted from in the abstract and dims the rest. Check the quote, not the label: the label is the AI's summary, the quote is the paper.

> **HONEST DATA**
>
> The hero is a reading aid, not a search result. It shows one paper per topic, chosen from the 106 Research Book papers with a dissection on file (17 October 2026); "↻ another" cycles through other matches when there are any. To find papers, use **Corpus** or **Discover**.

> **HONEST DATA**
>
> The three demonstration cards that load on a first visit are labelled *demo*: their effect sizes are illustrative examples, not the papers' reported values. Add the real paper by DOI for verified data.

Why it looks like this

The hero draws one paper as a line of five stations — why, what, how, found, so what — in the order a reader asks them, not the order the paper is written in. A station the abstract says nothing about stays on the line, marked *not stated in the abstract*: a missing theory or sample is information, not a gap in the drawing.

Every item is tied to the words it came from. Hovering an item marks its quote in the abstract and dims the rest; an item whose quote cannot be found verbatim is left out, and the footer counts how many were dropped. The diagram can only say what the abstract says.

The paper is chosen by rule, not by chance: the richest of the Research Book papers with a dissection on file that matches your topic by title and constructs. The same topic opens the same paper, so the figures in this guide can be checked against the site.

Glossary

Card

One paper read as a diagram: its constructs and their roles, the reported effects, the design and sample, and its caveats.

Direction-only effect

An effect the source states as positive or negative without a number. PaperCards records the direction and never fills in a size.

Meta-analysis

A study that pools results from many primary studies to estimate an average effect and its variation [1, 6].

Challenge vs hindrance demand

Demands that employees tend to appraise as opportunities for growth (challenges) versus as obstacles (hindrances) [3].

Dissection

A 13-facet structured reading of a paper (question, theory, design, sample, findings, limits…), every item grounded in the source text.

Corpus

The Research Book inside PaperCards, read live from its published files and never copied into your library unless you add a paper.

References

Every reference was resolved by its DOI against Crossref (or DataCite) and matched on first author and year before it could be cited — 6 sources in this volume. Verification date per entry is kept in `references/verified.json`.

1 Borenstein, M., Hedges, L. V., Higgins, J. P. T., & Rothstein, H. R. (2009). Introduction to Meta-Analysis. Wiley. https://doi.org/10.1002/9780470743386

2 Lee, R. T., & Ashforth, B. E. (1996). A meta-analytic examination of the correlates of the three dimensions of job burnout.. Journal of Applied Psychology, *81*(2), 123–133. https://doi.org/10.1037/0021-9010.81.2.123

3 Crawford, E. R., LePine, J. A., & Rich, B. L. (2010). Linking job demands and resources to employee engagement and burnout: A theoretical extension and meta-analytic test.. Journal of Applied Psychology, *95*(5), 834–848. https://doi.org/10.1037/a0019364

4 Nahrgang, J. D., Morgeson, F. P., & Hofmann, D. A. (2011). Safety at work: A meta-analytic investigation of the link between job demands, job resources, burnout, engagement, and safety outcomes.. Journal of Applied Psychology, *96*(1), 71–94. https://doi.org/10.1037/a0021484

5 Weißmüller, K. S., Ritz, A., Steijn, A. J. (., & Alfes, K. (2024). Private Life Events as Antecedents for Public Employees' Engagement and Burnout. Public Personnel Management, *53*(1), 85–112. https://doi.org/10.1177/00910260231187535

6 Hunter, J., & Schmidt, F. (2004). Methods of Meta-Analysis. SAGE Publications, Inc.. https://doi.org/10.4135/9781412985031

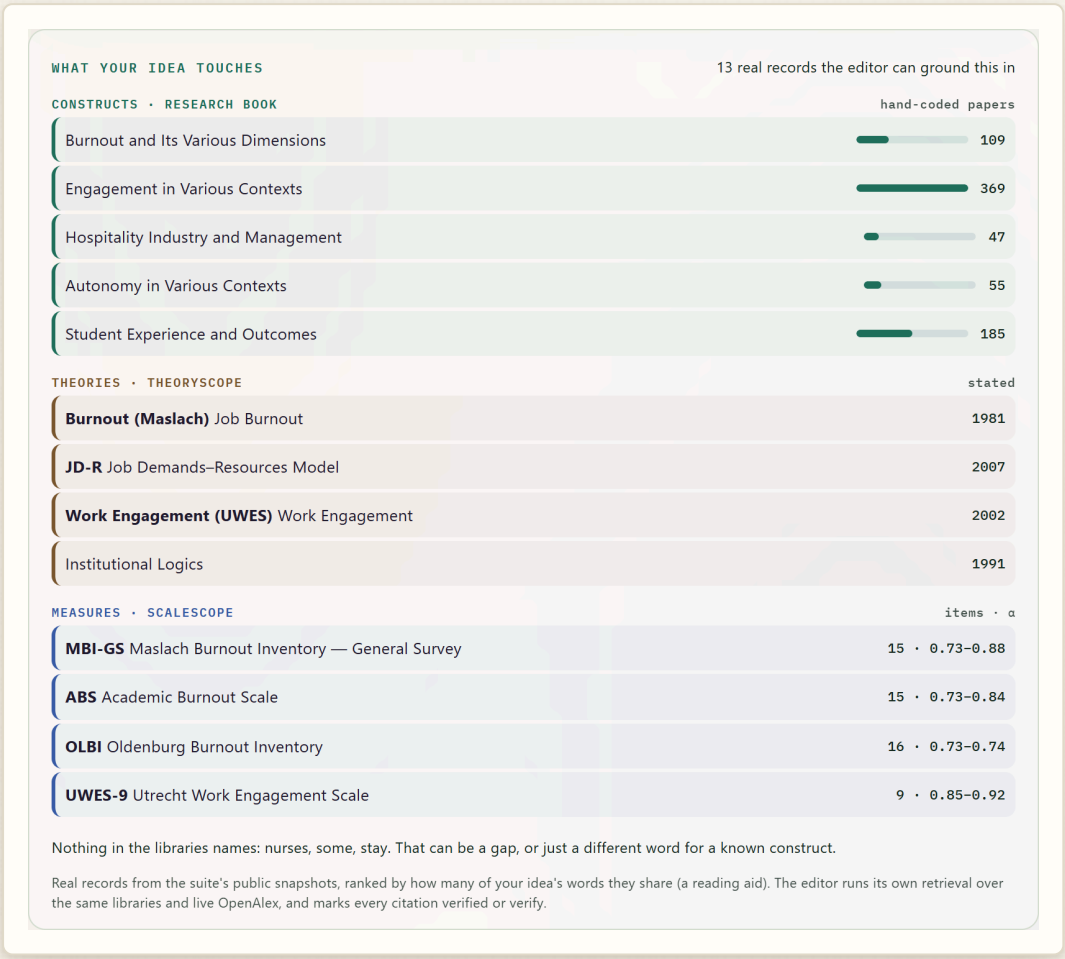
Version history & errata

This guidebook is version-controlled. Corrections are made in its source, the version number is raised, and the change is recorded here and in `CHANGELOG.md`. Report an error with the page number and the version printed in the footer.

VERSION	DATE	CHANGES
2.1.4	2026-10-18	Series back to 13 volumes (Throughline CS dropped: a separate product, not one of the Lazy Research Lad sites): covers and title pages now read 'of 13'. Text and figures unchanged.
2.1.3	2026-10-18	Series grows to 14 volumes (ScholarScope, Cadence, FallacyScope and Throughline CS added): "of 14" on the cover and title page; content unchanged.
2.1.2	2026-10-18	Series grows to ten volumes: Volume 10 (BookScope) added, so covers and title pages now read 'of 10'. Text and figures unchanged.
2.1.1	2026-10-18	Suite renamed: Throughline is now Lazy Research Lad (series, titles and text). Screenshots unchanged.
2.1.0	2026-10-17	The hero chapter now teaches the paper-anatomy view that replaced the construct mycelium: new figures for burnout (the JD-R paper the hero opens) and the hover-to-quote check, rewritten design notes.
2.0.1	2026-10-17	Light cover edition: paper-cloth cover with the volume's accent spine and the live figure as a plate, captured in light theme 17 October 2026.
2.0.0	2026-10-16	Rewritten as a research guide continuing the worked study: what a careful reading extracts, adding real papers by DOI, direction versus size, comparing three JD-R meta-analyses, refining a hypothesis from the evidence, reviewer objections and a model evidence paragraph. Tool reference moved to the last chapter. 4 new verified references.
1.0.0	2026-10-16	First edition. Figures captured 16 October 2026 from the live site.

Errata

VERSION	WHERE	CORRECTION
2.1.0	PaperCards at a glance: the mycelium figure described a hero the site no longer has	The hero chapter now teaches the paper-anatomy view that replaced the construct mycelium: new figures for burnout (the JD-R paper the hero opens) and the hover-to-quote check, rewritten design notes.



RESEARCHFLOW

Draft fast, *audit everything*

ResearchFlow — how to turn an idea into a coherent proposal in ten stages, and how to use an AI draft without trusting it.

LAZY RESEARCH LAD GUIDEBOOKS · VOL. 4

Draft fast, *audit everything*

A working guide to the proposal: a chain of decisions where each one constrains the next. The worked study is run through all ten stages with the site's AI — and the draft is then audited line by line. It is good, and it is wrong in exactly the ways an AI draft usually is.

Site. https://researchflow-syahmedus-projects.vercel.app/

Version. 2.1.4 (2026–10–18) · build `3702b3b+edits` · 2026–10–18T15:45:22Z

Figures. Real screenshots of the live site, captured 2026–10–18 by `scripts/capture.mjs`; sample data shown in figures is labelled simulated where it is simulated.

Sources. 10 DOI-verified references, numbered in order of use. Nothing in this book is invented: counts and labels are read from the site or its published data.

Status. A user guide, not documentation of record. Where the site and this book differ, the site is right — please report it (see Version history).

Type. Fraunces, Plus Jakarta Sans and IBM Plex Mono (SIL Open Font License). Laid out with Paged.js.

Contents

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01

BEFORE YOU START

A proposal is a chain

A research proposal is ten decisions, and every one constrains the next. The question decides the design; the design decides what the analysis can show. Fit between them is what reviewers judge first.

Edmondson and McManus call it **methodological fit**: the question, the state of prior work, the design, the data and the analysis have to belong together [1]. A sharp question with the wrong design is not a strong proposal; it is a promise the study cannot keep.

STAGES	THE DECISION	WHAT IT CONSTRAINS
1–2 Idea, Question	What exactly is asked, and of whom	Everything after it
3–4 Literature, Theory	Why it is worth asking; which explanation is tested	The hypotheses and their direction
5 Hypotheses	What would count as support — and as failure	The design and the analysis
6–7 Design, Sampling	When, how often and from whom data are collected	Which inferences are possible at all
8–9 Instruments, Analysis	How each construct is measured and tested	Whether results can be compared and believed
10 Writing	Where and how it is reported	—

THE WORKED EXAMPLE — CONTINUED

The study from Volumes 2–7, typed into Stage 1 as one paragraph: *Why do nurses on long shifts burn out, and why do some of them stay engaged? I want to test whether job autonomy buffers the link between shift length and burnout, using the Job Demands-Resources model.* Each stage was then generated by the site's AI on 16 October 2026, with no edits.

02

STAGES 1–2

Let the AI draft

An AI draft is fastest where your thinking is already clear, and most useful when it makes you notice what you had not decided.

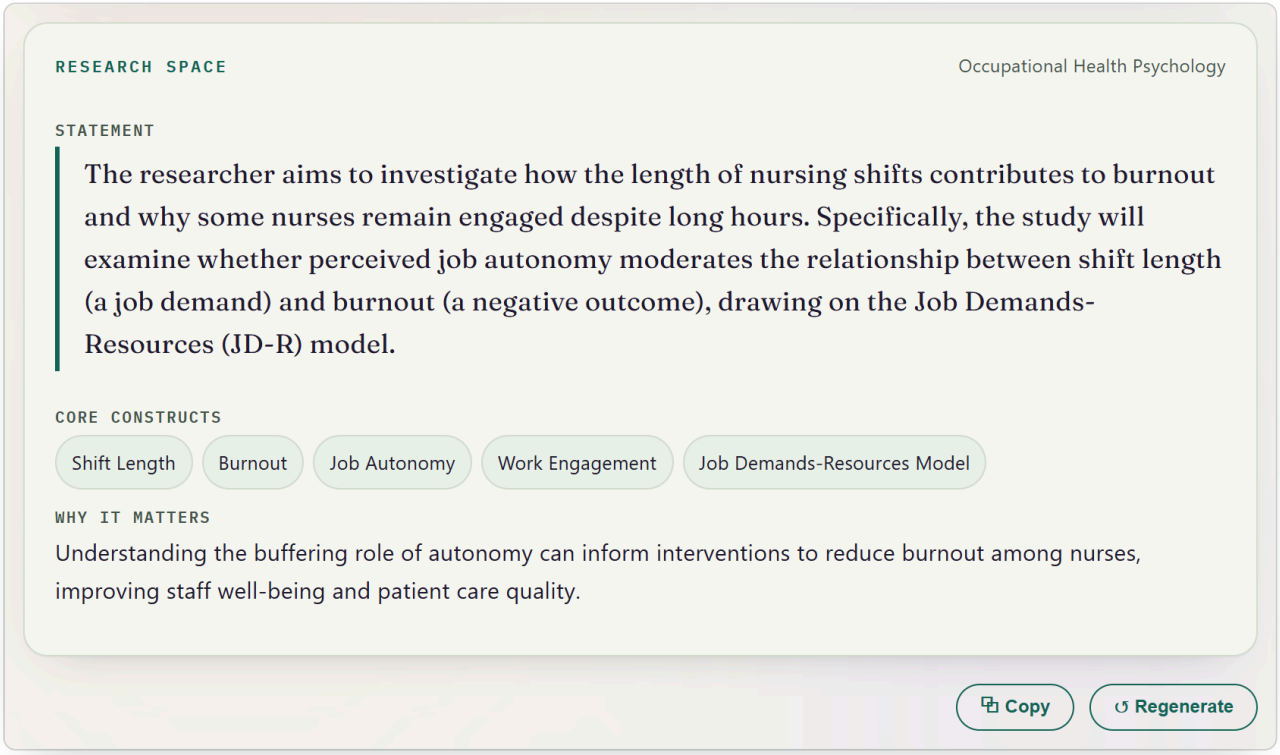

FIG 2.1 Stage 1, generated: an expanded research space, five core constructs, a domain and a why-it-matters line. *AI-generated draft.*

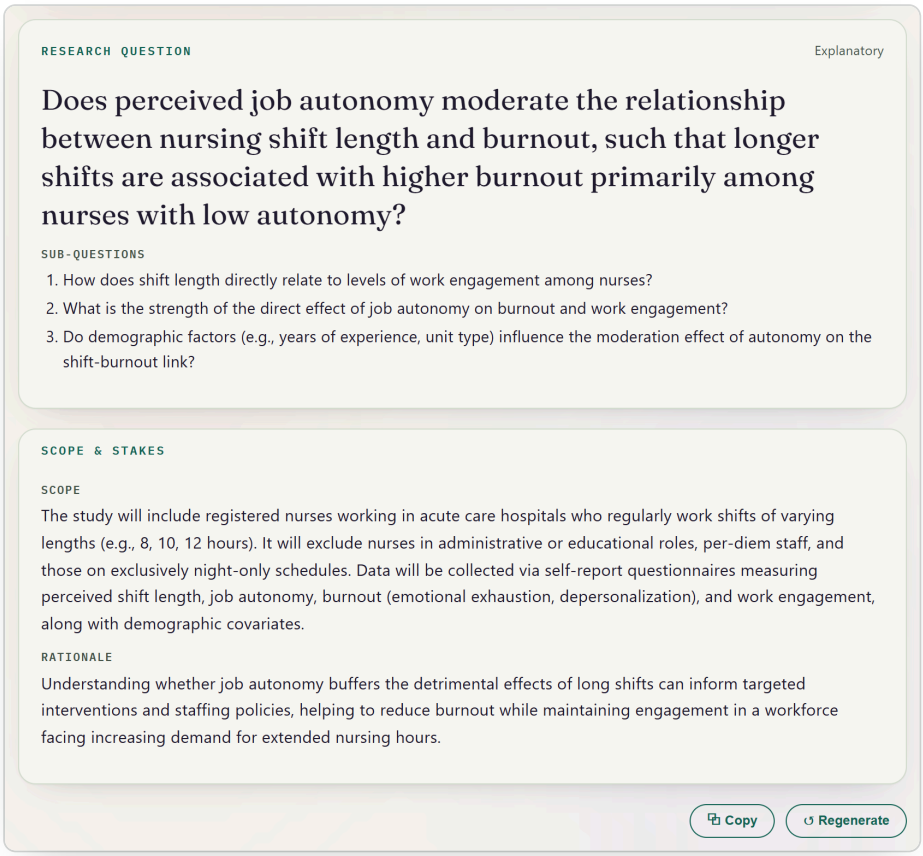

FIG 2.2 Stage 2, generated: the primary question, sub-questions, type, scope and rationale. *AI-generated draft.*

The question is good: "Does perceived job autonomy moderate the relationship between nursing shift length and burnout, such that longer shifts are associated with higher burnout primarily among nurses with low autonomy?" It states the moderator, the direction and the pattern — exactly the buffering prediction of Volume 5.

The scope is useful too, because it forces decisions: acute-care registered nurses; administrative staff, per-diem staff and night-only schedules excluded. Each exclusion is now a choice to defend, not an accident.

> **WHAT A DRAFT IS**
>
> Each stage is drafted by a language model, grounded in the suite's catalogues. Treat it as a first draft by a fast, well-read colleague who never checks a reference. The next chapter is the check.

03

LINE BY LINE

Audit the draft

Read the AI's draft the way a reviewer would read your proposal. Here is what the audit found — every item checked against a source, not against the model.

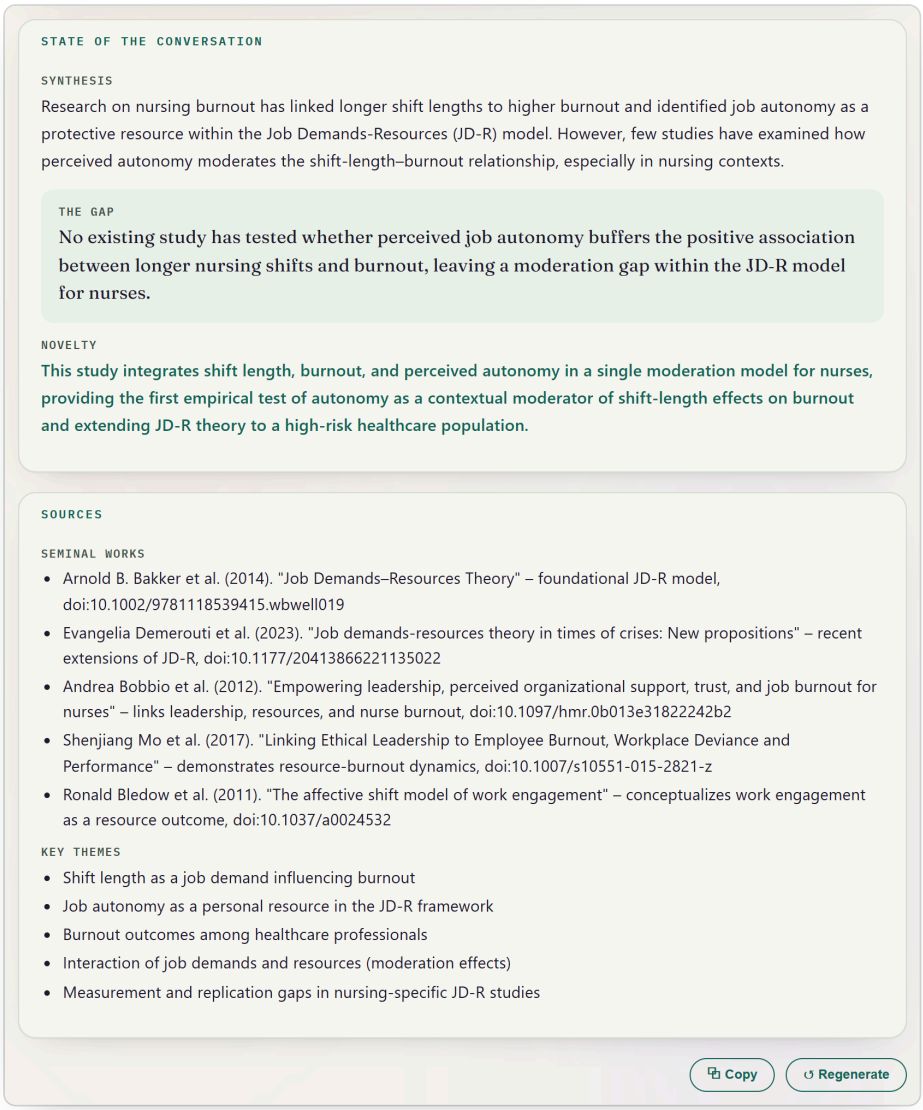

FIG 3.1 Stage 3, generated: overview, themes, five "seminal works" with DOIs, the gap and the novelty statement. *AI-generated draft.*

WHERE	THE DRAFT SAYS	THE CHECK	VERDICT
Stage 3 · gap	"No existing study has tested…" and "the first empirical test"	Volume 2: absence claims need a multi-database search, and the corpus already shows 210 papers matching burnout and autonomy	**Unsupported** — rewrite as "relatively few", with the search
Stage 3 · seminal works	Demerouti et al. (2023), JD-R in times of crises, with DOI	Crossref: the DOI resolves to that paper, published 2023 [2]	Correct — keep, after reading it
Stage 8 · OLBI citation	Demerouti, Bakker, Vardakou & Kantas (2003), "The Oldenburg Burnout Inventory: A good alternative to…"	Crossref: the 2003 paper by those authors is titled *The convergent validity of two burnout instruments* [3]	**Wrong title** — a real paper, misnamed
Stage 8 · OLBI format	"5-point Likert scale"; "subscales α ≈ 0.80"	ScaleScope catalogue (Volume 6): 4-point agreement scale; reported α .73–.74	**Wrong** format; subscale α unsupported

Stage 6 vs 8	Data collection names the Maslach Burnout Inventory; the instruments stage chose the OLBI	The draft contradicts itself	**Inconsistent** — pick one, everywhere
Stage 6 · design	"Cross-sectional survey with moderation analysis"	Volume 5 promised predictors and outcomes measured at different times	**Misfit** — see Chapter 4
Stage 7 · sample size	"Approximately 400 nurses… 80% power to detect… $f^2 \approx .03$"	Plausible for a single interaction term, but not computed here	**Check** in ToolsScope → Power or G*Power [4]

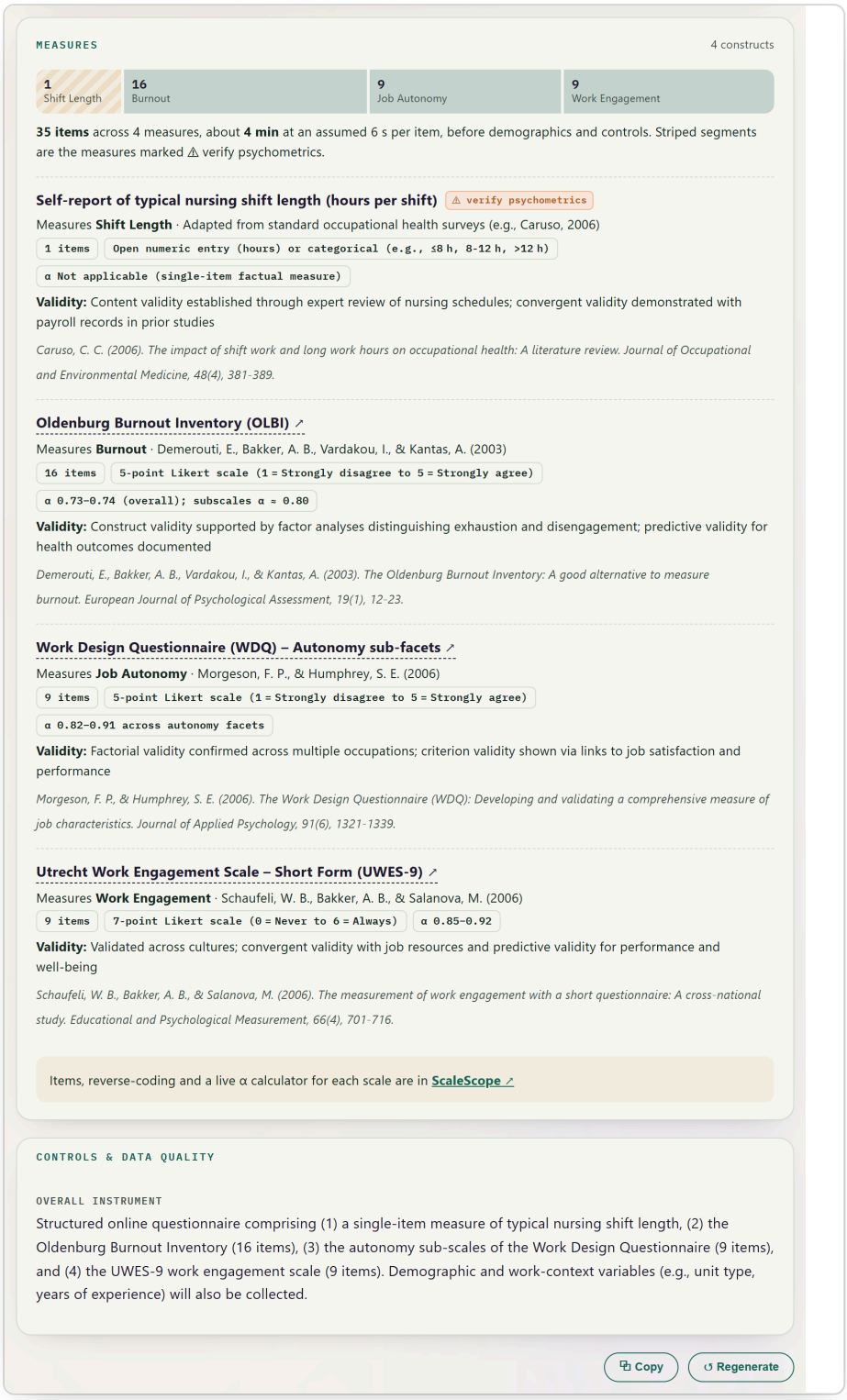

FIG 3.2 Stage 8, generated: one instrument per construct, with scale ids linked to ScaleScope. The OLBI's response format and citation title in this draft are wrong; the catalogue link beside it opens the correct entry. *AI-generated draft.*

None of these is exotic. Absence claims, misremembered titles, slightly wrong details and quiet contradictions are the normal failure modes of fluent drafts. The defence is also normal: check every citation against its DOI, every instrument detail against the catalogue, and every claim about the literature against a search.

BEFORE YOU TRUST A STAGE

- [ ] Every citation opened by its DOI, and its title, authors and year matched.
- [ ] Every instrument detail matched to its catalogue entry or source.
- [ ] No "no study has…" left standing.
- [ ] The same instrument named in every stage.
- [ ] Every number (power, N, α) recomputed or traced.

04

STAGES 6–7

Make the design fit the question

The most consequential fix in the audit is not a typo. It is the design.

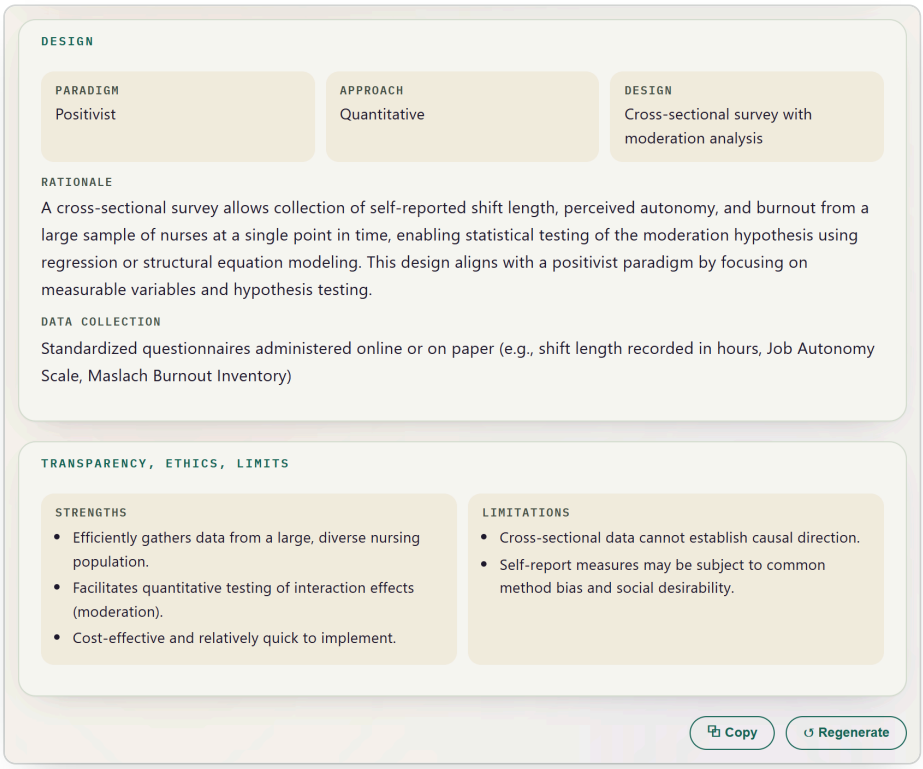

FIG 4.1 Stage 6, generated: positivist, quantitative, cross-sectional survey — with its own limitation listed: "cross-sectional data cannot establish causal direction". *AI-generated draft.*

A cross-sectional survey can test whether autonomy moderates the association between shift length and burnout *at one moment*. It is not useless — cross-sectional designs answer some questions well, and are often dismissed too quickly [5]. But it measures shift length, autonomy and burnout in the same sitting, from the same people, which maximises shared-method bias [6] and cannot show that burnout follows the shifts.

WORKED EXAMPLE

The study keeps the question and changes the design: **shift length from rosters**, autonomy and support at **wave 1**, burnout and engagement at **wave 2**. That separates predictor and outcome in time and in source. It still does not prove causation, but it fits a question about demands *leading to* strain far better [7] — and it is the design every later volume assumed.

FIG 4.2 Stage 7, generated: target and accessible population, stratified sampling by unit type, criteria, recruitment, and the sample-size planner. *AI-generated draft.*

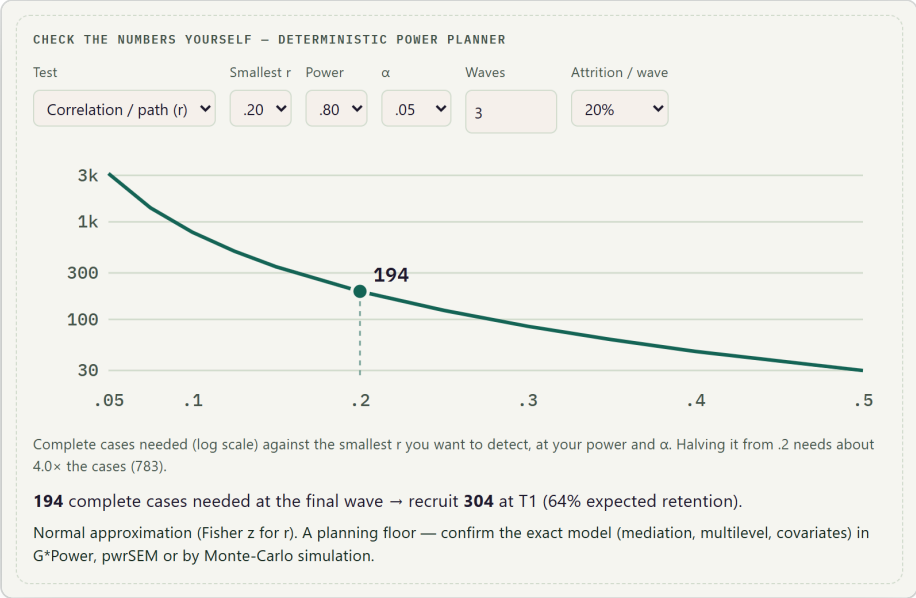

FIG 4.3 The power planner under Stage 7, at its defaults: the smallest correlation worth detecting r = .20, power .80, α .05 → 194 complete cases. The curve is the same formula across effect sizes; halving r to .10 needs about four times the cases (783). Three waves at 20% attrition per wave turn 194 completers into 304 recruits.

The planner under the stage is the quickest check on the draft's numbers, and its curve makes the main lesson visible: the smallest effect you care about drives the sample size, and halving it roughly quadruples N. It plans for a correlation or a group difference. The draft's 400 nurses are justified by an *interaction* effect, which is usually much smaller than the main effects and hard to detect in field data [8]; that number still has to be computed for the interaction term itself, in G*Power or ToolsScope [4].

Stratifying by unit type is a sound idea from the draft, and worth keeping: wards differ, and Volume 7 warned that nurses nested in wards are not independent. Plan for that nesting now — collect the ward for every respondent — rather than discovering it at analysis.

05

FALLACYSCOPE INSIDE

Pitfalls at every stage

Below each stage, ResearchFlow shows the five research pitfalls a reviewer raises first there — each with a canonical source — and keeps the rest one click away.

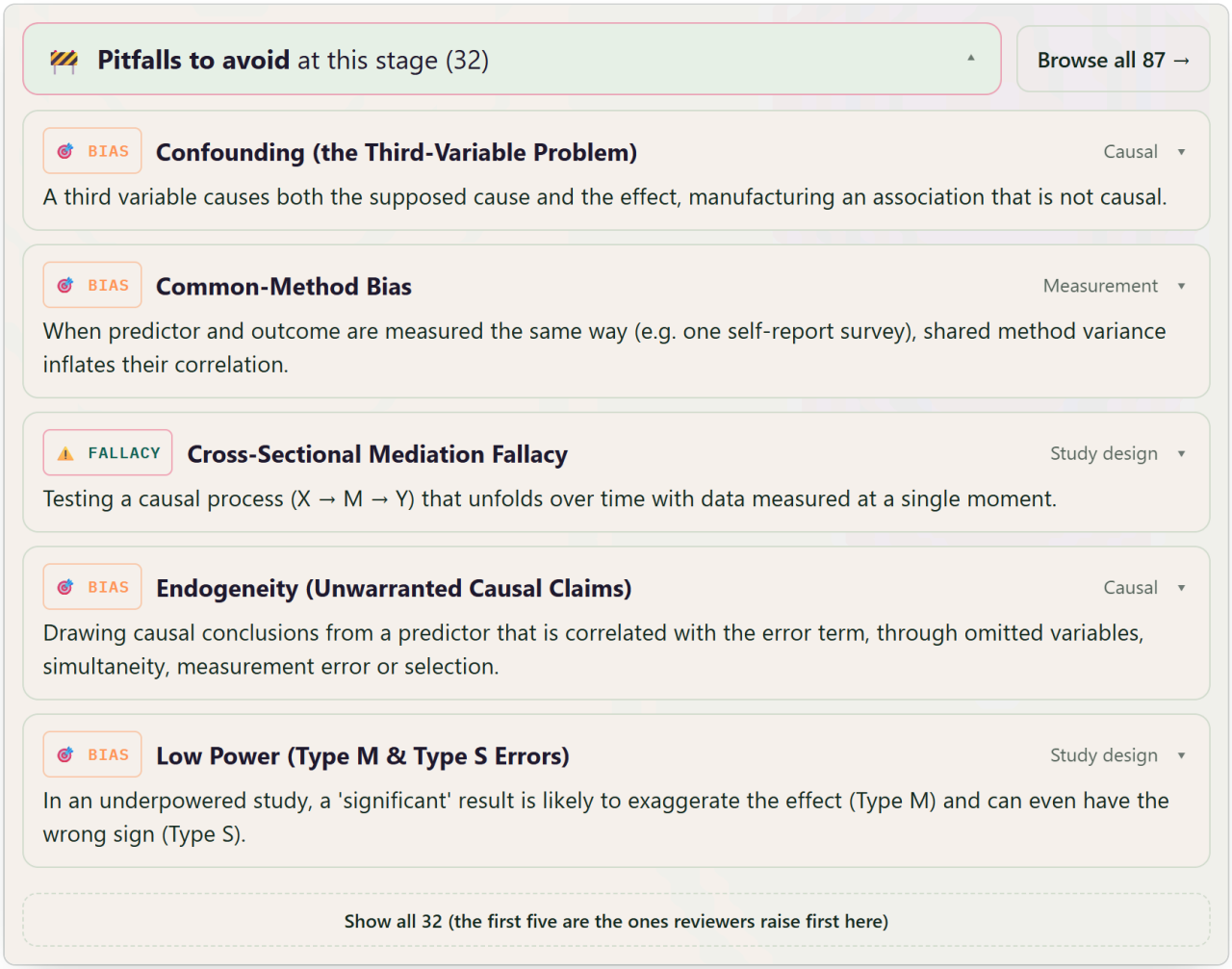

FIG 5.1 The pitfalls under Stage 6: confounding, common-method bias, the cross-sectional mediation fallacy, endogeneity and low power come first; `Show all 32` lists the rest tagged for design, and `Browse all 87 →` opens the full field guide.

Read them as a reviewer's checklist for that stage. At the design stage, the common-method and causal-inference pitfalls are exactly the ones the audit found; at the analysis stage, flexible analysis choices are the ones a preregistered plan prevents [9].

06

THE OBJECTIONS YOU WILL MEET

Defend it

Proposal reviews concentrate on fit and feasibility.

REVIEWER	YOUR ANSWER
"A cross-sectional design cannot test a process."	Agreed — the study uses two waves with predictors and outcomes separated in time, and shift length from records [7,6].
REVIEWER *"How do you know this gap exists?"*	YOUR ANSWER Report the searches (databases, terms, dates) and counts; claim "relatively few", not "none" [10].
REVIEWER *"Is the sample big enough for an interaction?"*	YOUR ANSWER Show the power calculation for the interaction term, not the main effects [4,8].
REVIEWER *"Did you use AI to write this?"*	YOUR ANSWER Say how: drafts were generated, then every citation, instrument detail and number was checked against its source. Follow the journal's disclosure policy.

07

FROM STAGES TO PROSE

Write the design section

The design paragraph states what was done and why that design fits the question.

MODEL PARAGRAPH

To test whether job autonomy buffers the association between shift length and burnout, we used a two-wave design that separates predictors from outcomes in time and source [6,7]. Shift length was taken from ward rosters; autonomy and social support were measured at the first wave, and burnout and work engagement at the second.

Participants were registered nurses in direct patient care in acute-care hospitals, sampled within strata of unit type; ward membership was recorded so that nesting could be modelled. The target sample was set by a power analysis for the interaction term.

Model paragraph for the illustrative study, written after the audit. It reports a design, not results; the power analysis must be run and reported with its inputs.

BEFORE YOU SUBMIT THE SECTION

- [ ] The design is justified by the question, not by convenience.
- [ ] The timing of every measure is stated.
- [ ] The source of every variable (record, self-report, other-report) is stated.
- [ ] Nesting and how it will be modelled are stated.
- [ ] AI assistance is disclosed as the journal requires.

08

REFERENCE

ResearchFlow at a glance

The stages, saving and hand-offs.

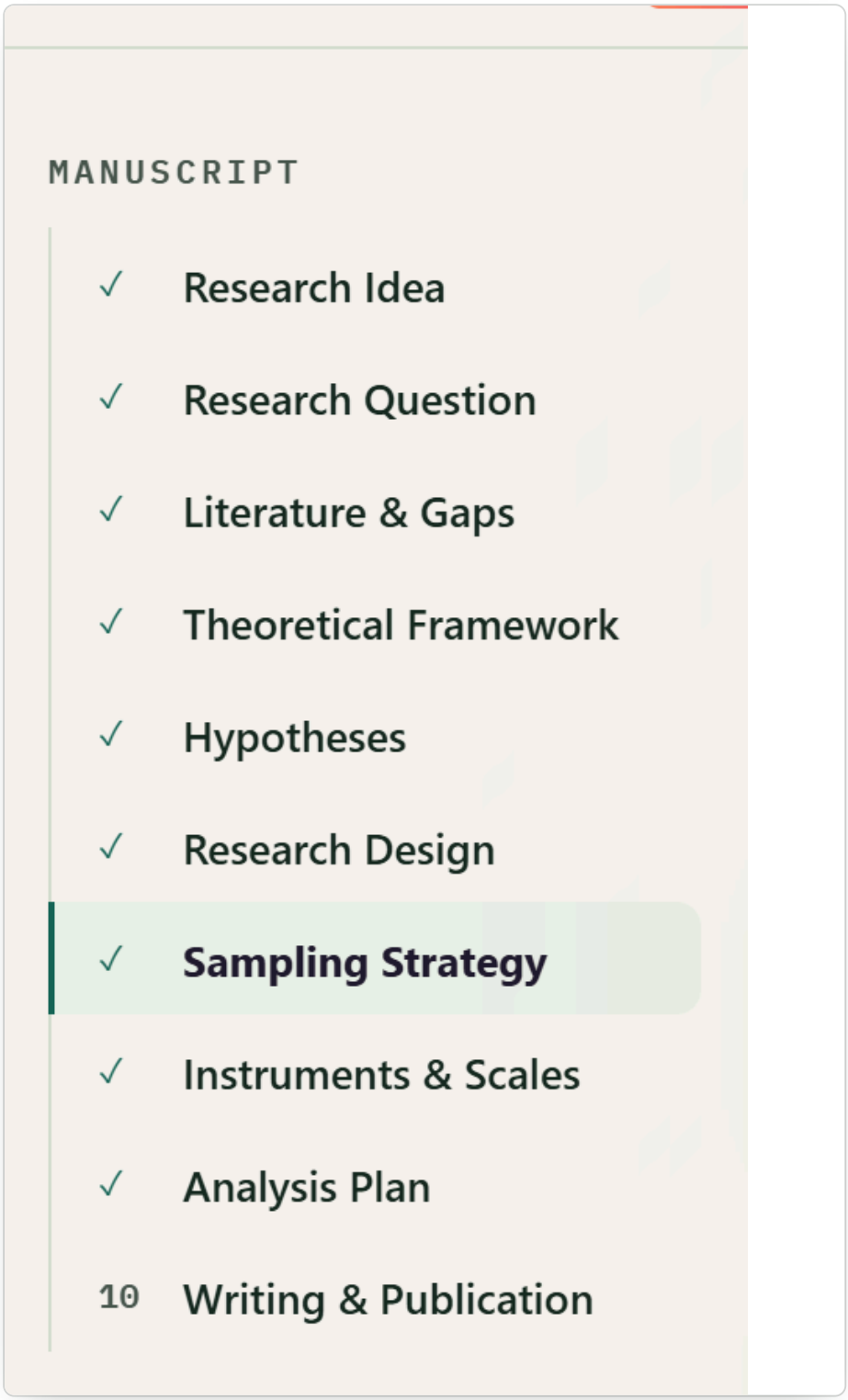

FIG 8.1 The manuscript rail beside every stage: ten sections, ticked when drafted; click one to jump back. On a phone it becomes a strip of chips above the stage. A score beside a section is the editor's self-audit (1–5), shown for stages drafted since the October 2026 upgrade.

- Each stage: write or edit in the form, `✦ Generate`, then refine the draft; `Ctrl+Enter` generates.
- Work autosaves for 14 days; a resume banner offers it back. Named projects live under your account when signed in.
- `Print proposal` builds a printable proposal from every stage.

- 📦 `Carry` sends a ResearchPack to Cadence (collect), ToolsScope (analyse) or JournalTime (write).
- Coming in: PaperCards' Compare carries papers to Stage 1; JournalTime's `↺ Needs revision` returns a draft.

> **HONEST DATA**
> Catalogue grounding gives the model real theories, scales and seminal works to draw on, and links scales and theories to their catalogue entries. It reduces invention; it does not remove it. The audit is your job.

Glossary

Stage

One of ten steps from Research Idea to Writing & Publication. Each has its own form and AI draft.

Catalogue grounding

Before drafting, ResearchFlow retrieves matching real theories, scales, terms and seminal works from the suite's published catalogues and gives them to the model. Grounding narrows what the model says; it does not check it.

Methodological fit

Internal consistency between the research question, prior work, design, data and analysis [1].

Pitfall

A named research paradox, fallacy or bias from FallacyScope, each with a canonical source — shown at the stages where it bites.

ResearchPack

The carrier format that hands your plan to Cadence, ToolsScope or JournalTime.

References

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1 Edmondson, A. C., & Mcmanus, S. E. (2007). Methodological fit in management field research. Academy of Management Review, *32*(4), 1246–1264. https://doi.org/10.5465/amr.2007.26586086

2 Demerouti, E., & Bakker, A. B. (2023). Job demands-resources theory in times of crises: New propositions. Organizational Psychology Review, *13*(3), 209–236. https://doi.org/10.1177/20413866221135022

3 Demerouti, E., Bakker, A. B., Vardakou, I., & Kantas, A. (2003). The Convergent Validity of Two Burnout Instruments. European Journal of Psychological Assessment, *19*(1), 12–23. https://doi.org/10.1027//1015-5759.19.1.12

4 Faul, F., Erdfelder, E., Lang, A. G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. Behavior Research Methods, *39*(2), 175–191. https://doi.org/10.3758/BF03193146

5 Spector, P. E. (2019). Do Not Cross Me: Optimizing the Use of Cross-Sectional Designs. Journal of Business and Psychology, *34*(2), 125–137. https://doi.org/10.1007/s10869-018-09613-8

6 Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies.. Journal of Applied Psychology, *88*(5), 879–903. https://doi.org/10.1037/0021-9010.88.5.879

7 Ployhart, R. E., & Vandenberg, R. J. (2010). Longitudinal Research: The Theory, Design, and Analysis of Change. Journal of Management, *36*(1), 94–120. https://doi.org/10.1177/0149206309352110

8 McClelland, G. H., & Judd, C. M. (1993). Statistical difficulties of detecting interactions and moderator effects.. Psychological Bulletin, *114*(2), 376–390. https://doi.org/10.1037/0033-2909.114.2.376

9 Simmons, J. P., Nelson, L. D., & Simonsohn, U. (2011). False-Positive Psychology. Psychological Science, *22*(11), 1359–1366. https://doi.org/10.1177/0956797611417632

10 Sandberg, J., & Alvesson, M. (2011). Ways of constructing research questions: gap-spotting or problematization?. Organization, *18*(1), 23–44. https://doi.org/10.1177/1350508410372151

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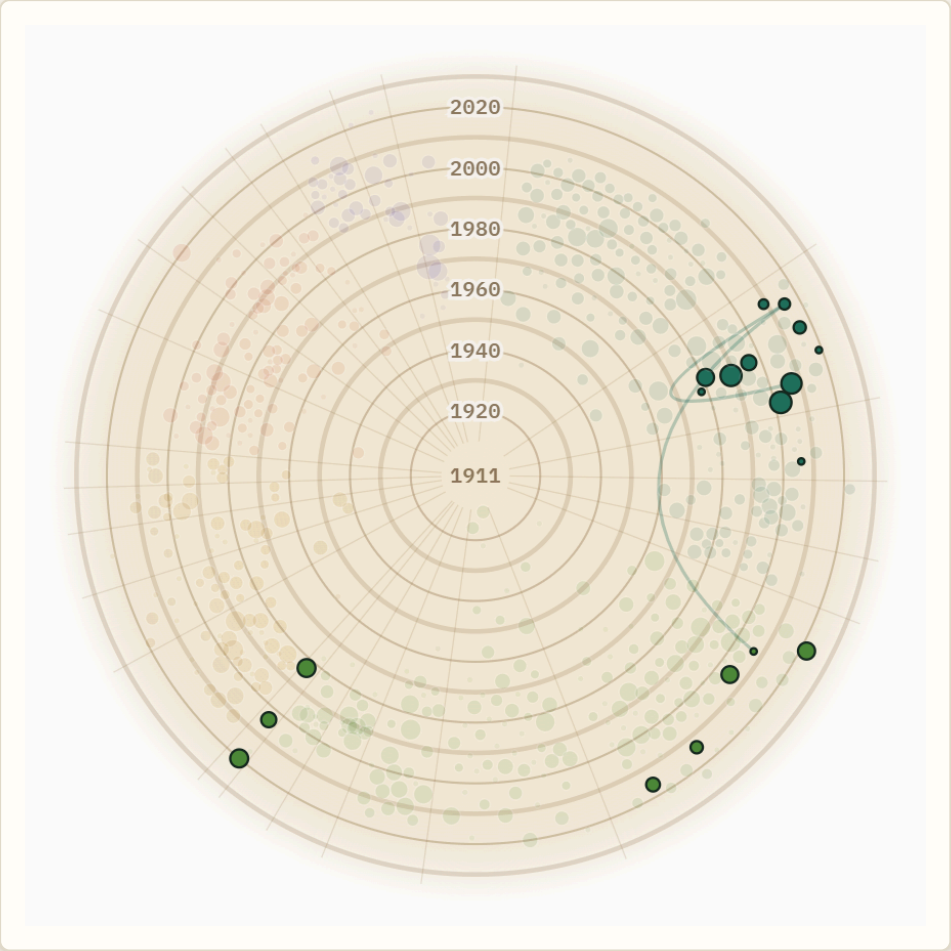
2.1.1	2026-10-18	Suite renamed: Throughline is now Lazy Research Lad (series, titles and text). Screenshots unchanged.
2.1.0	2026-10-17	Figures recaptured after the October 2026 desk layout (full-width, left-aligned stage output). New cover: what the worked study touches in the suite's real libraries. New figure: the power planner's curve, with what it can and cannot check. Pitfalls chapter now shows the five a reviewer raises first at Stage 6; the stepper figure is now the manuscript rail.
2.0.1	2026-10-17	Light cover edition: paper-cloth cover with the volume's accent spine and the live figure as a plate, captured in light theme 17 October 2026.
2.0.0	2026-10-16	Rewritten as a research guide continuing the worked study: the proposal as a chain of decisions, a live ten-stage AI draft, a line-by-line audit (unsupported claims, a wrong citation title, a response-format error, an internal inconsistency, a design that cannot answer the question), methodological fit, reviewer objections and a model design paragraph. 4 new verified references.
1.0.0	2026-10-16	First edition. Figures captured 16 October 2026 from the live site, including the stepper fix of 15 October.

Errata

VERSION	WHERE	CORRECTION
2.1.0	Pitfalls chapter: 'Browse all 48' is now 87, and the list shows five per stage	Figures recaptured after the October 2026 desk layout (full-width, left-aligned stage output). New cover: what the worked study touches in the suite's real libraries. New figure: the power planner's curve, with what it can and cannot check. Pitfalls chapter now shows the five a reviewer raises first at Stage 6; the stepper figure is now the manuscript rail.



THEORYSCOPE

Choosing a lens you can *defend*

TheoryScope — how to find, test and argue for the theory behind your study, with 632 theories of work, behaviour and organisation.

LAZY RESEARCH LAD GUIDEBOOKS · VOL. 5

Choosing a lens you can *defend*

A working guide to the decision every empirical paper makes early and reviewers question first: which theory explains what you will find. One study is followed from a rough question to a finished theory section — every screen is the live site, every theory is quoted from the catalogue, every source is DOI-verified.

Site. https://theoryscope.vercel.app/

Version. 2.0.5 (2026–10–18) · build `3702b3b+edits` · 2026–10–18T15:45:22Z

Figures. Real screenshots of the live site, captured 2026–10–18 by `scripts/capture.mjs`; sample data shown in figures is labelled simulated where it is simulated.

Sources. 18 DOI-verified references, numbered in order of use. Nothing in this book is invented: counts and labels are read from the site or its published data.

Status. A user guide, not documentation of record. Where the site and this book differ, the site is right — please report it (see Version history).

Type. Fraunces, Plus Jakarta Sans and IBM Plex Mono (SIL Open Font License). Laid out with Paged.js.

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01

BEFORE YOU OPEN THE TOOL

What a lens has to do

Most rejected theory sections fail the same way: they name a famous theory and then never use it. This chapter sets the bar a lens has to clear, so the rest of the guide can show you how to clear it.

A theory earns its place in an empirical paper by doing work. Whetten's account of a theoretical contribution is still the clearest checklist: a theory says **what** factors matter, **how** they relate, **why** — the underlying dynamics that justify the relationship — and **who, where and when** it applies [1]. The *why* is the part reviewers read for. Without it, a model is a diagram.

Sutton and Staw made the same point from the other side. References, data, lists of variables, diagrams and hypotheses are each part of a paper — and none of them is theory on its own [2]. A paragraph that cites four classic works and then lists your constructs has not yet told the reader *why* those constructs should move together.

Two further tests decide whether the lens will survive review. First, **precision**: a prediction that only says "there will be a relationship" is hard to be wrong about, and therefore says little; state direction, form and conditions tightly enough that your data could contradict them [3]. Second, **contribution**: be clear whether your study advances the theory (it refines a mechanism, finds a boundary) or applies it to explain something new — both are legitimate, and journals judge them by originality and usefulness [4]. Management research has long been sorted by how much a paper builds versus tests theory [5]; know which you are doing.

A LENS EARNS ITS PLACE WHEN…

- [ ] It explains the **mechanism** I care about, not just the outcome.
- [ ] Its **level of analysis** matches my data (individual, team, organisation).
- [ ] Its constructs can be **measured** with instruments that exist and have known reliability.
- [ ] Its **boundary conditions** include — or at least do not exclude — my setting.
- [ ] I can name its strongest **rival** and say where their predictions differ.
- [ ] My design can show it **wrong**: there is a result that would count against it.

THE WORKED EXAMPLE

Throughout this guide we follow one study from a rough question to a finished theory section. The study is **illustrative** — invented for teaching — but nothing else is: every theory, field, count and screen below is the live catalogue, captured on 16 October 2026.

The question. *Why do nurses on long shifts burn out, and why do some of them stay engaged?*

Notice that this is two questions. Burnout is the outcome most people would theorise. But the second half — some people in the same conditions *stay engaged* — is what makes the study interesting, and the lens has to explain both.

02

FINDING CANDIDATE THEORIES

Cast a wide net

Start broad on purpose. The theory you already know is a candidate, not a conclusion — the goal of the first hour is a shortlist you could defend leaving theories off.

TheoryScope gives two ways in. The **rings** on the home page take a topic and light the theories whose name, constructs or outcomes carry its words — a fast map of where your topic lives in the field, and how old the relevant thinking is. The **Matchmaker** takes a full research question and ranks theories against it, with reasons.

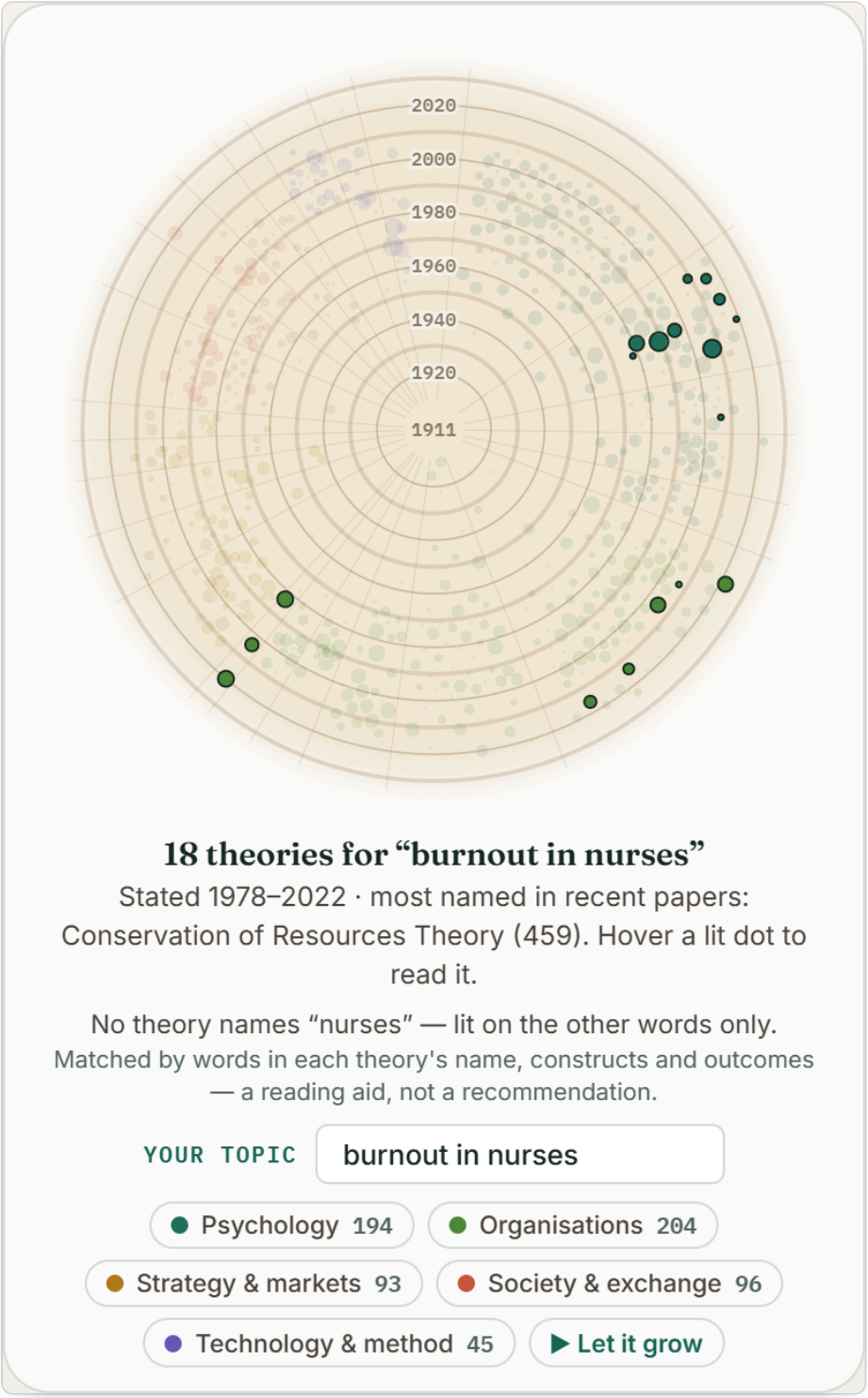

FIG 2.1 The rings with *burnout in nurses* typed into **Your topic**: 18 theories light up, stated between 1978 and 2022. No theory is named for nurses, and the panel says so — the match runs on the other words only. Dot size is how often recent papers name the theory.

Two things are already visible. The relevant theories cluster in the Psychology and Organisations sectors, mostly in the outer rings — thinking from the 1980s onward. And the most-named among them in recent papers is **Conservation of Resources Theory** (459 of the Research Book's 77,411 recent papers). A widely used lens is not automatically the right one, but it tells you what reviewers will expect you to have considered.

Ask the Matchmaker the real question

1. Open ✨ **Matchmaker** and type the question as you would say it to a colleague — not keywords.
2. Add the focal construct (`burnout`) so the ranking weighs it. Leave level and discipline open on a first pass.
3. Press `Find theories` . The ranking is computed from the catalogue first; where the AI layer is reachable it reorders by fit, and each result shows the **match signals** that put it there.
4. Read the signals, not the scores. A score says the catalogue matched your words; the signal says *why*.

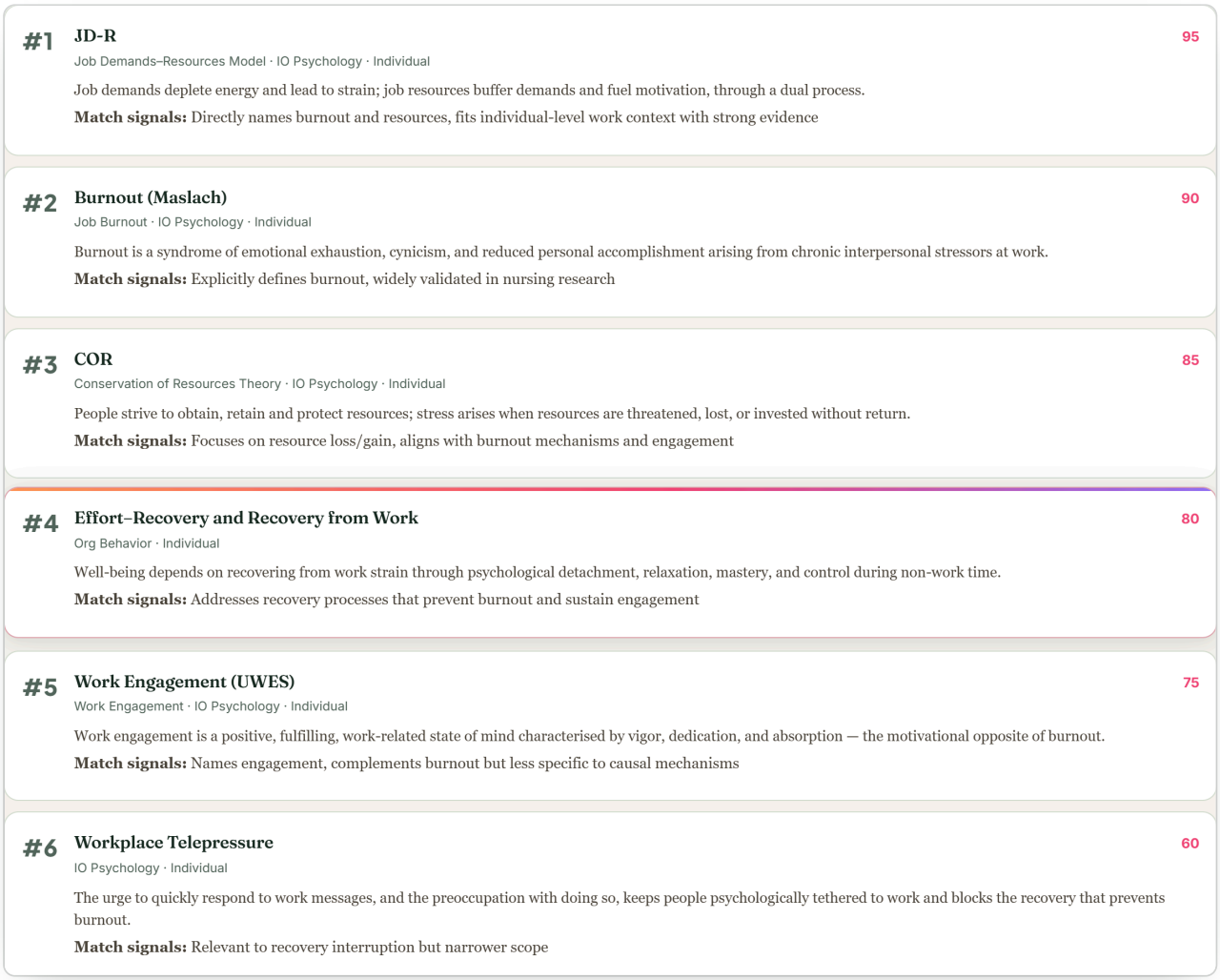

FIG 2.2 Matchmaker results for the worked question with focal construct *burnout*. JD-R, Maslach's burnout entry and COR head the list; each carries the reason it matched. Results were captured on 16 October 2026 — the AI reordering can vary between runs; the catalogue substrate does not.

Separate lenses from phenomena

Read the shortlist critically and it splits in two. **JD-R**, **COR** and **Effort–Recovery** are explanations: each proposes a process that produces burnout. **Burnout (Maslach)** and **Work Engagement (UWES)** are different in kind — they define and measure the outcomes you are explaining [6,7]. You will cite them, but

they cannot be your lens, because they do not say *why* demands become exhaustion.

WORKED EXAMPLE

The study keeps three explanatory candidates for screening — **JD-R**, **COR**, and the **Effort-Reward Imbalance** model (ERI), which the catalogue lists as a classic rival to both — and parks the two outcome entries for the measurement section.

Effort-Recovery and Workplace Telepressure stay in a notebook: plausible secondary mechanisms (recovery between shifts), but narrower than the question.

LIMITS

The rings and the Matchmaker match words against the catalogue; neither reads your design. A theory that fails to light up may still be right for you — synonyms and newer terms are the usual reason. Browse the sector before you conclude a lens is missing.

03

SIX CRITERIA, THREE CANDIDATES

Screen the shortlist

Screening is where a choice becomes defensible. Run every candidate through the same criteria and write down the answers — they become the first draft of your justification.

Open each candidate's card and read it against the checklist from Chapter 1. Everything in the table below is quoted or counted from the three cards; nothing is summarised from memory.

CRITERION	JD-R (2007)	COR (1989)	ERI (1996)
Explains burnout?	Yes — demands trigger a health-impairment process culminating in burnout.	Yes — burnout is listed among outcomes explained.	Yes — burnout is listed among outcomes explained.
Explains staying engaged?	Yes — resources trigger a motivational process culminating in engagement.	Not as a listed outcome; gain spirals are the closest idea.	Not as a listed outcome.
Level of analysis	Individual	Individual	Individual
Measures linked in the catalogue	UWES-9 (engagement), MBI-GS (burnout)	None listed	ERI Questionnaire
Boundary conditions to check	Which resources matter varies across cultures; strain builds over longer than typical study windows.	Resource lists are largely Western-origin; what counts as a resource is sometimes circular.	Mostly validated in Western occupational cohorts.
Named in recent papers	312 of 77,411	459 of 77,411	26 of 77,411

HONEST DATA

Recent-paper counts are verbatim name or acronym matches in the Research Book's recent tier — machine-matched, and best read as *how often the field mentions it*, not how often it is tested. Open the matches before relying on them.

The screen makes the decision visible. All three explain burnout, at the right level. Only one of them, on its own card, explains both halves of the question. That is not the end of the argument — COR in particular is broader than its outcome list — but it tells you which lens can carry the paper and which ones you will have to answer.

WORKED EXAMPLE

Provisional choice: JD-R as the lens, because its dual process is the only one that predicts both the burnout and the engagement half of the question, and its constructs come with measures the study can use.

What still has to be shown: why not COR, which reviewers in this area will raise first, and how the design will avoid JD-R's known weak spot — that almost anything can be called a demand or a resource after the fact.

04

WHERE PREDICTIONS PART

Make the rivals argue

A lens is chosen against something. Put the rivals side by side, find the point where they predict different things, and design for that point.

The **Comparator** holds two to four theories side by side. JD-R vs COR vs ERI is one of its preset *famous debates* — open it in one click.

NAME	JD-R	COR	ERI
ORIGINATORS · YEAR	Bakker et al. · 2007	Hobfoll et al. · 1989	Siegrist et al. · 1996
ONE-LINER	Job demands deplete energy and lead to strain; job resources buffer demands and fuel motivation, through a dual process.	People strive to obtain, retain and protect resources; stress arises when resources are threatened, lost, or invested without return.	Sustained imbalance between high effort and low reward at work erodes health, especially for individuals over-committed to their role.
DISCIPLINE · LEVEL	IO Psychology · Individual	IO Psychology · Individual	IO Psychology · Individual
PARADIGM	Post-positivist	Post-positivist	Post-positivist
CORE CONSTRUCTS	Job demands, Job resources, Personal resources, Engagement, Burnout	Resources, Resource loss, Resource gain, Loss spirals, Gain spirals, Resource caravans	Extrinsic effort, Reward, Over-commitment, Reciprocity
MECHANISM	Dual-pathway: a health-impairment path (demands → exhaustion → strain) and a motivational path (resources → engagement → performance). Resources buffer the demand–strain link; demands amplify the resource–motivation link.	Resource loss triggers stress, defensive resource-preservation, and reduced capacity to invest in future gain. Loss begets loss; gain enables further gain only at decelerating rates.	Chronic effort–reward mismatch activates the autonomic stress response; over-committed workers prolong the exposure by their own effort intensification; cumulative allostatic load drives outcomes.
OUTCOMES EXPLAINED	Engagement, Burnout, In-role performance, OCB, Turnover	Burnout, Coping, Work-family conflict, Trauma response	Cardiovascular disease, Depression, Burnout, Sickness absence
BOUNDARY CONDITIONS	• Cross-cultural variation in which resources matter (e.g., autonomy in individualist vs collectivist contexts) • Specific demand × resource interactions remain under-specified • Time-lag for the strain process is longer than typical study windows	• What counts as a "resource" is sometimes circular • Cross-cultural in scope but resource lists are largely Western-origin • Loss vs gain asymmetry assumes specific reference points	• Mostly validated in Western occupational cohorts • Reward concept blurs material, status, and security aspects
CRITIQUES	• Construct overlap with Conservation of Resources — what counts as a "resource" is theory-laden • Heuristic rather than testable causal model; categorisation of any aspect as demand or resource is contextual • Underspecifies which specific demand × resource pair drives which outcome	• Resource construct is broad to the point of being non-falsifiable • Empirical loss-spiral evidence is thinner than the theory implies	• Reward dimension is multi-faceted but treated as one construct • Over-commitment is sometimes treated as predictor, sometimes moderator
COMMON MEASURES	UWES-9 (Work engagement) MBI-GS (Burnout)		ERI Questionnaire (Effort-reward imbalance)
SEMINAL STUDY	Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The Job Demands–Resources model of burnout. Journal of Applied Psychology, 86(3), 499–512. https://doi.org/10.1037/0021-9010.86.3.499	Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. American Psychologist, 44(3), 513–524. https://doi.org/10.1037/0003-066X.44.3.513	Siegrist, J. (1996). Adverse health effects of high-effort/low-reward conditions. Journal of Occupational Health Psychology, 1(1), 27–41. https://doi.org/10.1037/1076-8998.1.1.27

FIG 4.1 Comparator: JD-R, COR and ERI, row by row — originators and year, one-liner, constructs, mechanism, outcomes, boundary conditions, critiques, measures and the seminal study for each.

Read the **mechanism** row; it is where the three stop agreeing.

	WHAT IT SAYS HAPPENS (VERBATIM)	WHAT YOUR DATA WOULD NEED TO SHOW
JD-R	"Resources buffer the demand–strain link; demands amplify the resource–motivation link."	An interaction: the demand → burnout slope is flatter where resources are high.
COR	"Loss begets loss; gain enables further gain only at decelerating rates."	Change over time: early resource loss predicting further loss — repeated measures, not one survey.
ERI	"Over-committed workers prolong the exposure by their own effort intensification."	Reward measured alongside effort, and over-commitment as a moderator.

Each rival is right about something, and each asks for a different design. That is the useful lesson: **the theory you choose decides what you must measure and when**. If the study is a single survey wave, COR's loss spirals cannot be tested in it, and claiming COR as the lens would promise more than the data can deliver. If the study never measures reward, ERI cannot be tested either.

WORKED EXAMPLE

The study is a two-wave survey of ward nurses. It measures shift length and workload (demands), supervisor support and autonomy (resources), burnout and engagement.

That design can test JD-R's buffering prediction directly. It cannot test COR's spirals across two waves with any confidence, and it measures no rewards, so ERI is out of reach. **The design and the lens now agree** — and the paper can say plainly which rival it does not test.

> Choose the lens whose distinctive prediction your design can actually test — and say which rival's it cannot.

05

FROM MECHANISM TO HYPOTHESES

Map the argument

Once the lens is chosen, its card becomes a blueprint: the mechanism gives the arrows, the constructs give the boxes, the boundary conditions give the limits you must state.

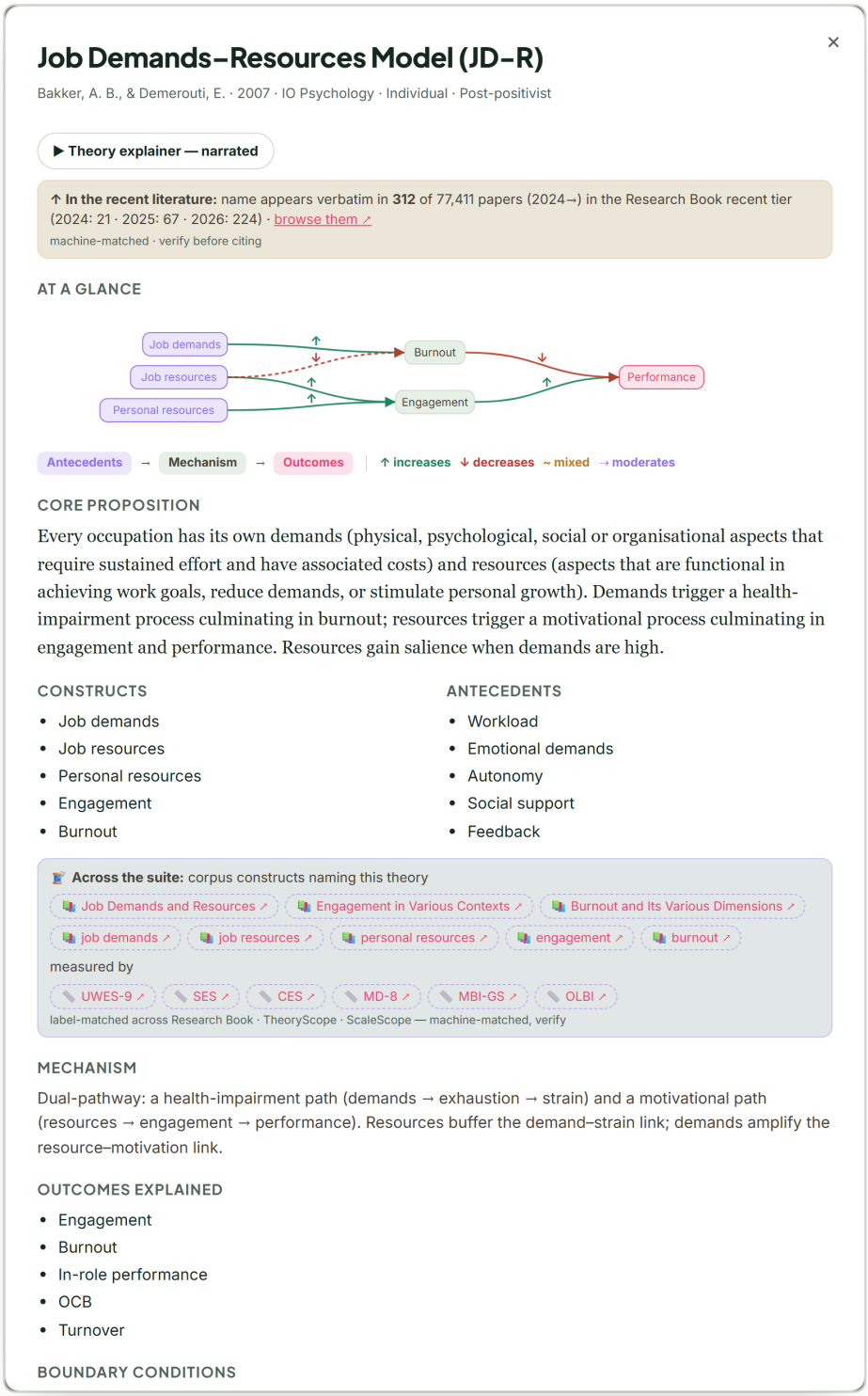

FIG 5.1 The JD-R card. *At a glance* draws the mechanism as a flow: demands and resources on the left, burnout and engagement in the middle, performance on the right, with the sign of each link. Below it: the core proposition, constructs, antecedents, and the suite links — corpus constructs that name JD-R and the scales that measure them.

Read the *At a glance* flow as a draft of your model. Every arrow in it is a claim the theory makes; your hypotheses are the arrows your study will test, in your setting. For the worked example, the mechanism text translates directly:

FROM THE MECHANISM	HYPOTHESIS IN THE STUDY'S TERMS

Demands → exhaustion → strain	H1. Longer shifts and heavier workload are associated with higher burnout.
Resources → engagement → performance	H2. Supervisor support and autonomy are associated with higher engagement.
Resources buffer the demand–strain link	H3. The association between demands and burnout is weaker for nurses with more support and autonomy.

H3 is the one that matters. H1 and H2 are expected by almost every stress theory; only the buffering interaction is distinctively JD-R. A study that finds H1 and H2 but tests no interaction has used the lens's name without testing its idea.

Check your argument on Canvas

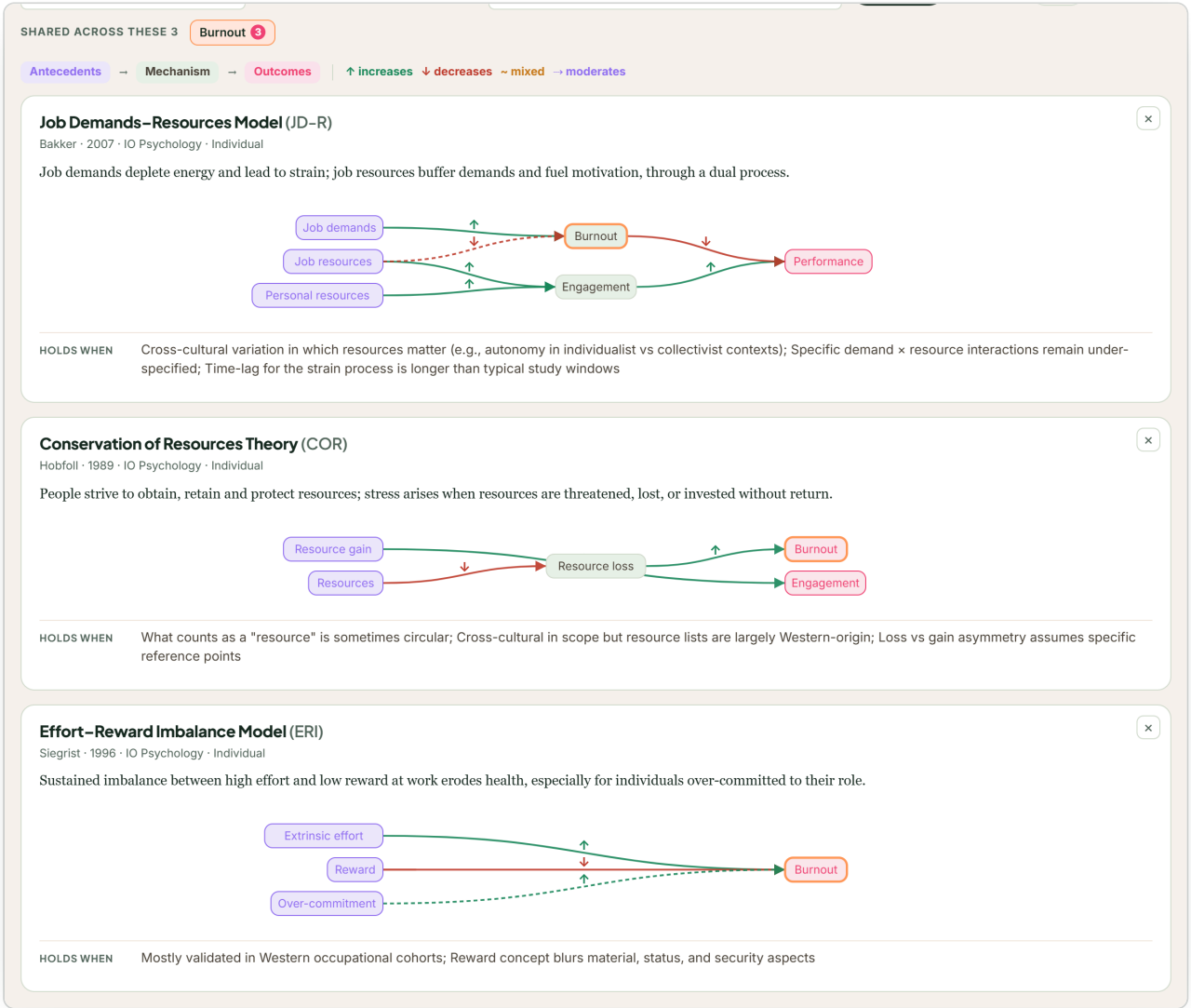

FIG 5.2 Canvas with JD-R, COR and ERI on the board. Each card draws its own flow and its *holds when* conditions; the strip at the top lists constructs the three share exactly — here, Burnout. Shared constructs are matched after normalising spelling; overlap is never guessed.

Canvas is where you see the whole argument at once — your lens and its rivals, what they share, where each stops. Shared outcome, different mechanisms: that one line is the honest summary of the debate, and a good opening for your theory section.

TIP

The constructs on each card link to ScaleScope. The study takes UWES-9 for engagement [7] and a Maslach Burnout Inventory form for burnout [6] straight from the JD-R card — measures the lens's own literature uses, which makes the results comparable with the studies you will cite.

06

THE OBJECTIONS YOU WILL MEET

Defend it

Every well-known theory comes with well-known criticisms, and reviewers know them. TheoryScope lists each theory's critiques on its card; use them to write your defence before anyone asks.

The objections below are the JD-R card's own critiques and boundary conditions, put as a reviewer would put them. The answers are strategies, with the sources that support them — adapt them to your study; do not paste them.

REVIEWER	YOUR ANSWER
"JD-R is a heuristic rather than a testable causal model — anything can be called a demand or a resource after the fact."	Classify every variable as demand or resource **before** data collection, from the study's setting, and say so. Test the specific demand × resource interaction you predicted, with its direction, so that a null or reversed interaction counts against the lens [3]. Cite the theory's later statement as a theory rather than a heuristic model [8].
"Your resources are COR resources. Why is this not a COR study?"	Agree that the constructs overlap — the JD-R card itself lists this critique. Then say where the predictions part: COR predicts loss spirals over time; your two-wave design tests buffering at one point in time, which is JD-R's distinctive claim. Cite the COR literature you are not testing [9,10] and name the spiral test as future work.
"Burnout develops over months. Your measurement window cannot capture it."	The card lists this boundary condition — strain develops over longer than typical study windows. State the lag your design does cover, report associations rather than development, and write the limitation in the theory's own terms.

REVIEWER	YOUR ANSWER
"Effort–reward imbalance is the established model for health workers."	Say what ERI predicts — high effort meeting low reward, prolonged by over-commitment [11] — and that your study does not measure reward. Scope the claim: your findings speak to demands and resources, not to reciprocity.

TIP

A good defence concedes something. Reviewers trust a theory section that names the strongest rival and the limit of the design more than one that claims the chosen lens explains everything.

07

FROM CHOICE TO PROSE

Write the theory section

Everything so far was decision-making. The theory section reports the decision in a fixed order: the phenomenon, the lens, its mechanism, its boundaries, the rival, and the hypotheses that follow.

1. **Phenomenon.** One paragraph on what is puzzling — here, that people facing the same conditions respond in opposite ways.
2. **Lens and why.** Name the theory, its originators, and the reason it fits *this* puzzle — the dual process, in our case — citing the canonical statement [12,13].
3. **Mechanism.** The *why*, in the theory's terms. This is the paragraph reviewers read most closely [1].
4. **Boundaries and rival.** Where the lens is expected to hold, and the rival you considered and why your design does not test it.
5. **Hypotheses.** Each one tied back to a sentence of the mechanism, ending with the one only your lens predicts.

MODEL PARAGRAPH

We draw on the Job Demands–Resources (JD-R) model [12,13]. JD-R holds that every occupation has its own demands — aspects of work that require sustained effort and carry costs — and its own resources, which help achieve work goals, reduce demands or stimulate growth. Demands set off a health-impairment process that culminates in burnout; resources set off a motivational process that culminates in engagement [8].

This dual process is what makes the model suited to our question. In long-shift nursing, the puzzle is not only that some nurses burn out but that others, under the same schedules, remain engaged. JD-R predicts both, and it predicts how they connect: resources should buffer the link between demands and strain. We therefore treat shift length and workload as demands, and supervisor support and autonomy as resources, classified before data collection.

Conservation of Resources theory offers a rival account in which early resource loss sets off further loss over time [9]. Our two-wave design does not test such spirals; we return to them as a direction for longitudinal work.

Model paragraph for the illustrative study. Every theoretical claim in it paraphrases the JD-R and COR cards and their cited sources; it contains no findings. Treat it as a structure to adapt — the setting, variables and design are this example's, not yours.

BEFORE YOU SUBMIT THE SECTION

- [ ] The *why* is stated in the theory's own terms, not only cited [2].
- [ ] Every hypothesis traces to a sentence of the mechanism.
- [ ] At least one hypothesis is distinctive to the chosen lens.
- [ ] The strongest rival is named, with the reason it is not tested.
- [ ] Boundary conditions from the card are stated as limits of *this* study.
- [ ] Every citation was opened, not just copied from the card.

08

REFERENCE

TheoryScope at a glance

The tabs, the visuals and what each one is for — for when you know what you want to do and need to find where it lives.

TAB	USE IT TO…
Browse	Search and filter the catalogue by discipline and level; `CSV` exports the filtered list.
✨ **Matchmaker**	Describe your question and get theories ranked for it, with the reasons (Chapter 2).
Comparator	Put two to four theories side by side, or open a famous debate (Chapter 4).
Influence Map	See how theories build on, extend, critique, rival or integrate each other; the second view draws authored construct relations.
Canvas	Board the theories and papers you are working with and see the constructs they share (Chapter 5).
Timeline	Every theory at the year it was first stated, by discipline.
Paper	The methods paper behind the library, with live statistics.

Reading the tree rings

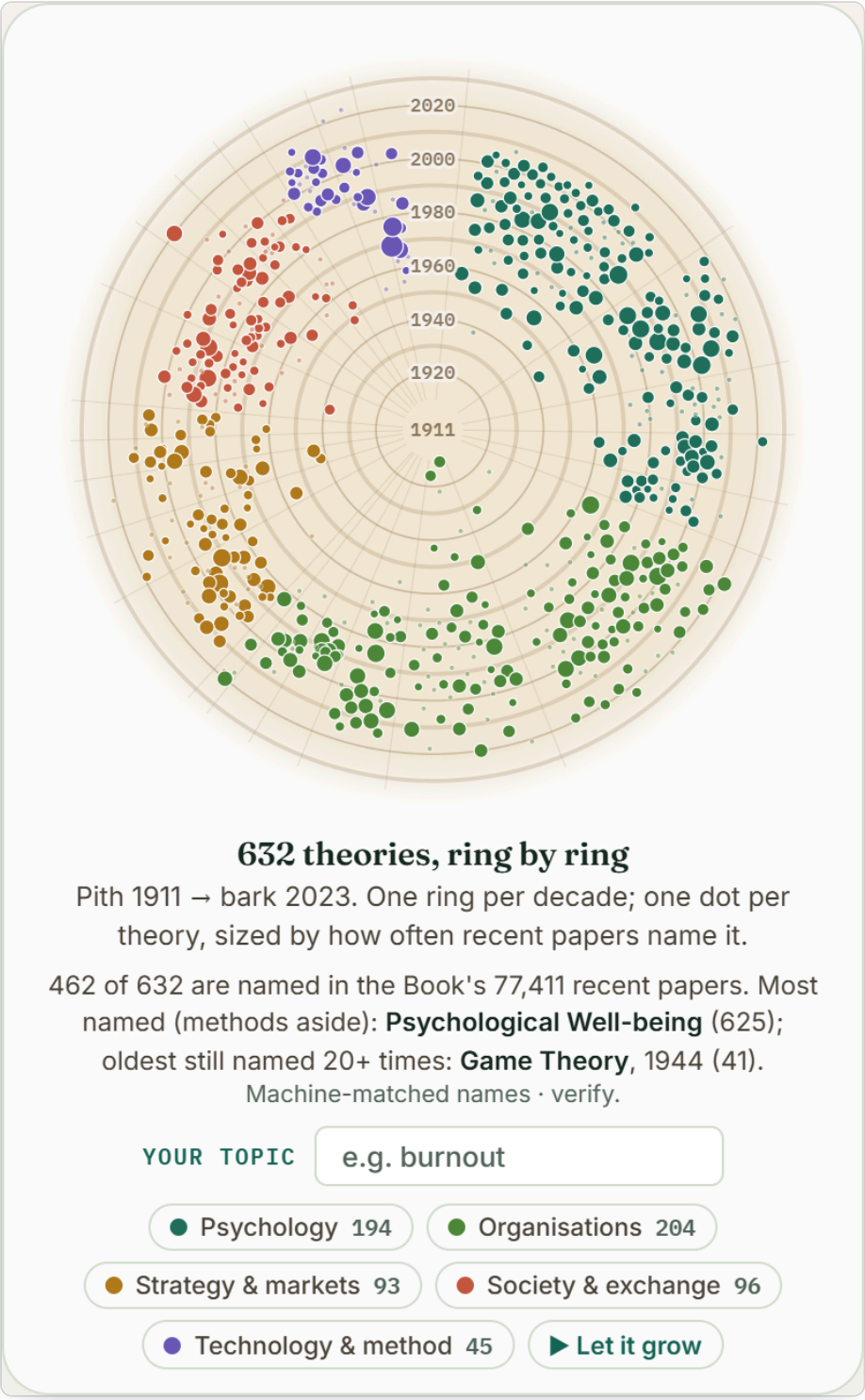

FIG 8.1 The catalogue as growth rings: one ring per decade from the 1910s to the 2020s, one dot per theory, sized by how often recent papers name it.

WHAT YOU SEE	WHAT IT MEANS
Distance from the centre	The theory's year — the real `year` field, on a linear scale from the pith (1911) to the bark (2023).

Sector	The theory's discipline; each sector's width is proportional to how many theories it holds.
Colour	A family of disciplines (Psychology, Organisations, Strategy & markets, Society & exchange, Technology & method) — a display grouping named in the legend.
Dot size	How often recent papers name the theory, on a log scale; faint small dots are not named in the recent tier — *not named*, which is not the same as *not used*.
Position within a sector	Layout only: the golden-angle rule that packs a sunflower head [14].

> **HONEST DATA**
> No dot is placed at an invented year or discipline. Only the angle *inside* a sector is a drawing choice, made so dots do not overlap. Reduced-motion settings keep the rings still; `▶ Let it grow` turns the reveal on for this device.

Influence Map and Timeline

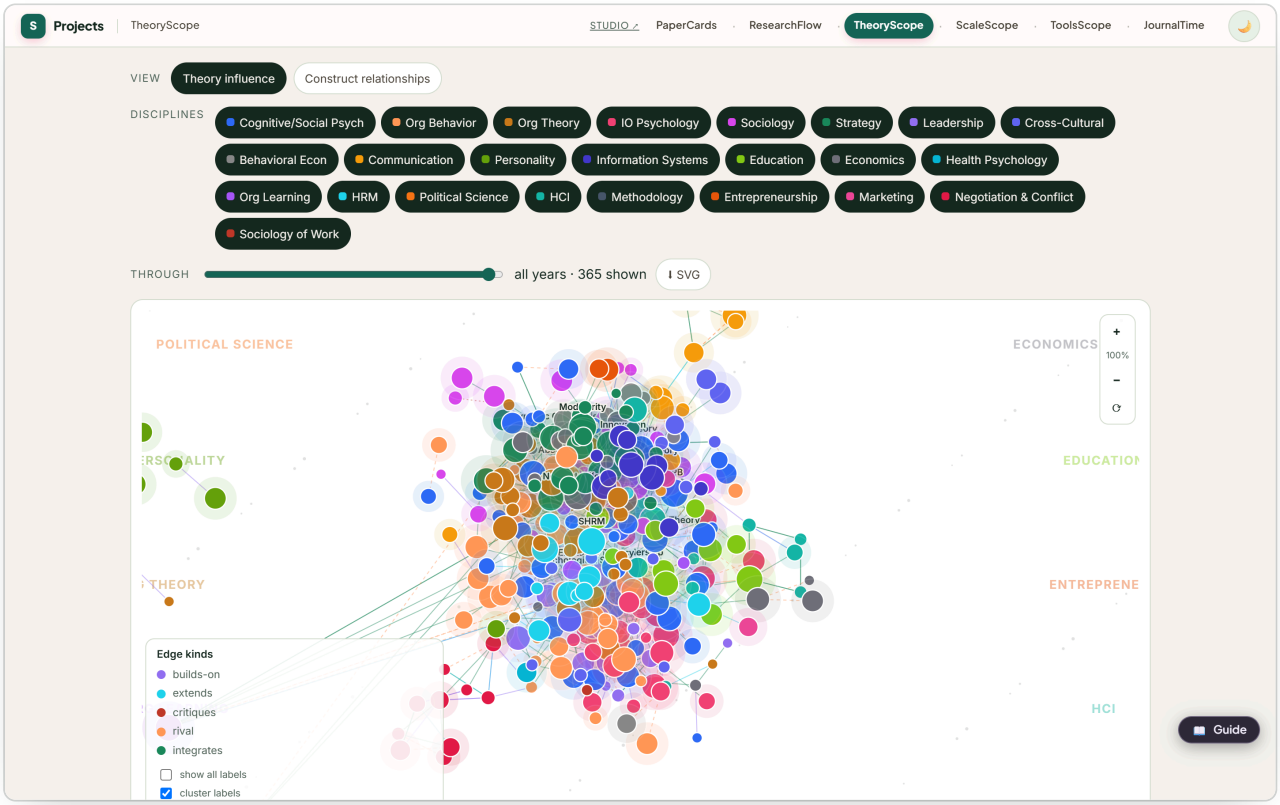

FIG 8.2 Influence Map, theory view. Filter by discipline; the `Through` slider replays the field year by year; `⬇ SVG` exports the current view.

Links on the map are typed — **builds on**, **extends**, **critiques**, **rival**, **integrates** — so it is the fastest way to find a lens's rivals and descendants. The *Construct relationships* view draws only signed propositions authored into the catalogue; theories without them do not appear, and nothing is inferred.

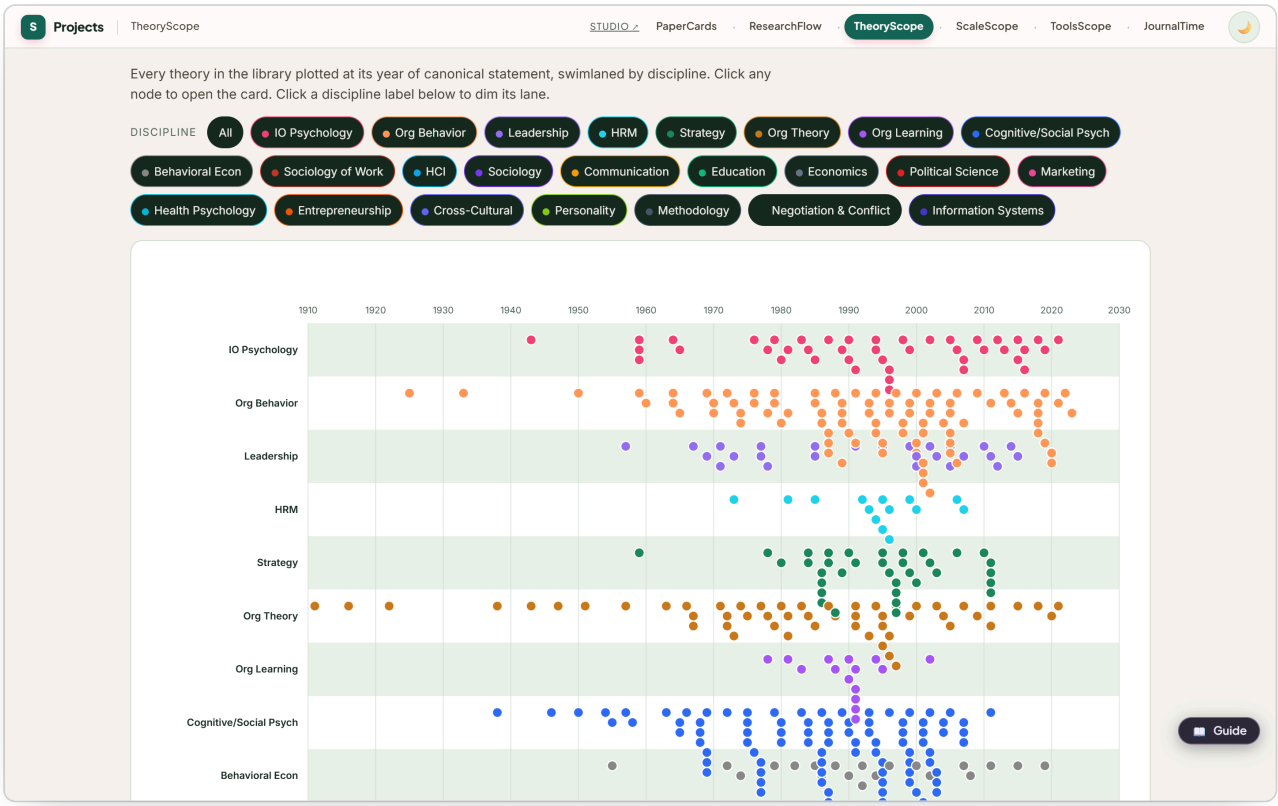

FIG 8.3 Timeline: every theory at its year, in its discipline's lane. Click a discipline to dim the others; click a dot to open the theory.

Why it looks like this

The rings put the most important quantity — *when* a theory was stated — on the strongest channel available in a radial picture: distance from the centre [15,16]. Discipline is a category, so it gets angular position and a small set of colours rather than a long rainbow [17].

Twenty-four disciplines are too many distinct hues to tell apart, so the colours group them into five families and the legend names the members [18].

Within a sector, dots are spread by the golden angle (137.5°), the packing rule of the sunflower head [14]. It fills the sector evenly without stacking dots on top of one another — and carries no meaning of its own. Dot size is the theory's recent-literature count on a log scale, so a handful of very common names cannot flatten everything else.

Glossary

Lens

The theory a study borrows to explain *why* its constructs should relate as predicted. A study can test, extend or apply a lens; it should not merely name one.

Mechanism

The process a theory says connects cause and effect — JD-R's health-impairment and motivational paths, for example. The part of a theory most worth testing.

Boundary condition

Where, when or for whom a theory is expected to hold. Whetten's *who, where, when* [1].

Rival theory

A theory that explains the same outcome through a different mechanism. Naming your rival and saying where the predictions part is the strongest defence of a choice.

Theory card

One catalogue entry: name, originators and year, discipline, level of analysis, one-line summary, proposition, mechanism, constructs, boundary conditions, critiques, key studies, measures.

Discipline

One of 24 home disciplines (IO Psychology, Org Behavior, Strategy…). It sets a theory's sector in the rings.

Edge kind

How two theories relate on the Influence Map: *builds on*, *extends*, *critiques*, *rival* or *integrates*.

Signed proposition

An authored relation between two constructs (for example demands → strain, positive). Only theories with authored relations appear on the construct map.

Recent usage

How often a theory's name or acronym appears in the Research Book's recent tier (77,411 papers, 2024 onwards) — machine-matched, shown as **↑ N recent** and always marked *verify*.

References

Every reference was resolved by its DOI against Crossref (or DataCite) and matched on first author and year before it could be cited — 18 sources in this volume. Verification date per entry is kept in `references/verified.json`.

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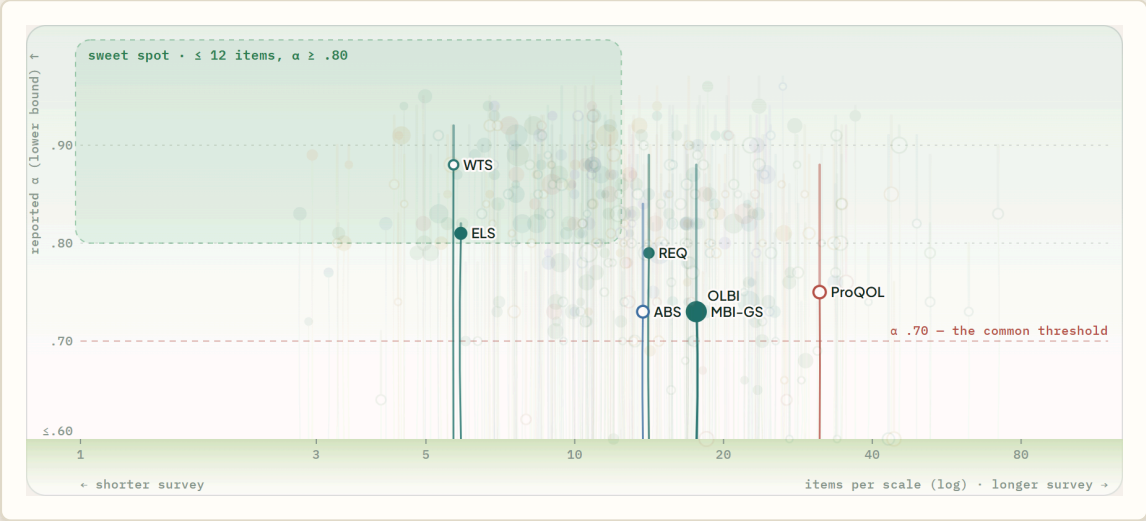
Version history & errata

This guidebook is version-controlled. Corrections are made in its source, the version number is raised, and the change is recorded here and in `CHANGELOG.md`. Report an error with the page number and the version printed in the footer.

VERSION	DATE	CHANGES
2.0.5	2026-10-18	Series back to 13 volumes (Throughline CS dropped: a separate product, not one of the Lazy Research Lad sites): covers and title pages now read 'of 13'. Text and figures unchanged.
2.0.4	2026-10-18	Series grows to 14 volumes (ScholarScope, Cadence, FallacyScope and Throughline CS added): "of 14" on the cover and title page; content unchanged.
2.0.3	2026-10-18	Series grows to ten volumes: Volume 10 (BookScope) added, so covers and title pages now read 'of 10'. Text and figures unchanged.
2.0.2	2026-10-18	Suite renamed: Throughline is now Lazy Research Lad (series, titles and text). Screenshots unchanged.
2.0.1	2026-10-17	Light cover edition: paper-cloth cover with the volume's accent spine and the live figure as a plate, captured in light theme 17 October 2026.
2.0.0	2026-10-16	Rewritten as a research guide: a worked study (burnout and engagement in long-shift nursing) taken from question to theory section — candidate search, screening criteria, rival comparison, argument map, reviewer objections and a model paragraph. Tool reference moved to the last chapter. New figures captured 16 October 2026 from the live site.
1.0.0	2026-10-16	First edition. Figures captured 16 October 2026 from the live site.

Errata

No errata recorded for this version.



SCALESCOPE

Measures you can *trust*

ScaleScope — how to choose, check and defend the instruments behind your study, with 332 validated scales.

LAZY RESEARCH LAD GUIDEBOOKS · VOL. 6

Measures you can *trust*

A working guide to the second decision reviewers question: whether your numbers measure what your theory talks about. The study from Volume 5 picks up here — four constructs, two rival burnout instruments, one gap the library cannot fill — and ends with a finished measures section.

Site. https://scalescope.vercel.app/

Version. 2.1.4 (2026–10–18) · build `3702b3b+edits` · 2026–10–18T15:45:22Z

Figures. Real screenshots of the live site, captured 2026–10–18 by `scripts/capture.mjs`; sample data shown in figures is labelled simulated where it is simulated.

Sources. 15 DOI-verified references, numbered in order of use. Nothing in this book is invented: counts and labels are read from the site or its published data.

Status. A user guide, not documentation of record. Where the site and this book differ, the site is right — please report it (see Version history).

Type. Fraunces, Plus Jakarta Sans and IBM Plex Mono (SIL Open Font License). Laid out with Paged.js.

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01

BEFORE YOU OPEN THE TOOL

What a measure has to do

A theory section promises relationships between constructs. The measures section has to show that the numbers you will analyse are those constructs — not their neighbours, and not an artefact of how you asked.

Start with definitions, not instruments. Scale developers are blunt about the order: a clear conceptual definition comes first, and items are judged against it [1,2]. If you pick an instrument first, its items quietly become your definition — and they may not be the construct your theory names.

Then separate two kinds of evidence that are often blurred. **Reliability** says the items hang together; **validity** says they measure the intended construct. A high α is consistent with both, but proves neither: α depends on the number of items, assumes every item measures the construct equally well, and says nothing about *which* construct is being measured [3,4]. The familiar ".70" cut-off is a convention whose origins are thinner than its use suggests [5].

A MEASURE EARNS ITS PLACE WHEN…

- [ ] I wrote a definition of each construct **before** searching for instruments.
- [ ] The items, read one by one, fit that definition — and nothing else.
- [ ] The instrument was validated in a population like mine, or I can say what differs.
- [ ] Its reported reliability is known, and I will report my own sample's.
- [ ] Close constructs (burnout vs engagement) can be shown to be distinct.
- [ ] Not everything is self-reported at one moment — or I can say how I limit that bias.
- [ ] I have checked the licence and can obtain the original items.

THE WORKED EXAMPLE — CONTINUED FROM VOLUME 5

The study from Volume 5 chose the Job Demands–Resources model and three hypotheses: demands relate to burnout (H1), resources to engagement (H2), and resources buffer the demand–burnout link (H3). That commits it to measuring four things:

CONSTRUCT	ROLE IN JD-R	WORKING DEFINITION (WRITTEN FIRST)
Burnout	Outcome of the health-impairment path	A state of exhaustion and mental distancing from work.
Work engagement	Outcome of the motivational path	A positive, fulfilling state of vigour, dedication and absorption in work [6].
Job demands	Shift length; workload	Aspects of the job that require sustained effort.
Job resources	Autonomy; supervisor support	Aspects of the job that help achieve goals and reduce demands.

02

FROM THE FIELD TO A SHORTLIST

Search wide, then cut

The first search should return too much. Cutting it down — for reasons you can write down — is where the measures section begins.

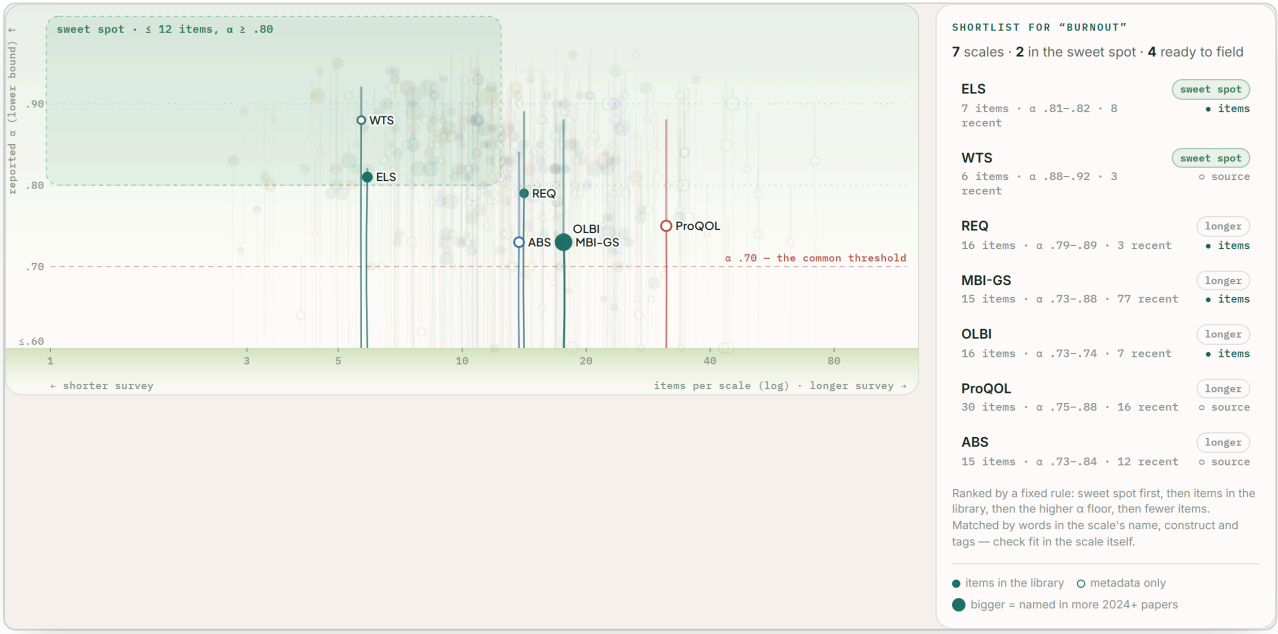

FIG 2.1 The scale field with *burnout* in **Your topic**: seven scales light, two in the sweet spot, four with items in the library. The shortlist beside it is ranked by the printed rule.

The field's shortlist is the fastest first cut, and the worked study shows why it is only a first cut. For *burnout*, ScaleScope ranks seven scales by a fixed rule: the sweet spot first (at most 12 items and a reported α floor of at least .80), then scales whose items are in the library, then the higher α floor, then fewer items.

SHORTLIST FOR "BURNOUT"	ITEMS · REPORTED A	FLAG	MEASURES BURNOUT?
ELS — Emotional Labor Scale	7 · .81–.82	sweet spot	No — emotional labour, a neighbouring construct
WTS — Workplace Telepressure Scale	6 · .88–.92	sweet spot	No — the urge to respond to work messages

REQ — Recovery Experience Questionnaire	16 · .79–.89	longer	No — recovery from work
MBI-GS — Maslach Burnout Inventory, General Survey	15 · .73–.88	longer	Yes, in employees
OLBI — Oldenburg Burnout Inventory	16 · .73–.74	longer	Yes, in employees
ProQOL — Professional Quality of Life	30 · .75–.88	longer	Partly — burnout is one subscale of a broader measure
ABS — Academic Burnout Scale	15 · .73–.84	longer	Burnout, but written for students

Read against the definition, the ranking turns over. The two sweet-spot scales are short and reliable, and they measure something else. They match because the word *burnout* appears in their catalogue tags. The two instruments that measure burnout in employees, the **MBI-GS** and the **OLBI**, sit in the middle as *longer* scales. The sweet spot ranks scales for practicality; only your definition can decide fit.

Browse gives the fuller list, with every scale whose name, construct or description uses the word.

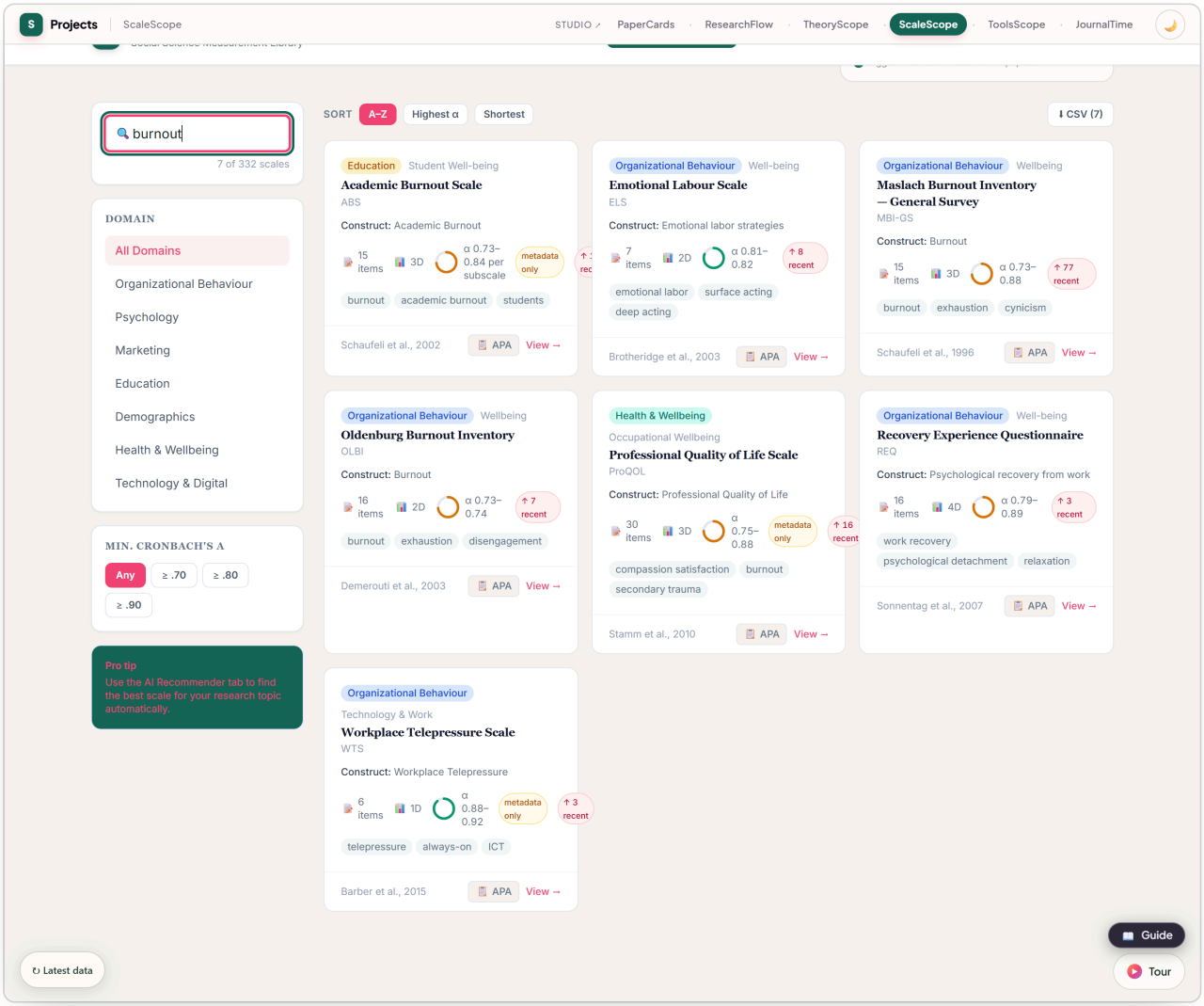

FIG 2.2 Browse Scales searched for *burnout*. Each card shows items, dimensions, the reported α as a gauge, the source and a recent-literature count where one exists.

WORKED EXAMPLE

Shortlist for burnout: **MBI-GS** and **OLBI**. For engagement, the field's shortlist puts **UWES-9** in the sweet spot (9 items, reported α .85–.92), and the JD-R card in TheoryScope already linked it — the short form the model's own literature uses [6]. Its catalogue entry: 9 items in three dimensions (vigour, dedication, absorption), a 7-point frequency scale from *0 = Never* to *6 = Always / Every day*.

LIMITS

The topic box matches words in scale names, constructs and tags; it does not read your definition. A scale named for a neighbouring construct can still be right, and one named for yours can still be wrong — the items decide.

03

MBI-GS VS OLBI

Weigh the evidence

Two credible instruments, one slot. Put the evidence side by side, decide on the criteria that matter for *your* study, and write the reason down.

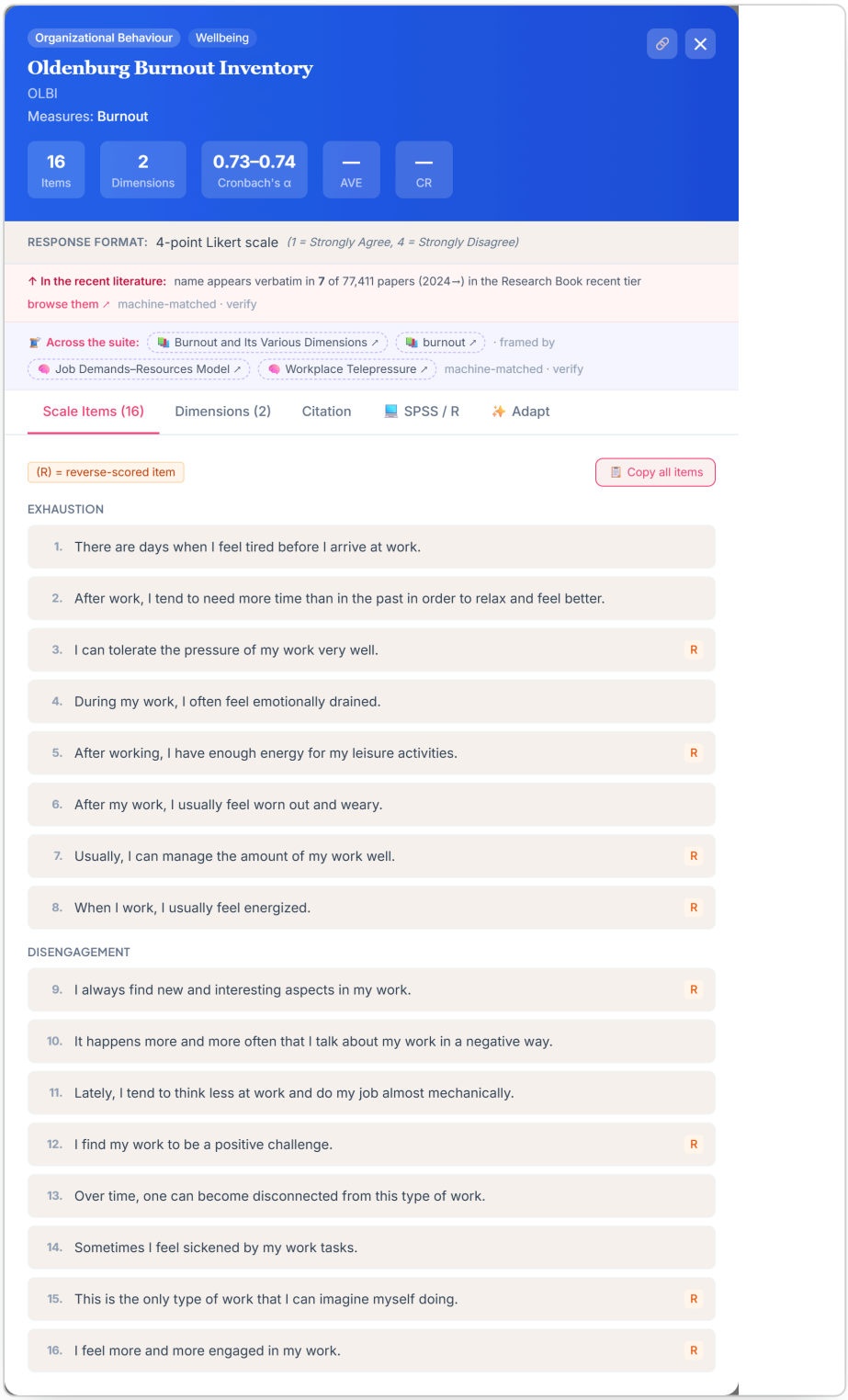

FIG 3.1 The OLBI opened: 16 items in two dimensions, a 4-point scale (*1 = Strongly Agree … 4 = Strongly Disagree*), reported α .73–.74. Reverse-scored items are flagged — four in each subscale (the list continues to item 16 on the site).

EVIDENCE (FROM EACH CATALOGUE ENTRY)	MBI-GS	OLBI
Items · dimensions	15 · exhaustion, cynicism, professional efficacy	16 · exhaustion, disengagement
Response format	7-point frequency scale	4-point agreement scale

Reported α (verbatim)	0.73–0.88 (EE .88, CY .73, PE .76)	0.73–0.74
Item wording	Exhaustion and cynicism items are negatively worded	Each subscale mixes positive and negative wording
Source	Schaufeli, Leiter, Maslach & Jackson (1996)	Demerouti, Bakker, Vardakou & Kantas [7]
Named in recent papers	77 of 77,411	7 of 77,411

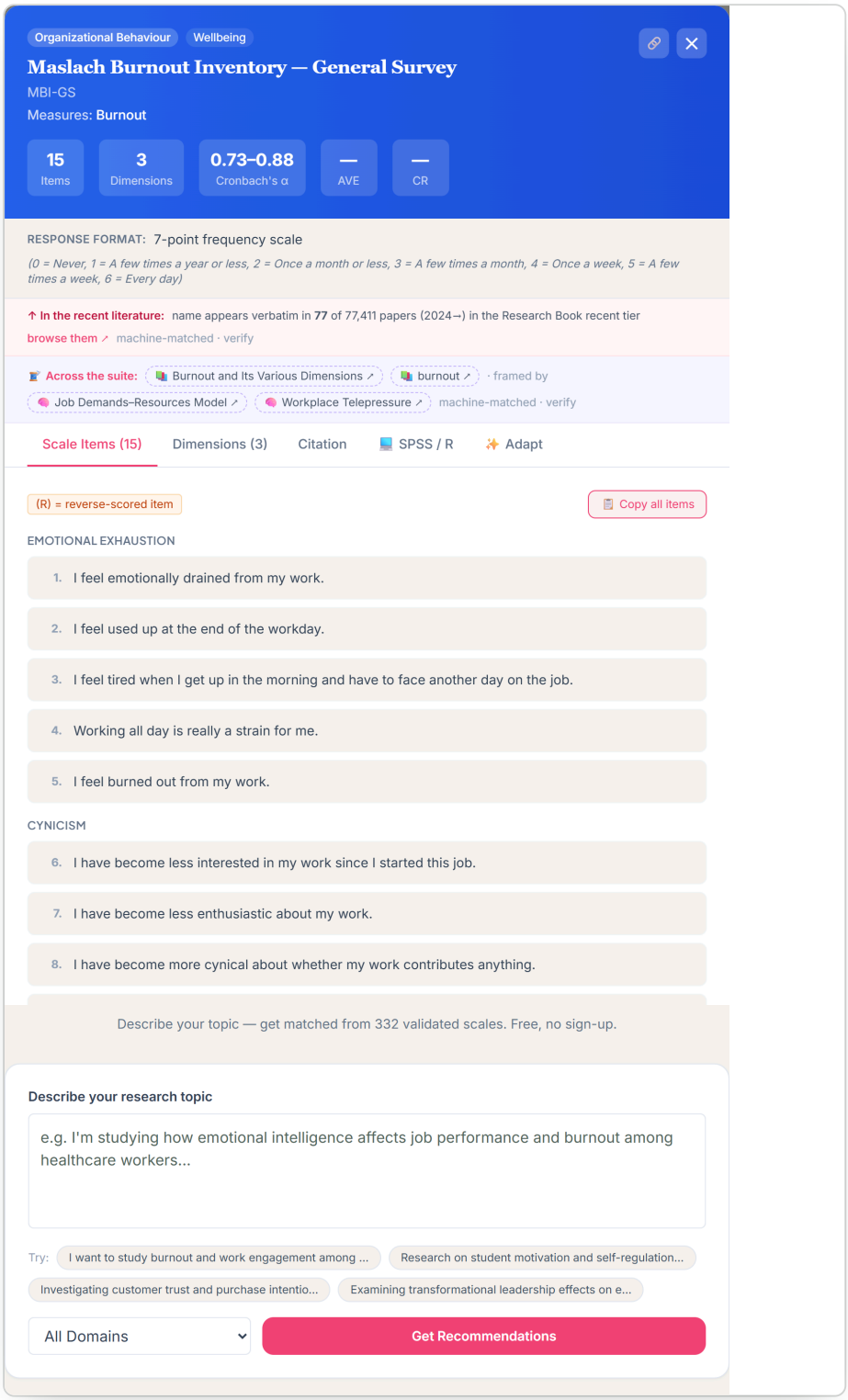

FIG 3.2 The MBI-GS opened, for comparison: 15 items in three dimensions on a 7-point frequency scale.

What the table shows. The MBI-GS has the higher reported reliability and far more recent use; it is the instrument most readers will recognise [8]. The OLBI's advantages are design ones: its two dimensions match the two parts of the working definition, its mixed wording reduces the risk that people answer by agreeing with everything, and it comes from the research group that proposed JD-R — Demerouti and Bakker are authors of both [9,7]. Its weakness is its lower reported α, which the study must answer with its own data.

WORKED EXAMPLE

Decision: OLBI for burnout, because its dimensions match the definition and the mixed wording guards against acquiescent responding — with a commitment to report α and a factor structure in this sample.

The MBI-GS stays named in the paper as the alternative considered.

LICENCES

Licensing is a selection criterion, not an afterthought. The MBI family is a commercially licensed instrument; confirm the licence before fielding any form of it, whatever wording you find online. For any scale, cite the original source for the items, not ScaleScope.

04

CONSTRUCT FIT AND GAPS

When the library falls short

A catalogue tells you what exists. It cannot make an instrument fit a construct it was not built for — and the honest response to a gap is to say so.

The resources are where this study meets the edge of the library. The Work Design Questionnaire is the catalogue's instrument for autonomy and social support at work [10].

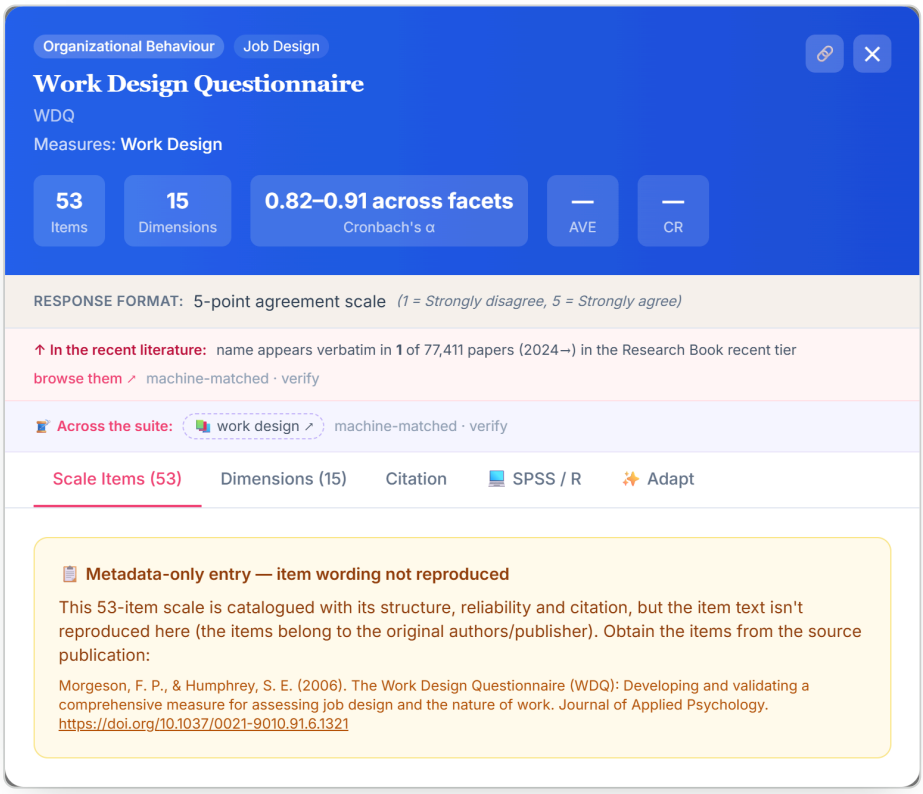

FIG 4.1 The WDQ opened: 53 items across 15 catalogued dimensions, reported α .82–.91 across facets. It is a *metadata-only* entry — the items are not reproduced; obtain them from the source.

CONSTRUCT	WHAT THE CATALOGUE OFFERS	FIT	DECISION

Autonomy	WDQ: three autonomy facets — work scheduling (3 items, α .89), decision making (3, .90), work methods (3, .87)	Good: the facets match the definition	Use the WDQ autonomy facets; items from Morgeson & Humphrey.
Supervisor support	WDQ Social Support facet (4 items, α .91)	Partial: support from people at work in general, not from supervisors	Rename the construct *social support at work* and say so — or find a supervisor-specific measure outside the catalogue.
Workload	No catalogued workload scale	None	Do not write items on the fly [2]; find a validated measure in the literature.
Shift length	Not a scale	—	Take it from roster records.

Two of those decisions change the study, and both make it stronger. Renaming *supervisor support* to *social support at work* keeps the measure honest, and the hypotheses are re-worded to match. Taking shift length from roster records means one predictor is not self-reported at all — the most direct remedy for the shared-method bias that arises when every variable comes from one survey at one time [11].

WORKED EXAMPLE

Final measurement plan: **OLBI** (burnout) · **UWES-9** (engagement) · **WDQ autonomy facets** · **WDQ social support** (construct renamed) · **shift length from rosters** · a validated workload measure located outside the catalogue. Predictors at wave one, outcomes at wave two.

05

RELIABILITY BEFORE ANALYSIS

Check it on your own data

A source's reported α describes the source's sample. Your paper needs yours — and a pilot is the cheapest place to find a problem item.

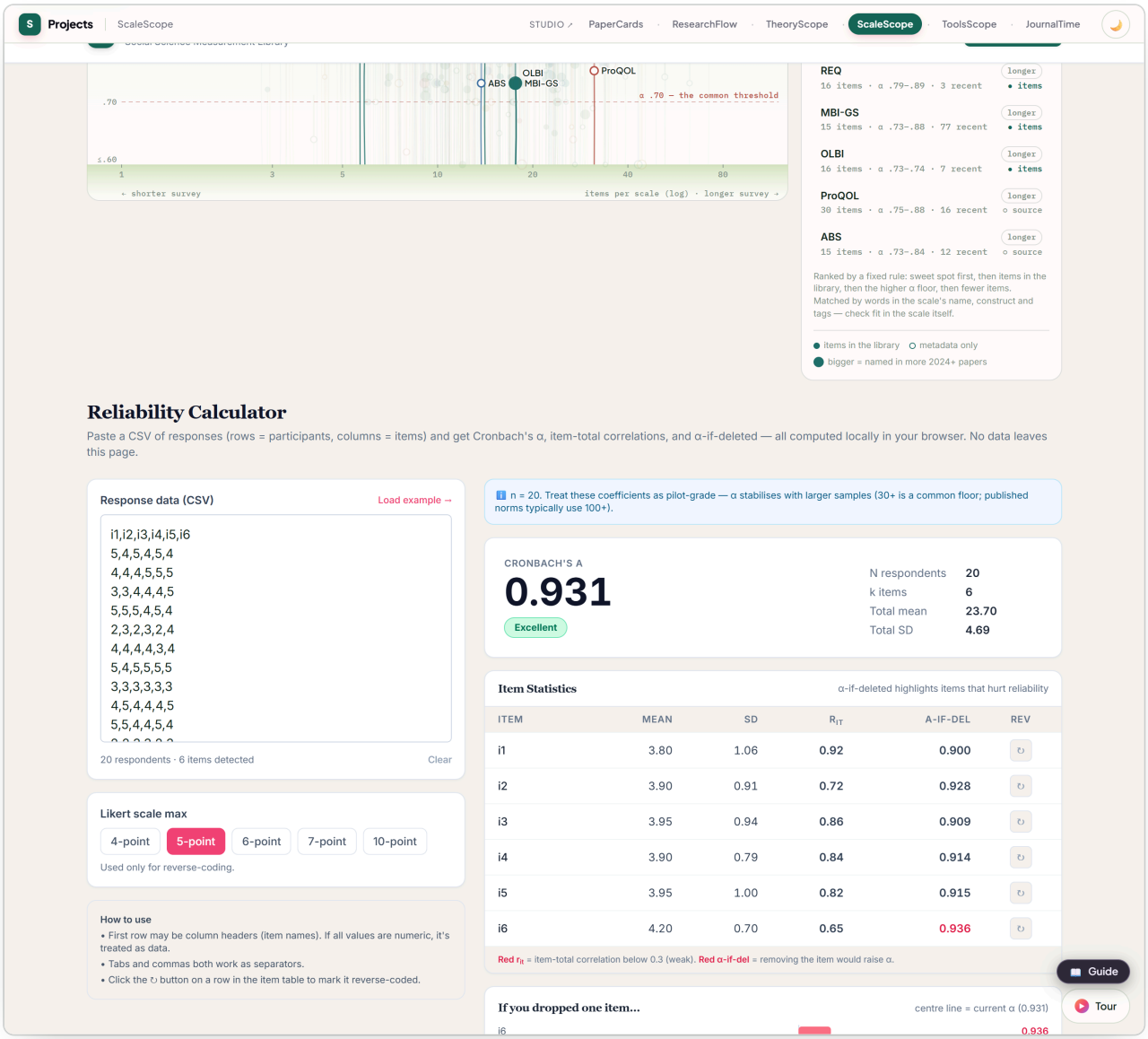

FIG 5.1 The Reliability calculator with its built-in example (six items, simulated responses): α with its confidence, item–total correlations, α-if-deleted, and the *What-if item set* panel. All computation stays in the browser.

1. Paste pilot responses for one subscale at a time — rows are people, columns are items.
2. Reverse-score negatively keyed items first. For the OLBI, half the items in each subscale are reversed; get this wrong and α collapses.
3. Read item–total correlations: an item well below about .30 is a candidate problem, not an automatic deletion.
4. Use *What-if* to see α without an item — then decide on content grounds. Dropping items to raise α changes the instrument you cite.
5. Report α (and ω where loadings differ) **per subscale** for the full sample, with n [4].

> **TIP**
> Below roughly 30 cases α swings with every added row; the calculator says so. Treat pilot coefficients as diagnostics, not results.

Because burnout and engagement are close constructs — the OLBI's disengagement and the UWES's dedication point at overlapping ideas — the study also plans a confirmatory factor analysis comparing a model with separate factors against one where they merge, judged by conventional fit cut-offs [12]. That is the evidence a reviewer will ask for (ToolsScope runs it; see Volume 7).

06

THE OBJECTIONS YOU WILL MEET

Defend it

Measurement objections are predictable. Write the answers into the paper before the reviewer asks.

REVIEWER	YOUR ANSWER
"The OLBI's reported reliability (.73–.74) is lower than the MBI-GS. Why use the weaker instrument?"	Say what the choice bought: dimensions matching your definition and mixed wording that limits acquiescence [7]. Then report α and ω for your own sample per subscale, and note the convention behind the .70 threshold [5].
"Burnout and engagement may be opposite ends of one continuum. Are you measuring the same thing twice?"	Treat it as testable. Report a confirmatory factor analysis comparing separate and merged factors, with fit indices against stated cut-offs [12], and the correlation between the two.
"Everything is self-reported, so relationships may be inflated by common method variance."	Shift length comes from roster records; predictors and outcomes are separated in time across two waves. Name the remaining self-report measures and the procedural remedies used [11].
"Your support measure is not specific to supervisors."	Agree, and show the construct was renamed and the hypotheses re-worded to match the instrument — rather than the instrument stretched to fit the construct [1].

07

FROM PLAN TO PROSE

Write the measures section

A measures section lets another researcher rebuild your instruments: name, source, items, response format, scoring, and reliability in your sample.

1. **One paragraph per construct**, in the order of the hypotheses.
2. **Name and source** of the instrument, with the citation for the items.
3. **Items and format:** number of items, an example item if the licence allows, response scale and anchors.
4. **Scoring:** reverse-keyed items and how scores are combined.
5. **Reliability in this sample** — never the source's α in place of yours.
6. **Changes:** any rewording, dropped items or renamed construct, with the reason.

MODEL PARAGRAPH

Burnout was measured with the 16-item Oldenburg Burnout Inventory [7], which assesses exhaustion and disengagement with eight items each on a four-point agreement scale. Positively worded items were reverse-scored so that higher scores indicate more burnout.

Work engagement was measured with the nine-item Utrecht Work Engagement Scale [6], rated on a seven-point frequency scale from 0 (*never*) to 6 (*always / every day*).

Autonomy was measured with the three autonomy facets of the Work Design Questionnaire, and *social support at work* with its social support facet [10]. Because the latter is not specific to supervisors, we refer to this resource as social support at work throughout. Shift length was taken from ward rosters.

Reliability coefficients for this sample are reported in Table 1.

Model paragraphs for the illustrative study. Instrument details are read from the ScaleScope catalogue entries and their sources; no results are reported. Adapt the structure — the instruments, setting and design are this example's.

BEFORE YOU SUBMIT THE SECTION

- [ ] Each construct's definition appears before its instrument.
- [ ] Every instrument is cited to its original source for the items.
- [ ] Reverse-keyed items and scoring are stated.
- [ ] Reliability is reported for this sample, per subscale.
- [ ] Discriminant evidence is planned or reported for close constructs.
- [ ] Any renamed construct or changed item is stated, with the reason.
- [ ] Licences for commercial instruments were obtained.

08

REFERENCE

ScaleScope at a glance

The tabs, the scale field and the scale window — for when you know what you want to do and need to find where it lives.

TAB	USE IT TO…
✨ **Recommender**	Describe your topic and get scales matched from the catalogue; check each one's items.
Browse Scales	Filter by domain, subdomain and minimum α; sort by name, highest α or fewest items (Chapter 2).
Comparator	Put two scales side by side with an AI-written comparison; check it against both sources.
Survey Composer	Assemble a questionnaire from several scales and export it.
Reliability	Paste your own responses and compute α, item–total correlations and α-if-deleted (Chapter 5).

SCALE WINDOW SECTION	WHAT IT HOLDS
Scale Items	The verbatim items for the 178 scales whose wording can be reproduced; otherwise *metadata only*.
Dimensions	Each dimension with its item count and reported α.
Citation	The development paper, studies using the scale (searched live in OpenAlex), and reliability notes.
💻 **SPSS / R**	Ready syntax for scoring and reliability.
✨ **Adapt**	AI rewording for a population or setting — labelled *Adapted draft — review before use*; a draft, not a validated instrument.

Reading the field

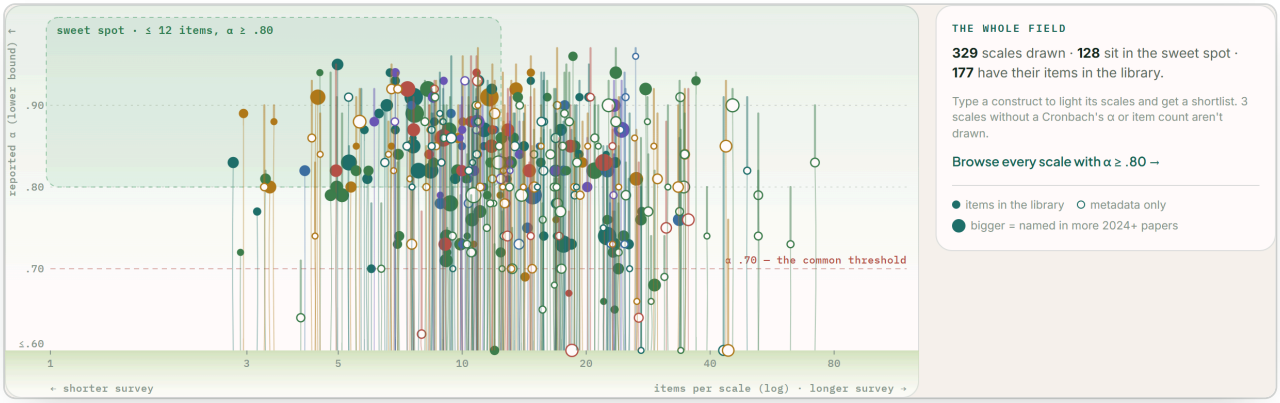

FIG 8.1 The whole field with no topic: 329 scales drawn, 128 in the sweet spot, 177 with their items in the library. Three scales without a Cronbach's α or an item count are not drawn, and the panel says so.

WHAT YOU SEE	WHAT IT MEANS
Position left to right	Number of items, on a log scale: shorter surveys to the left.
Height of a flower	The **lower** bound of the source's reported Cronbach's α; a thin line rises to the upper bound. Below .60 a flower rests on the floor.
Shaded corner	The sweet spot: at most 12 items and α of at least .80.
Filled or hollow	Filled: the items are in the library. Hollow: metadata only; obtain the items from the source.
Size	How often the scale is named in Research Book papers from 2024 on (a usage hint; verify).
Colour	The scale's domain.
Your topic	Lights scales whose name, construct or tags carry your words, names them on the chart, and builds the ranked shortlist.

Hovering a flower shows the source's reliability string exactly as reported; clicking it opens the scale. With no topic, the panel offers **Browse every scale with α ≥ .80**; with a topic, **See all in Browse** carries the search across.

> **HONEST DATA**
> The reliability string is shown verbatim. Coefficients that are not Cronbach's α, such as an intraclass correlation, an ω or a test–retest coefficient, are not drawn, so a scale is never placed on a number it does not report.

Why it looks like this

The field answers one practical question: which scale for my construct is short *and* reliable? The two quantities that decide it get the two position channels, the most accurately read encodings [13]. Items run along the horizontal axis and reported reliability up the vertical.

The item axis is logarithmic, because the difference between 6 and 12 items matters to a respondent far more than the difference between 60 and 66. The reliability axis starts at α .60, and anything lower rests on a floor marked ≤ .60. Starting an axis above zero is acceptable when it is disclosed and meaningful [14]; the .70 and .80 guides make the scale explicit.

Each flower stands at the **lower** bound of its reported α, the conservative reading, with a thin line up to the upper bound. Filled versus hollow is a two-value category (items in the library or metadata only), so it uses fill rather than colour. Colour is reserved for domain; size, the weakest channel, carries only the soft signal of recent use.

The shortlist turns the picture into an ordered decision with a rule printed beneath it. A ranking the reader can check is more honest than one hidden in a picture.

Glossary

Construct definition

One or two sentences saying what the construct is and is not — written before you look at instruments, so the instrument is judged against the idea and not the other way round [1].

Content validity

Whether the items cover the construct as defined, and nothing else. Judged by reading the items against the definition.

Discriminant validity

Evidence that two measures capture different constructs — essential when two constructs are close, such as burnout and engagement.

Cronbach's α

An index of internal consistency: how strongly a scale's items hang together [15]. ScaleScope shows the α the scale's source reports.

ω (omega)

A reliability coefficient that relaxes α's equal-loading assumption [4]; ToolsScope computes both.

Item–total correlation

How strongly one item tracks the rest of the scale; values below about .30 are a common flag.

Common method variance

Shared variance that comes from measuring everything the same way (for example, one self-report survey at one time) rather than from the constructs [11].

Metadata-only entry

A catalogued scale whose item wording is not reproduced in ScaleScope; obtain the items from the original source.

References

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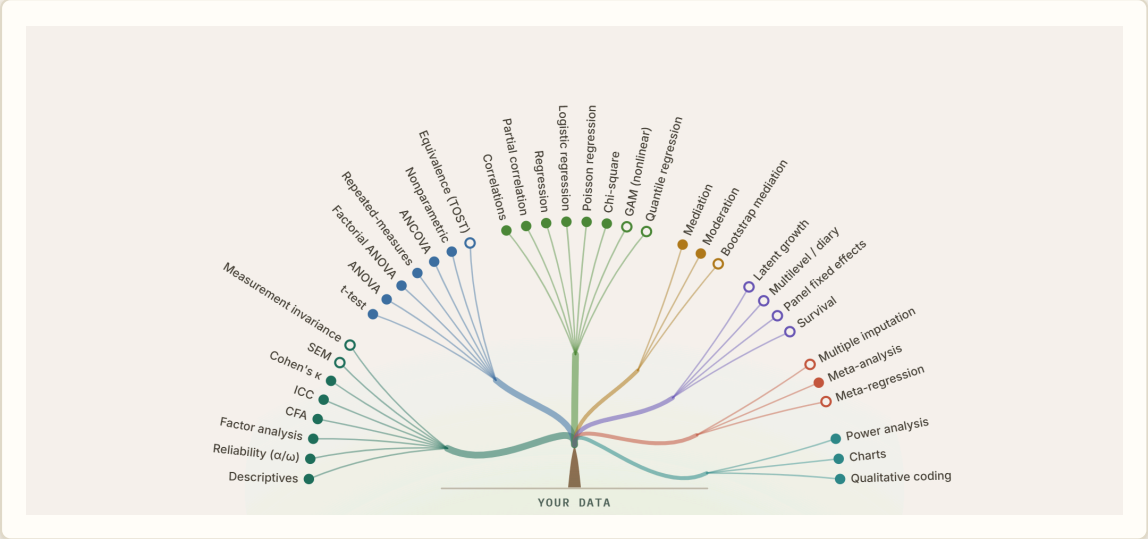
Version history & errata

This guidebook is version-controlled. Corrections are made in its source, the version number is raised, and the change is recorded here and in `CHANGELOG.md`. Report an error with the page number and the version printed in the footer.

VERSION	DATE	CHANGES
2.1.4	2026-10-18	Series back to 13 volumes (Throughline CS dropped: a separate product, not one of the Lazy Research Lad sites): covers and title pages now read 'of 13'. Text and figures unchanged.
2.1.3	2026-10-18	Series grows to 14 volumes (ScholarScope, Cadence, FallacyScope and Throughline CS added): "of 14" on the cover and title page; content unchanged.
2.1.2	2026-10-18	Series grows to ten volumes: Volume 10 (BookScope) added, so covers and title pages now read 'of 10'. Text and figures unchanged.
2.1.1	2026-10-18	Suite renamed: Throughline is now Lazy Research Lad (series, titles and text). Screenshots unchanged.
2.1.0	2026-10-17	Interior rewritten for the scale field, which replaced the meadow on the live site: Chapter 2 now cuts the field's ruled burnout shortlist against the definition; the reference chapter reads the field; design notes rewritten. Figures recaptured 17 October 2026.
2.0.1	2026-10-17	Light cover edition: paper-cloth cover with the volume's accent spine and the live figure as a plate, captured in light theme 17 October 2026.
2.0.0	2026-10-16	Rewritten as a research guide continuing the Volume 5 study: construct definitions, candidate search, an MBI-GS vs OLBI evidence table, construct fit and gaps, reliability on your own data, reviewer objections and a model measures paragraph. Tool reference moved to the last chapter. New figures captured 16 October 2026; 6 new verified references.
1.0.0	2026-10-16	First edition. Figures captured 16 October 2026 from the live site.

Errata

VERSION	WHERE	CORRECTION
2.1.0	Ch 2 and Ch 8 (meadow sections replaced)	Interior rewritten for the scale field, which replaced the meadow on the live site: Chapter 2 now cuts the field's ruled burnout shortlist against the definition; the reference chapter reads the field; design notes rewritten. Figures recaptured 17 October 2026.



TOOLSSCOPE

Test what the theory *predicts*

ToolsScope — how to plan, run, read and report the analysis behind your hypotheses, in the browser.

Test what the theory *predicts*

A working guide to the step where a study can still go wrong after everything else went right: the analysis. The study from Volumes 5 and 6 arrives with its hypotheses and measures; here it gets an analysis plan, a measurement check, a test of the one prediction only its theory makes, and an honest results section. The data are simulated, and say so on every page.

Site. https://toolsscope.vercel.app/

Version. 2.0.5 (2026–10–18) · build `3702b3b+edits` · 2026–10–18T15:45:22Z

Figures. Real screenshots of the live site, captured 2026–10–18 by `scripts/capture.mjs`; sample data shown in figures is labelled simulated where it is simulated.

Sources. 22 DOI-verified references, numbered in order of use. Nothing in this book is invented: counts and labels are read from the site or its published data.

Status. A user guide, not documentation of record. Where the site and this book differ, the site is right — please report it (see Version history).

Type. Fraunces, Plus Jakarta Sans and IBM Plex Mono (SIL Open Font License). Laid out with Paged.js.

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01

BEFORE YOU OPEN THE DATA

Plan before you look

The most consequential analysis decisions are made before any number is computed. Make them on paper, while you still cannot know which choice gives the result you hope for.

Every dataset allows many reasonable analyses: which covariates, which exclusions, which outcome, which transformation. Choosing among them *after* seeing results inflates false positives dramatically, even when each choice looks defensible on its own [1]. The remedy is a plan written first — and, where you can, registered with a timestamp before the data arrive [2].

A plan does not stop you exploring. It separates the analyses that **test** your hypotheses from the ones that **explore** beyond them, so readers can weigh each correctly.

THE WORKED EXAMPLE — CONTINUED FROM VOLUMES 5 AND 6

The study (Volumes 5–6) has three hypotheses from the JD-R model and a measurement plan. Written out as an analysis plan:

HYPOTHESIS	TEST	SUPPORTS IT	COUNTS AGAINST IT
Measures	Reliability per scale; CFA, one factor vs two (burnout, engagement)	α/ω acceptable; two factors fit clearly better	One factor fits as well — the two measures are not distinct
H1 Demands → burnout	Correlation; then the X term in the moderation model	Positive association	Null or negative association
H2 Resources → engagement	Correlation	Positive association	Null or negative association
H3 Resources buffer demands	Moderation (PROCESS Model 1): shift hours × autonomy → burnout	Negative interaction; demand slope weaker at high autonomy	Null or positive interaction

A PLAN IS READY WHEN…

- [ ] Each hypothesis has one primary test, named in advance.
- [ ] The decision rule (what supports, what counts against) is written down.
- [ ] Exclusions, missing-data handling and covariates are decided before analysis.
- [ ] Exploratory analyses are labelled as exploratory.
- [ ] The sample size was planned for the smallest effect worth detecting — including the interaction.

02

THE SIMULATED DATASET

Load and look

This volume needs data, and the study is illustrative — so the data are simulated, from a model stated in full. They teach the procedure; they are not evidence about nurses.

SIMULATED DATA — HOW THEY WERE MADE

The file `nursing-simulated.csv` (240 rows) was generated by a short, seeded script published with the guidebooks (`data/sim_nursing.py`). In standardised units: burnout = .40 × demands − .30 × autonomy − .20 × support − .22 × demands × autonomy + noise; engagement = .35 × autonomy + .25 × support − .30 × burnout + noise. Demands are shift length (8, 10 or 12 hours). Items are noisy indicators of each construct; OLBI items are supplied already reverse-coded.

Because the true model is known, you can see whether the analysis recovers it — the one thing real data never allow.

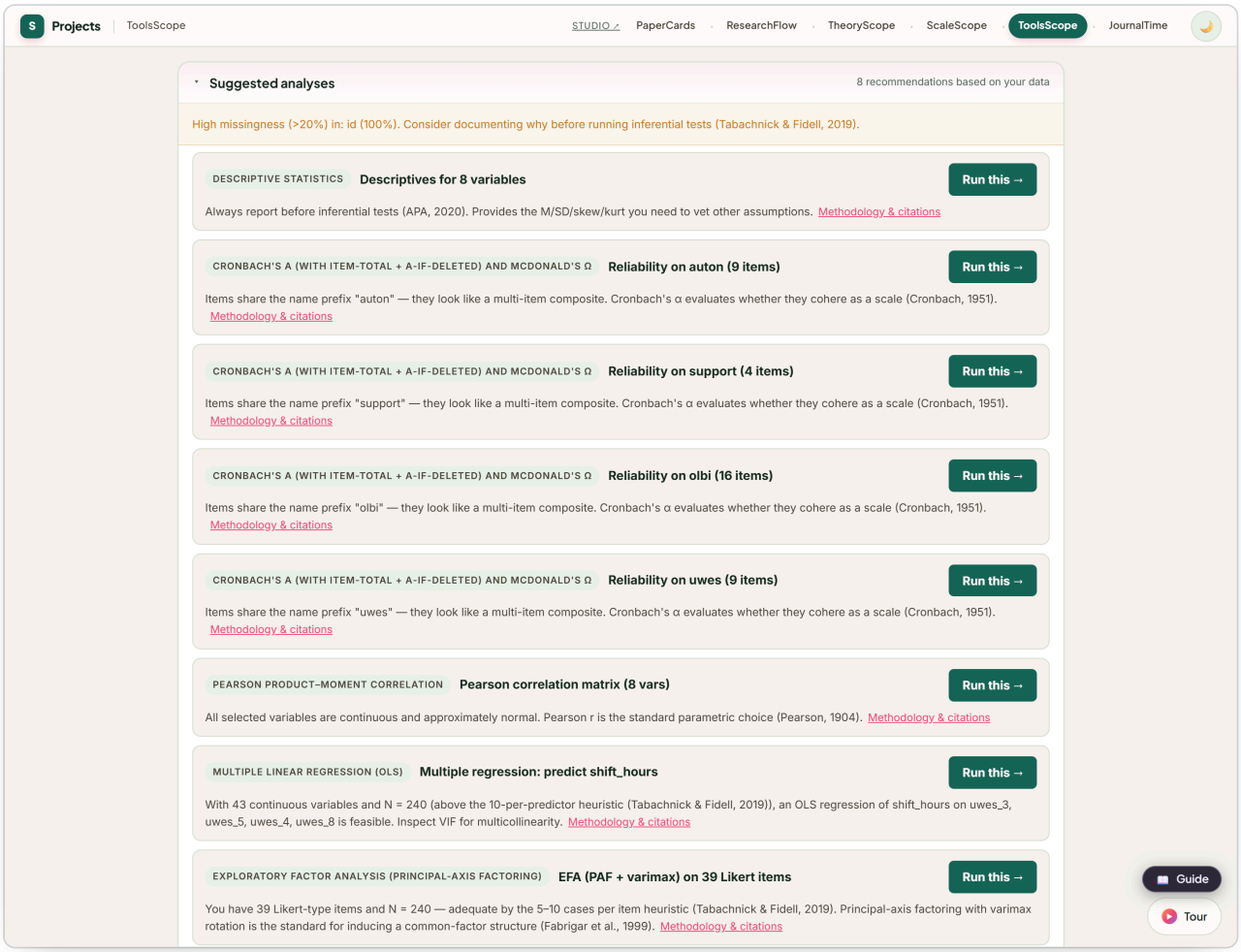

FIG 2.1 The simulated file uploaded. ToolsScope profiles the variables and proposes analyses — here, reliability for each multi-item set (autonomy, support, OLBI, UWES), a correlation matrix and an exploratory factor analysis — each with its reason and citation.

Read the suggestions as a checklist, not a plan. They are generated from variable types and names; one of them proposes predicting *shift_hours* from the item sets, which makes no sense for this study. The analysis plan from Chapter 1 decides what runs.

03

BEFORE TESTING ANY HYPOTHESIS

Measurement first

A hypothesis test is only as good as the scores going into it. Check reliability and structure before you look at a single relationship.

α = 0.836 **ω ≈ 0.836** 16 items · N = 240 complete cases

olbi_1	0.469	0.826
olbi_2	0.422	0.828
olbi_3	0.378	0.831
olbi_4	0.487	0.825
olbi_5	0.458	0.826
olbi_6	0.505	0.824
olbi_7	0.462	0.826
olbi_8	0.530	0.822
olbi_9	0.414	0.829
olbi_10	0.415	0.829
olbi_11	0.414	0.829
olbi_12	0.391	0.830
olbi_13	0.439	0.827
olbi_14	0.458	0.826
olbi_15	0.461	0.826
olbi_16	0.448	0.827

Confirmatory measurement (single-factor)

ω/CR = 0.867 **AVE = 0.290** ω/CR ≥ .70 (acceptable reliability) · AVE < .50 — weak convergent validity

FIG 3.1 Reliability of the 16 OLBI items (simulated): α = .836, ω = .836, N = 240. The columns give each item's item–total correlation and α if that item were deleted. Below: the single-factor check — ω/CR = .867, AVE = .290.

Two readings. α and ω agree and clear the usual bar, so the composite is consistent enough to analyse. But the **AVE of .29** says that on average the items share less than a third of their variance with the factor — below the .50 often used as a convergent-validity threshold [3]. In these simulated data that is by

construction (the OLBI items were generated with extra noise); in real data it would be worth reporting and discussing, not hiding.

Are burnout and engagement distinct?

Volume 6 promised evidence that the two outcomes are different constructs. The test is to compare two measurement models: one where the OLBI and UWES items load on separate, correlated factors, and one where all 25 items load on a single factor.

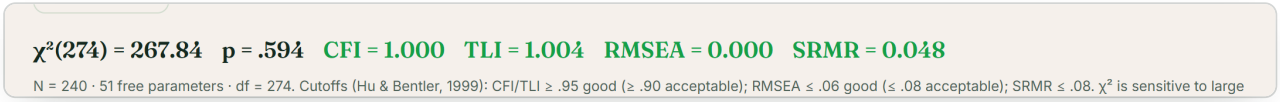

FIG 3.2 Two-factor CFA (simulated): $\chi^2(274) = 267.84$, p = .594, CFI = 1.000, TLI = 1.004, RMSEA = 0.000, SRMR = 0.048.

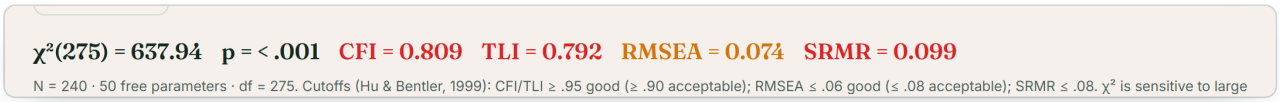

FIG 3.3 One-factor CFA on the same 25 items (simulated): $\chi^2(275) = 637.94$, p < .001, CFI = .809, TLI = .792, RMSEA = .074, SRMR = .099.

Against conventional cut-offs (CFI/TLI ≥ .95, RMSEA ≤ .06, SRMR ≤ .08 [4]) the two-factor model fits and the one-factor model does not: merging burnout and engagement costs a great deal of fit. That is the discriminant evidence a reviewer will ask for.

> **LIMITS**
> Simulated items load on exactly one factor and nothing else, so the two-factor fit here is better than real survey data usually achieve. Expect real CFI values below 1 and some misfit to explain; the comparison between the two models is what carries the argument.

04

H1, H2 AND THE MODERATION

Test the prediction only your theory makes

H1 and H2 are predicted by almost every stress theory. H3 — the buffering interaction — is the one that tests JD-R. Give it the most care.

The direct associations come first. In the simulated data, Pearson correlations are in the predicted directions: shift hours with burnout $r = .35$, autonomy with burnout $r = -.37$, autonomy with engagement $r = .50$, support with engagement $r = .41$ (all N = 240). H1 and H2 are consistent with the data — as the generating model guarantees.

The interaction

X (FOCAL PREDICTOR): shift_hours | W (MODERATOR): autonomy | Y (OUTCOME): burnout

PROCESS Model 1. X and W mean-centred before forming the interaction term.

$b_{XW} = -0.089$ $p = < .001$ $R^2 = 0.281$ $\Delta R^2 = 0.039$

shift_hours	0.107	0.017	< .001
autonomy	-0.231	0.037	< .001
shift_hours × autonomy	-0.089	0.025	< .001

Simple slopes of burnout on shift_hours at moderator levels

−1 SD	2.33	0.172	0.025	6.85	< .001
Mean	3.05	0.107	0.017	6.18	< .001
+1 SD	3.78	0.043	0.025	1.70	.091

FIG 4.1 Moderation, PROCESS Model 1 (simulated): X = shift hours, W = autonomy, Y = burnout, both predictors mean-centred. Interaction b = −0.089, SE = 0.025, p < .001; $R^2 = .281$; $\Delta R^2 = .039$. Simple slopes of burnout on shift hours at autonomy −1 SD (2.33), mean (3.05) and +1 SD (3.78).

AUTONOMY	SLOPE OF BURNOUT ON SHIFT HOURS	SE	P
Low (−1 SD, 2.33)	0.172	0.025	< .001
Average (3.05)	0.107	0.017	< .001
High (+1 SD, 3.78)	0.043	0.025	.091

Read the slopes, not just the interaction's *p*. Each extra hour of shift is associated with more burnout when autonomy is low (0.172 scale points per hour), less when it is average (0.107), and with no reliable association when autonomy is high (0.043, $p = .091$). That is the buffering pattern H3 predicts — the demand–strain link weakens as the resource grows.

- Mean-centring makes the lower-order coefficients interpretable (the shift-hours slope at average autonomy). It does not cure collinearity, and it does not change the interaction test [5].
- Pick-a-point slopes (±1 SD) are a convention; the Johnson–Neyman technique finds the exact moderator value where the slope stops being significant [6].
- Plot the interaction. A figure of the simple slopes is clearer to readers than the coefficient table [7].

05

SIZE, UNCERTAINTY, DESIGN

Read the result honestly

A significant interaction is where interpretation starts. How big is it, how certain, and what can this design actually show?

QUESTION	IN THE WORKED EXAMPLE
How big?	The interaction adds $\Delta R^2 = .039$ — about 4 percentage points of burnout variance beyond the main effects. Modest in absolute terms; interactions in field data are typically small [8].
How certain?	Report estimates with standard errors or intervals, not just *p*. A *p* value does not measure the size or importance of an effect [9,10].
Enough data?	Interactions need much larger samples than main effects to detect reliably [8]. Plan N for the interaction, not for H1.
Causal?	No. Two waves of self-report and roster data show associations consistent with JD-R; they do not show that autonomy *causes* the weaker link.
Independent observations?	Nurses work in wards. If wards differ systematically, observations are not independent — a multilevel model (Research Lab: *Diary / multilevel random slopes*, lme4 [11]) is the honest check.

HONEST DATA

Because the data were simulated from a model with a true interaction, finding it here demonstrates the procedure — nothing more. In a real study the same steps can and should be able to return a null.

06

THE OBJECTIONS YOU WILL MEET

Defend it

Results sections are reviewed for what was not done as much as for what was. Answer the obvious questions in the paper.

REVIEWER	YOUR ANSWER
"The interaction explains under 4% of variance. Is it meaningful?"	Say so plainly and put it in context: field interactions are typically small and hard to detect [8]. Show the simple slopes — the demand association roughly quarters from low to high autonomy — and let readers judge practical importance.
REVIEWER	YOUR ANSWER
"Nurses are nested in wards; your standard errors are too small."	Report the ward-level intraclass correlation and re-estimate with ward as a random effect (lme4 in the Research Lab [11]). If conclusions hold, say so; if not, report the multilevel result as primary.
REVIEWER	YOUR ANSWER
"With so many possible analyses, you would have found something."	Point to the preregistered plan: one primary test per hypothesis, decision rules stated in advance [2,1]. Label everything else exploratory.
REVIEWER	YOUR ANSWER
"You tested the interaction at ±1 SD only."	Add the Johnson–Neyman region of significance [6] and a plot across the full range of autonomy.

07

FROM OUTPUT TO PROSE

Write the results

Report in the order of the plan: measurement, then each hypothesis, then anything exploratory — with estimates, uncertainty and the test you said you would run.

1. **Measurement:** reliability per scale; the CFA comparison with fit indices and cut-offs.
2. **Descriptives and correlations:** a table, with N.
3. **Each hypothesis**, in order: the planned test, the estimate with SE or CI, and the decision.
4. **The interaction:** coefficient, ΔR^2, simple slopes and a figure.
5. **Robustness and exploration:** clearly labelled, after the planned tests.

MODEL PARAGRAPH

A two-factor measurement model separating burnout (OLBI) and work engagement (UWES-9) fitted the data well, $\chi^2(274) = 267.84$, CFI = 1.00, RMSEA = .00, SRMR = .05, whereas a single-factor model did not, $\chi^2(275) = 637.94$, CFI = .81, RMSEA = .07, SRMR = .10 [4].

As predicted by H3, autonomy moderated the association between shift length and burnout, $b = -0.09$, $SE = 0.03$, $p < .001$, $\Delta R^2 = .04$. Longer shifts were associated with more burnout among nurses with low autonomy (simple slope = 0.17, $p < .001$) and at average autonomy (0.11, $p < .001$), but not among nurses with high autonomy (0.04, $p = .091$; Figure 2).

Model paragraph written from the SIMULATED dataset's results to show structure and reporting detail. These numbers are not findings and must not be cited; replace every one with your own.

BEFORE YOU SUBMIT THE SECTION

- [ ] Every planned test is reported, including any that did not support a hypothesis.
- [ ] Estimates come with SEs or intervals, not only *p*.
- [ ] The interaction is shown as simple slopes and a figure.
- [ ] Nesting, missing data and exclusions are addressed.
- [ ] Exploratory analyses are labelled as such.
- [ ] Captured analyses and their scripts are exported with the paper.

In ToolsScope, each analysis has `✎ Write up (APA)` for a draft, `Script` for the same analysis as code, and `Capture for report`; `⬇ Export Word report` collects every captured analysis, and `✍ Send to JournalTime` carries Methods and Results into the writing step (Volume 8).

08

REFERENCE

ToolsScope at a glance

The tabs, the method tree and the R engines — for when you know what you want to run and need to find where it lives.

TAB	USE IT TO…
✨ Plan	Describe your study and get a sequenced analysis plan — before you have data.
Data	Upload CSV, Excel or a Studio/Cadence JSON export; paste a table; or load a simulated sample.
Analyze	Run any of 20 analyses with method card, assumptions, write-up and script.
Research Lab	Run the 12 open-source R workflows and keep an audit trail.
Visualize · Qualitative · Meta-analysis · Power	Charts; text coding and themes [12]; pooling effects [13]; sample size [14].

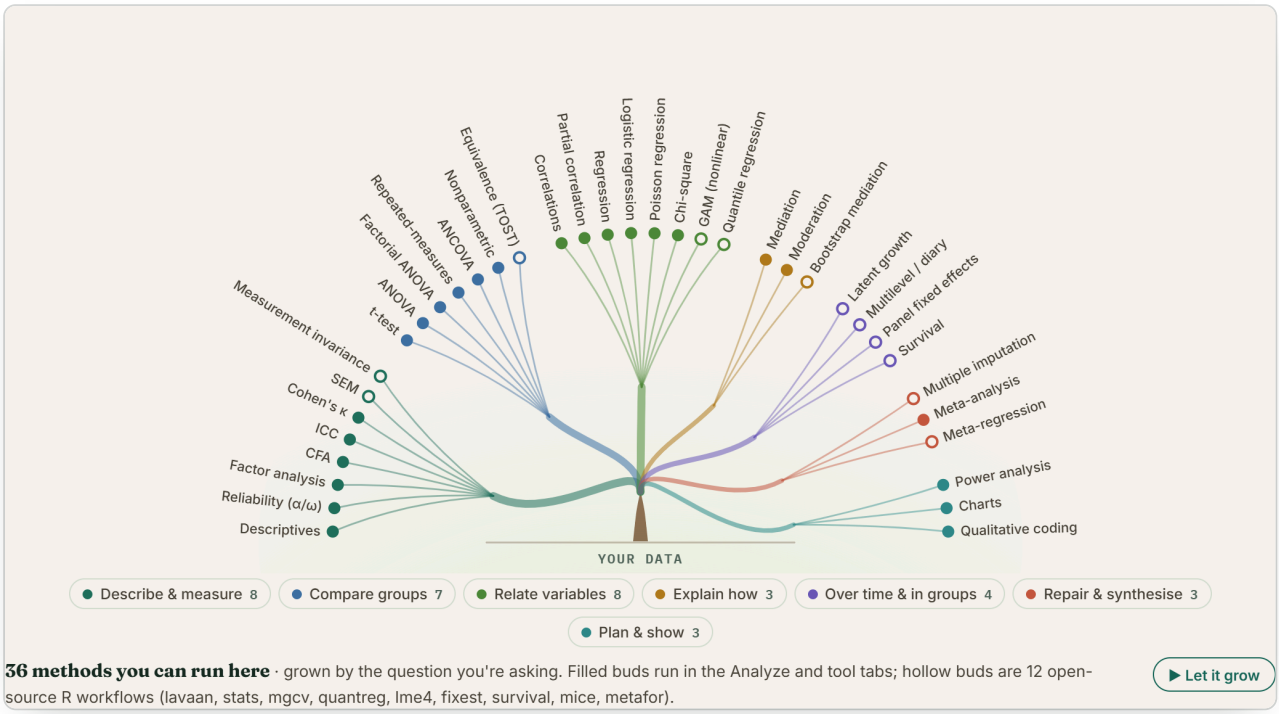

FIG 8.1 The method tree: every runnable method on seven question branches. Filled buds run in the Analyze and tool tabs; hollow buds are the 12 R workflows. The interaction test of Chapter 4 is on the *Explain how* branch.

R WORKFLOW	PACKAGE
CFA & SEM · Measurement invariance · Latent growth · Bootstrap indirect effects	lavaan [15]
Diary / multilevel random slopes	lme4 [11]
Multiple imputation & pooled regression	mice [16]
REML meta-analysis & meta-regression	metafor [17]
Time-to-event & survival	survival (Cox models [18])
Nonlinear additive relationships · Quantile regression · Equivalence (TOST)	mgcv [19] · quantreg [20] · stats [21]
Panel fixed effects with clustered inference	fixest

HONEST DATA

The built-in statistics engine is hand-written and checked against textbook values on every change; computation happens in your browser. The R workflows record package versions, seed and warnings, and export a ZIP whose script runs unchanged in desktop R.

Why it looks like this

The method tree shows no data at all, which is exactly why it can be decorative: it is a navigation device, a map of what can be run. Every leaf leads to a real route, and labels are read from the code so the picture cannot list a method that does not exist.

The branches are a reading guide by question. A different but equally valid tree could be drawn by data type or by assumption; this one follows the questions researchers usually ask first [22].

Glossary

Analysis plan

A written mapping from each hypothesis to the test, variables and decision rule — fixed before the data are analysed, ideally preregistered [2].

Moderation

When the strength or direction of X's association with Y depends on a third variable W; tested by the X × W interaction term [7].

Simple slope

The X → Y slope at a chosen value of the moderator (here: one SD below the mean, the mean, one SD above).

ΔR^2

The extra variance in Y explained when the interaction term is added — an effect size for the moderation.

AVE

Average variance extracted: the mean squared standardised loading of a factor's items. Below .50 suggests weak convergent validity [3].

Simulated data

Data generated from a stated model for teaching. They show how a procedure works; they are not evidence about anyone.

R workflow

One of 12 analyses run by real open-source R packages inside your browser via webR.

References

Every reference was resolved by its DOI against Crossref (or DataCite) and matched on first author and year before it could be cited — 22 sources in this volume. Verification date per entry is kept in `references/verified.json`.

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16 Buuren, S. V., & Groothuis-Oudshoorn, K. (2011). mice: Multivariate Imputation by Chained Equations inR. Journal of Statistical Software, *45*(3). https://doi.org/10.18637/jss.v045.i03

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22 Munzner, T. (2014). Visualization Analysis and Design. A K Peters/CRC Press. https://doi.org/10.1201/b17511

Version history & errata

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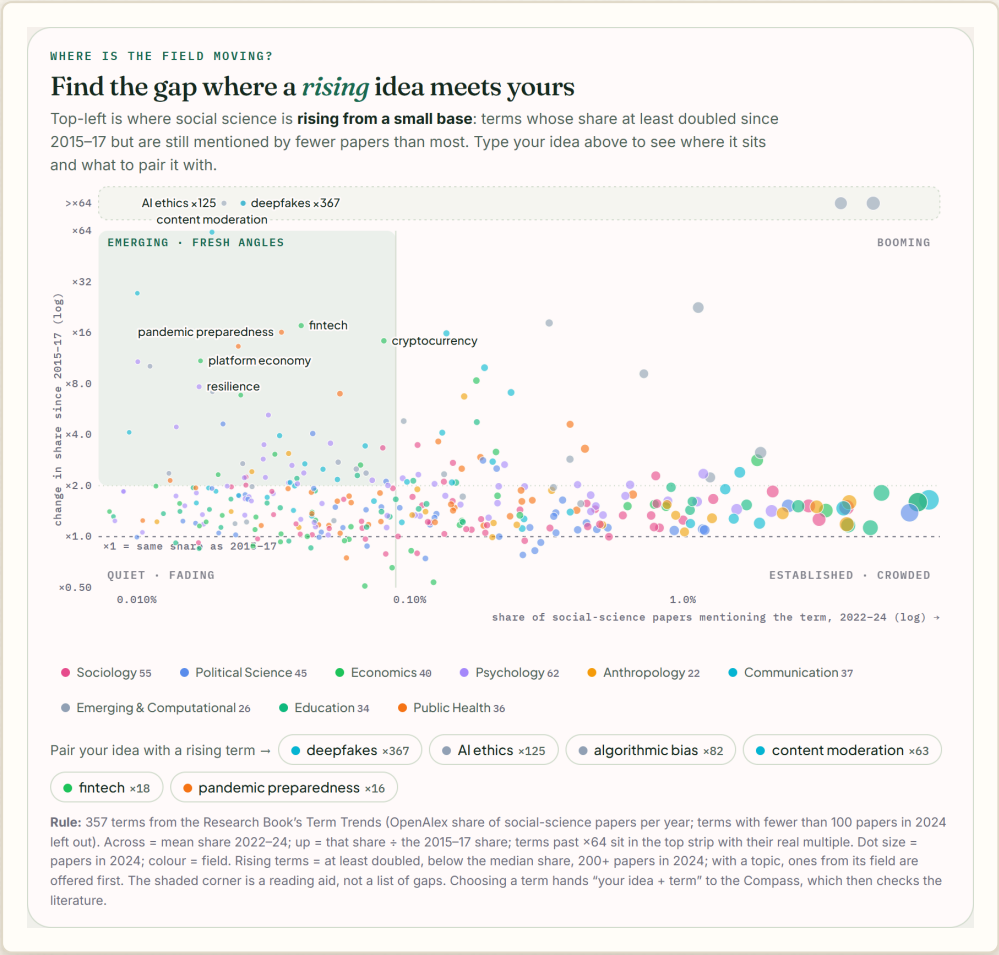
2.0.5	2026–10–18	Series back to 13 volumes (Throughline CS dropped: a separate product, not one of the Lazy Research Lad sites): covers and title pages now read 'of 13'. Text and figures unchanged.
2.0.4	2026–10–18	Series grows to 14 volumes (ScholarScope, Cadence, FallacyScope and Throughline CS added): "of 14" on the cover and title page; content unchanged.
2.0.3	2026–10–18	Series grows to ten volumes: Volume 10 (BookScope) added, so covers and title pages now read 'of 10'. Text and figures unchanged.
2.0.2	2026–10–18	Suite renamed: Throughline is now Lazy Research Lad (series, titles and text). Screenshots unchanged.
2.0.1	2026–10–17	Light cover edition: paper-cloth cover with the volume's accent spine and the live figure as a plate, captured in light theme 17 October 2026.
2.0.0	2026–10–16	Rewritten as a research guide continuing the Volume 5–6 study, on a simulated teaching dataset with a stated generating model: analysis plan, measurement model (reliability, AVE, one- vs two-factor CFA), the moderation test with simple slopes, reading effects honestly, reviewer objections, a model results paragraph. Tool reference moved to the last chapter. 7 new verified references.
1.0.0	2026–10–16	First edition. Figures captured 16 October 2026 from the live site, after the large-dataset persistence fix of 15 October.

Errata

No errata recorded for this version.



JOURNALTIME

Choose the journal, *then write for it*

JournalTime — how to pick a realistic target journal, shape the manuscript for it, and submit references you can stand behind.

Choose the journal, *then write for it*

A working guide to the last mile. The study from Volumes 2–7 now has a theory, measures, a positioning, an analysis and model paragraphs. Here it chooses where to send them — and learns why "reference formatting" is a place where a careful tool must sometimes refuse to help.

Site. https://syahmedu.github.io/journaltime/

Version. 2.2.4 (2026-10-18) · build `3702b3b+edits` · 2026-10-18T15:45:22Z

Figures. Real screenshots of the live site, captured 2026-10-18 by `scripts/capture.mjs`; sample data shown in figures is labelled simulated where it is simulated.

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Type. Fraunces, Plus Jakarta Sans and IBM Plex Mono (SIL Open Font License). Laid out with Paged.js.

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01

BEFORE YOU CHOOSE

Fit before speed

Most first submissions that fail are not rejected for weak science. They are sent back from the editor's desk because they were written for someone else's readers.

Choose the conversation first. The journal whose recent papers you cited most, whose readers would recognise your question, and whose methods sections look like yours is usually a better first target than the fastest or the most prestigious. Speed matters — a long first decision delays every later step — but it is a tie-breaker between journals that already fit.

A JOURNAL IS A REALISTIC TARGET WHEN…

- [ ] Its recent papers include work you cite, on the same conversation.
- [ ] Its readers would care about your setting and your outcome.
- [ ] It publishes your design and method — survey, two waves, moderation.
- [ ] Your manuscript is within its length and format limits.
- [ ] Its review time and open-access options suit your situation.

THE WORKED EXAMPLE — CONTINUED

The study sits between two conversations: **occupational health psychology / organisational behaviour** (JD-R, burnout, engagement) and **nursing** (the setting, the staff, the shifts). Both are honest homes; each would frame the paper differently. Two kinds of evidence help weigh them: where the conversation is moving, and how long each kind of journal takes.

02

THE MOMENTUM MAP

Where the conversation is moving

Type the study's idea into JournalTime and the momentum map places its terms among 357 social-science terms, by how common they are and how fast they have moved.

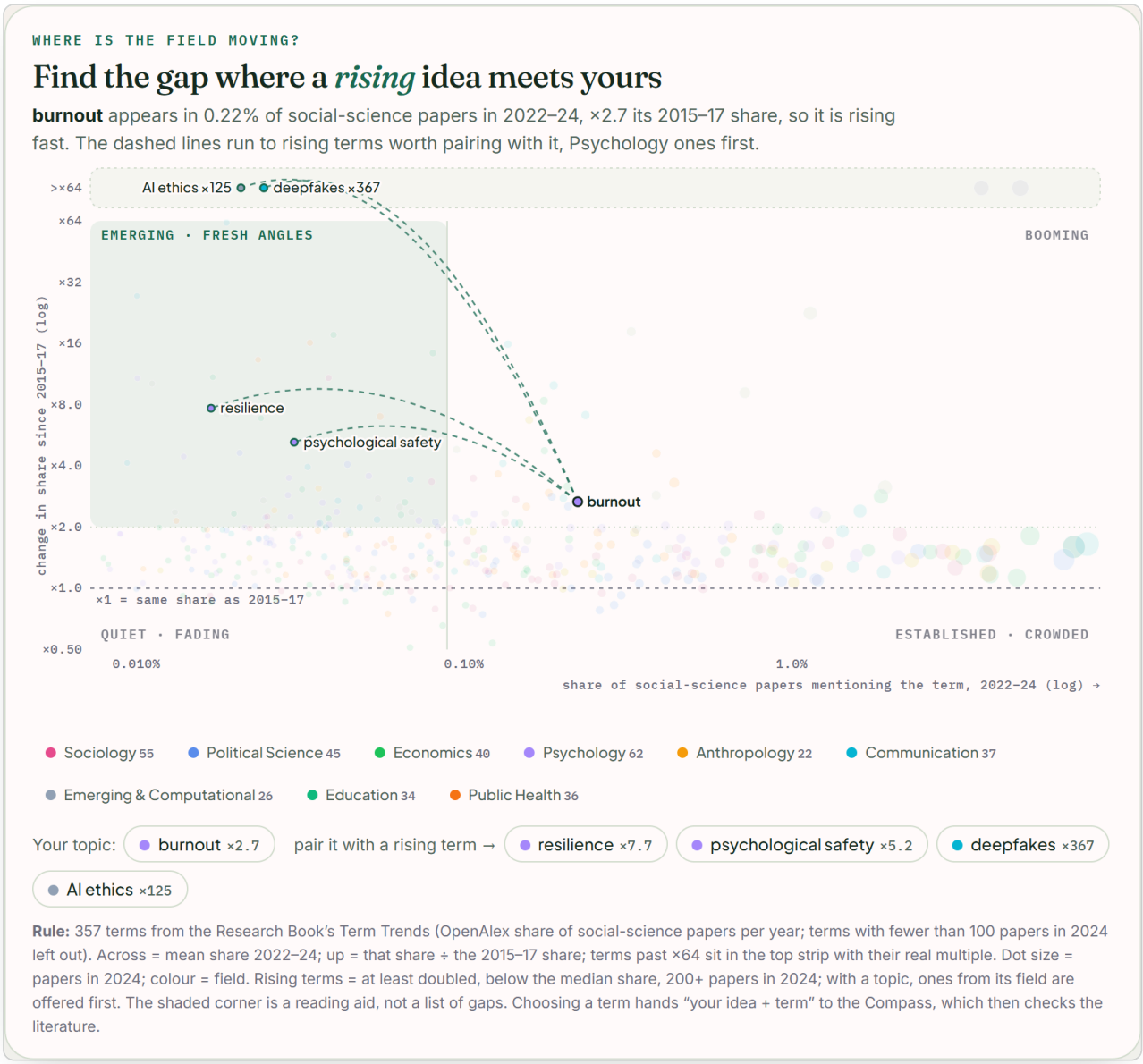

FIG 2.1 *burnout* in the idea box: the term appears in 0.22% of social-science papers in 2022–24, ×2.7 its 2015–17 share. The readout calls it rising fast; dashed lines run to rising terms to pair it with, Psychology's own first.

Read the position, not the colour. Burnout sits to the right of most terms, so it is already a large conversation, and well above the ×1 line, so its share has nearly tripled. A rising, crowded topic means editors see many burnout submissions. They will ask what this one adds, so the contribution has to be stated in the first paragraph rather than discovered in the discussion.

The dashed lines run from burnout to the rising terms the map suggests pairing it with. Rising terms from burnout's own field come first: *resilience* (×7.7) and *psychological safety* (×5.2), both Psychology. Then come the fastest risers anywhere, *deepfakes* (×367) and *AI ethics* (×125), which sit in the strip along the top because they have moved past ×64. Choosing one hands "your idea + term" to the Research Compass, which then checks the literature. The cross-field risers do not fit this study, and that is the right reading: a fresh angle is only fresh if it belongs to the question. The same-field pair is a lead to test, not a finding.

WHAT THE MAP COUNTS

The map counts the share of social-science papers that mention a term (OpenAlex, via the Research Book's Term Trends). It shows attention, not quality or acceptance odds, and it cannot see terms outside its list of 357; terms with fewer than 100 papers in 2024 are left out.

03

LISTED AND MEASURED

Read the speed figures honestly

Two kinds of number describe how fast a journal moves. One is what journals list; the other is measured from real articles. They answer different questions, and neither is an acceptance rate.

Listed: the first decision

The journal list shared by JournalTime and ScholarScope's Publish desk holds 1,805 Scopus-indexed journals, each with a listed time to first decision and the source of that figure.

LISTED FIRST DECISION	JOURNALS	RANGE	MEDIAN	PUBLISHER-STATED · ESTIMATED
Nursing	36	21–45 days	35 days	34 · 2
Organizational Behaviour	134	21–90 days	45 days	88 · 46

Nursing journals list faster first decisions than organisational-behaviour journals, and their figures are better sourced: 46 of the 134 organisational values are estimates, not publisher statements.

Measured: submission to publication

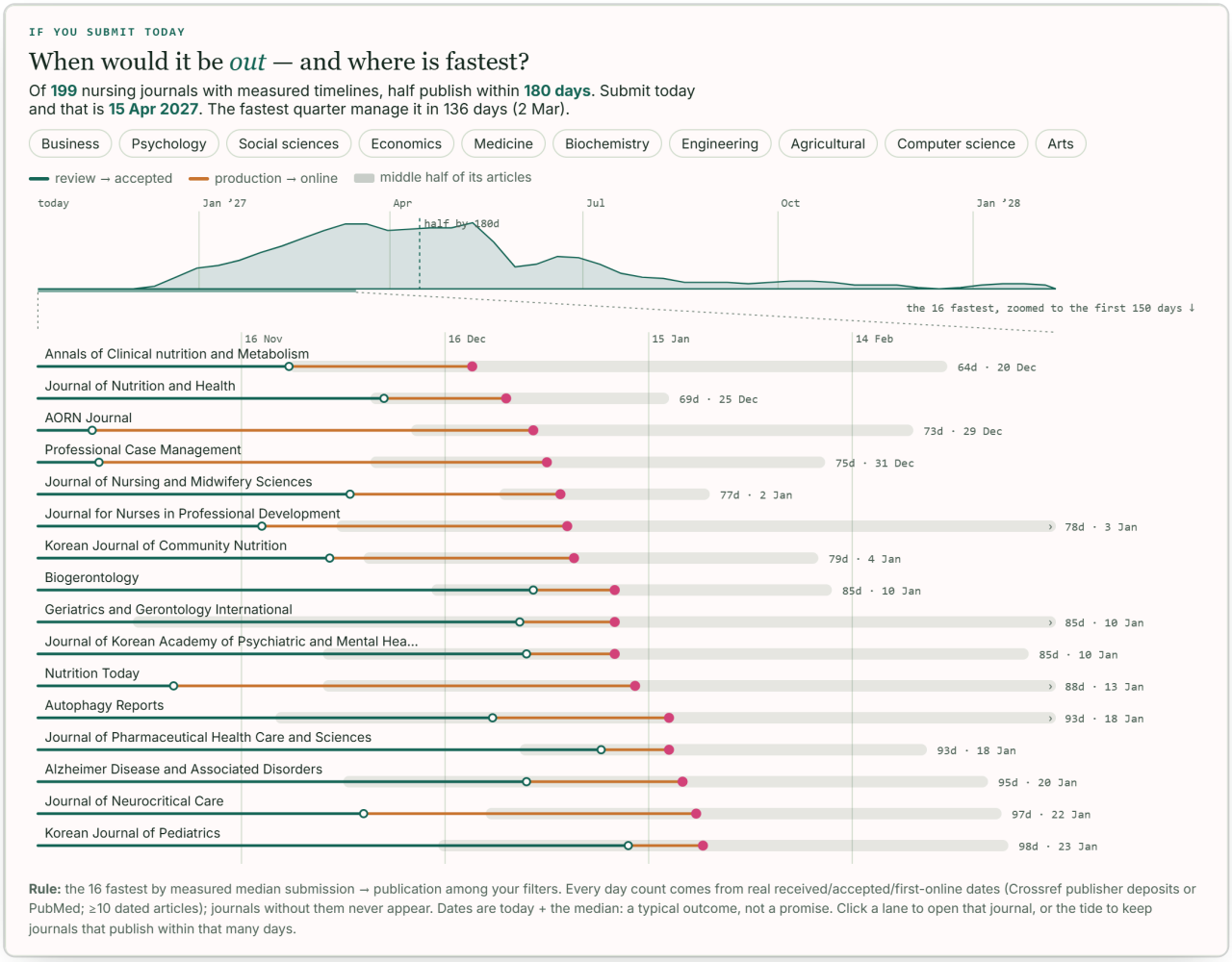

FIG 3.1 Journal Timelines, filtered to Nursing: of 199 nursing journals with measured timelines, half publish within 180 days of submission; the fastest quarter within 136. The lanes show the 16 fastest, each split into review and production.

MEASURED (JOURNAL TIMELINES)	JOURNALS MEASURED	HALF PUBLISH WITHIN	FASTEST QUARTER
Nursing	199	180 days	136 days
Psychology	372	238 days	183 days
Business, management and accounting	358	298 days	215 days

The measured times tell the same story at a different scale. A first decision is only the first step; the whole route to publication takes months. Nursing journals are faster on both counts.

Look at the fastest nursing lanes before trusting them. The two at the top, *Annals of Clinical Nutrition and Metabolism* and the *Journal of Nutrition and Health*, are nutrition journals that share the broad Nursing subject area. Speed was never the first test: they do not fit this study at all.

WHAT THE SPEED FIGURES CAN AND CANNOT TELL YOU

Listed figures are what journals state, often round numbers, and some are estimates; where a journal appeared twice in the catalogue with different turnarounds, its figure is marked estimated. Measured figures come from the dates publishers deposit with Crossref, so publishers that do not deposit them (many Elsevier, SAGE and APA titles) are missing rather than slow. The two numbers measure different things and should not be subtracted from each other. Check each journal's own site for current figures and its scope.

WORKED EXAMPLE

Choice: a nursing journal first. The setting, staff and outcome are central to nursing readers, nursing journals are faster on both listed and measured times, and the theory and measures travel with the paper. An organisational-behaviour journal remains the second target — and the introduction is drafted so that only its framing paragraph changes between the two.

04

JOURNAL STUDIO

Write for one journal

A paper written for "a journal" is written for none. Pick one and read three of its recent papers before you draft.

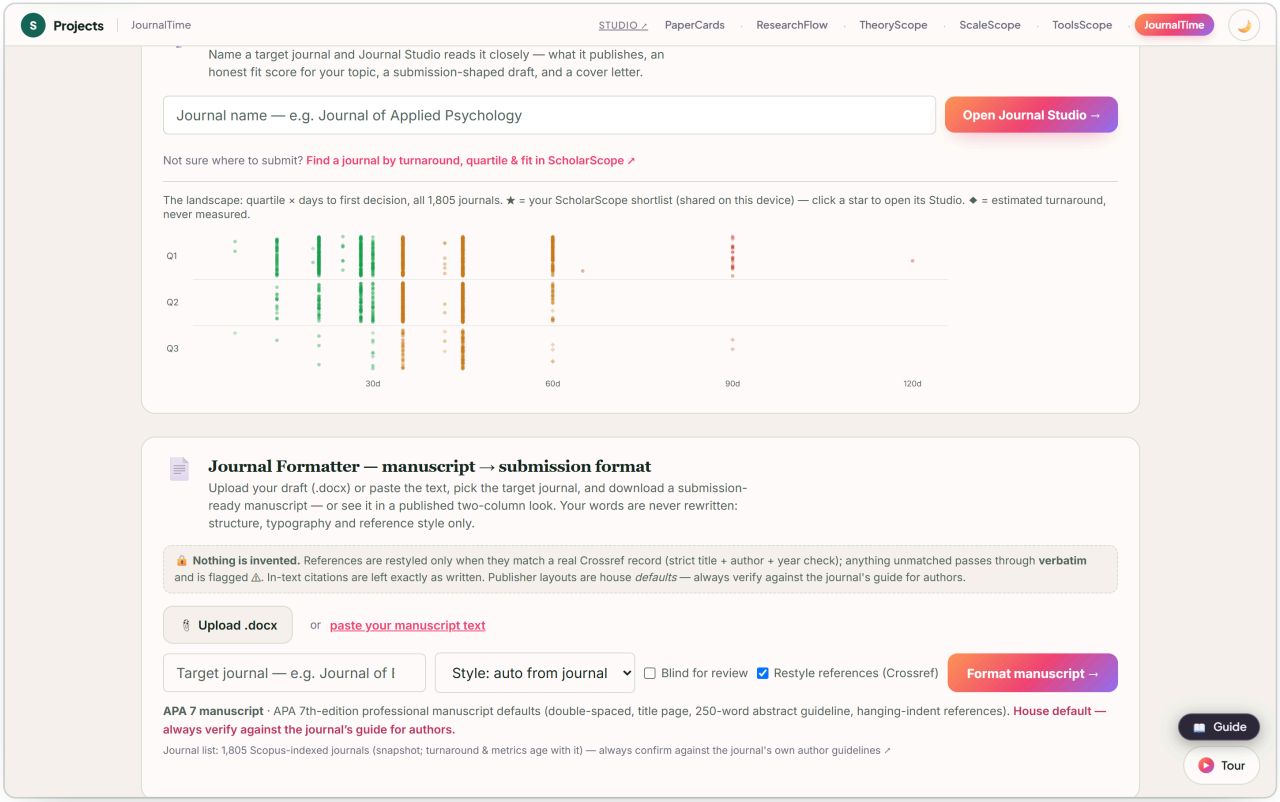

FIG 4.1 Journal Studio: choose the journal, give your topic, and work through its steps.

1. Read the journal's aims and scope, and three recent papers on related topics. Note their length, section headings and how much theory they carry.
2. Write the opening paragraph in that journal's language — for a nursing journal, the problem in practice before the theory; for an organisational journal, the theoretical puzzle first.

3. Keep the model paragraphs from Volumes 2–7 as building blocks: positioning (vol 2), evidence (vol 3), theory (vol 5), measures (vol 6), results (vol 7), design (vol 4).
4. Check the journal's rules on preregistration, data sharing and AI disclosure before you submit [1].

LIMITS

Journal Studio and the Article Developer draft text with AI. Treat every generated citation as unverified until you have opened it by its DOI — the same audit as Volume 4.

05

JOURNAL FORMATTER

Format without inventing

Formatting should change the look of your manuscript, never its content. The Formatter is built around that rule — and this chapter shows the rule doing its job.

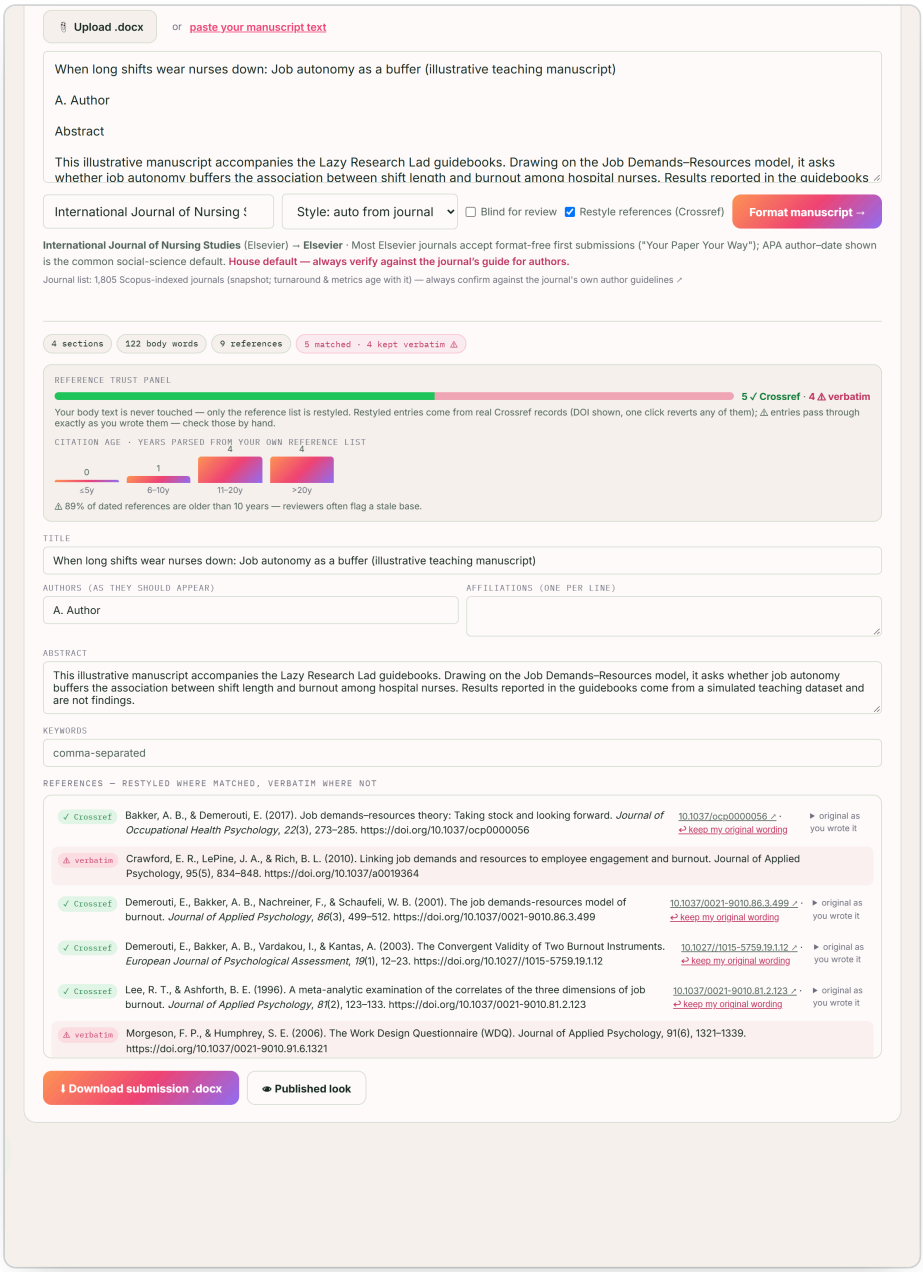

FIG 5.1 The teaching manuscript formatted for the *International Journal of Nursing Studies*: 4 sections, 9 references — **6 matched to Crossref and restyled, 3 kept verbatim (⚠)**. Body text untouched; publisher layout labelled a house default.

Read the reference trust panel before you download. A reference is restyled only when the Formatter can match it to a real Crossref record with confidence — first by the DOI written in the reference itself, otherwise by a strict title, author and year check. Anything it cannot match is left **exactly as you wrote it**, flagged for you to check by hand.

WHAT THE FLAGS MEANT

Three of the nine references stayed verbatim. Each had a **shortened title** in the manuscript — for example *The Work Design Questionnaire (WDQ)* rather than the full title of Morgeson and Humphrey's article [2]. The Formatter would not guess. The fix is the author's: write the full title, run it again.

An earlier version of the Formatter did guess: it replaced that reference with a different Crossref record — the questionnaire's dataset entry — despite the correct DOI in the reference. It now resolves by the reference's own DOI first and never substitutes another record. A tool that formats references must be allowed to say "I am not sure".

The panel also counts the age of your references. Here 89% of dated references are more than ten years old — a fair prompt to cite the recent literature too (the JD-R update [3], and the recent papers found in Volume 2).

06

THE LAST CHECK

Before you press submit

Editors decide fast. Make the first page and the cover letter answer their two questions: does this fit, and is it careful?

THE SUBMISSION CHECKLIST

- [ ] Title and abstract name the population, design and main finding — no hype.
- [ ] Introduction ends on the research question; positioning claims show how they were searched.
- [ ] Methods report design timing, sources, measures with sample reliabilities, and the preregistered plan.
- [ ] Results give estimates with intervals, not only *p* [4,5].
- [ ] Every reference was opened by its DOI; flagged references fixed or deliberately kept.
- [ ] Data, code and materials statements follow the journal's policy.
- [ ] AI assistance is disclosed as the journal requires.

07

AT THE EDITOR'S DESK

Defend it

The questions an editor asks before sending a paper to review.

REVIEWER	YOUR ANSWER
"Why our journal?"	Name the conversation: the recent papers in the journal your study extends, and why its readers need the result.
"This is a management paper in a nursing journal."	Lead with the practice problem — burnout and staffing — and show what nursing managers can do with the finding; keep the theory, but in service of the setting.
"Your references are dated."	Add the recent work found in the Research Book's recent tier and the JD-R updates [6,3], and say what has changed.
"Was this written with AI?"	Disclose what was drafted and how every claim, citation and number was then checked against its source.

08

ONE PAGE

Write the cover letter

A cover letter is three paragraphs: what you found, why this journal's readers need it, and the formal statements.

MODEL PARAGRAPH

We submit an original article testing whether job autonomy buffers the association between shift length and burnout among hospital nurses. Using shift length from ward rosters and a two-wave survey, the study tests a prediction that is distinctive to the Job Demands–Resources model and speaks directly to how nurse managers design work around long shifts.

The manuscript builds on recent work in the journal on nurse burnout and staffing, and extends it by examining a resource that rosters themselves may constrain.

The manuscript is not under consideration elsewhere. The analysis plan was preregistered; data and analysis code are available as described in the manuscript. AI tools were used to draft parts of the text; all content, citations and numbers were checked by the authors.

Model letter for the illustrative study. It describes a design and contribution, not results; replace the journal-specific sentence with the real papers you build on.

Why it looks like this

The momentum map gives its two questions the two position channels [7]: across, how large a term already is (its share of papers in 2022–24); up, how fast it has moved (that share against 2015–17). Both axes are logarithmic, because a term rising from 0.01% to 0.02% has doubled just as surely as one rising from 1% to 2%. The four labelled corners are a reading aid, not a classification.

The crossing in Journal Timelines draws measured times on real calendar dates from today, so a median of 180 days reads as a month you can plan around. Review and production are separate colours along one thread; the middle half of each journal's articles is a band, so a single fast median is not mistaken for a promise [8].

09

REFERENCE

JournalTime at a glance

The four surfaces and the momentum map.

SURFACE	USE IT TO…
🧭 **Research Compass**	Map a topic's research space and gaps with AI — leads to check, not findings.
✍️ **Article Developer**	Generate and edit a full draft, section by section; the draft analytics strip reports readability, sentence length, passive voice and section balance on-device.
📝 **Journal Studio**	Write for one chosen journal, step by step.
📄 **Journal Formatter**	Turn a .docx or pasted text into a submission .docx or a two-column preview; deterministic, no AI; references restyled only on a confident Crossref match.

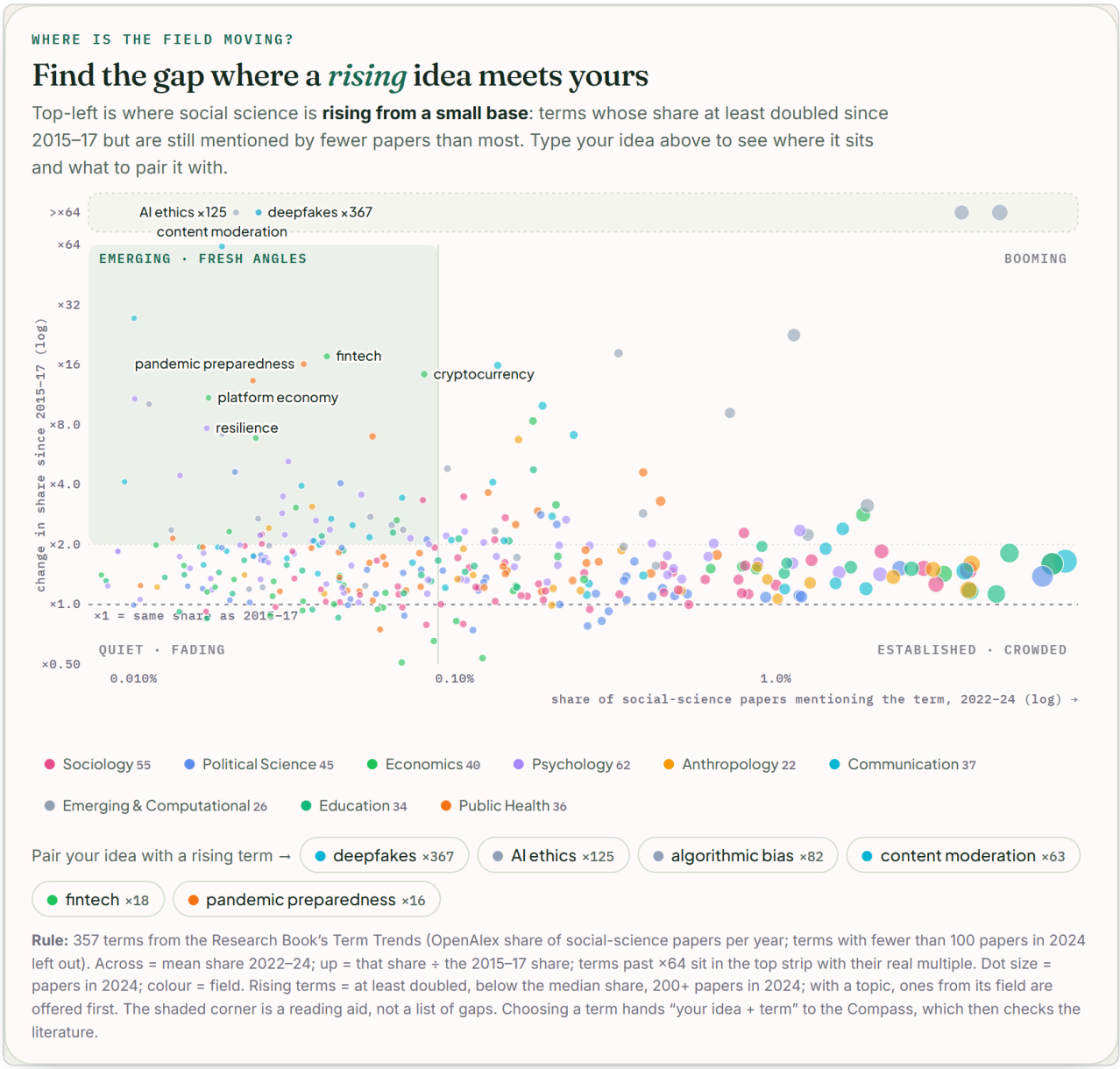

FIG 9.1 The momentum map with no idea typed: 357 terms by share of social-science papers in 2022–24 (across) and change since 2015–17 (up). The shaded top-left corner holds terms that at least doubled from a small base; terms past ×64 sit in the strip along the top with their real multiple, and the key below names each field's colour.

WHAT YOU SEE	WHAT IT MEANS
Across (log)	Mean share of social-science papers mentioning the term, 2022–24.
Up (log)	That share divided by the 2015–17 share; the ×1 line means no change.
Corners	Emerging (shaded) · booming · established, crowded · quiet, fading — reading aids, not verdicts.
Dot size and colour	Papers in 2024; the term's field.
Your idea	Terms in the idea box light up; the chips pair it with rising terms and hand the pair to the Research Compass.

HONEST DATA

The journal list holds 1,805 Scopus-indexed journals with listed turnaround and metrics, shared with ScholarScope's Publish desk. Figures age; confirm them on each journal's own site.

Glossary

First decision

The time from submission to the editor's first decision, as the catalogue lists it for a journal. Listed, not measured.

Measured time

Days from submission to online publication, computed from the dates publishers deposit with Crossref for real articles. Available only for publishers that deposit those dates.

Momentum

How a term's share of social-science papers in 2022–24 compares with its share in 2015–17 (×2 = doubled).

Desk rejection

A rejection by the editor before peer review — most often for poor fit with the journal's scope or audience.

Fit

Whether the journal's readers would recognise your question as part of their conversation. The first thing an editor judges.

Restyled reference

A reference the Formatter matched to a real Crossref record and rewrote in the journal's style. Unmatched references stay exactly as written, flagged ⚠.

House default

The layout and reference style the Formatter applies for a publisher family. A default to check against the journal's own guide for authors.

References

Every reference was resolved by its DOI against Crossref (or DataCite) and matched on first author and year before it could be cited — 8 sources in this volume. Verification date per entry is kept in `references/verified.json`.

1 Nosek, B. A., Ebersole, C. R., DeHaven, A. C., & Mellor, D. T. (2018). The preregistration revolution. Proceedings of the National Academy of Sciences, *115*(11), 2600–2606. https://doi.org/10.1073/pnas.1708274114

2 Morgeson, F. P., & Humphrey, S. E. (2006). The Work Design Questionnaire (WDQ): Developing and validating a comprehensive measure for assessing job design and the nature of work.. Journal of Applied Psychology, *91*(6), 1321–1339. https://doi.org/10.1037/0021-9010.91.6.1321

3 Demerouti, E., & Bakker, A. B. (2023). Job demands-resources theory in times of crises: New propositions. Organizational Psychology Review, *13*(3), 209–236. https://doi.org/10.1177/20413866221135022

4 Wasserstein, R. L., & Lazar, N. A. (2016). The ASA Statement on p -Values: Context, Process, and Purpose. The American Statistician, *70*(2), 129–133. https://doi.org/10.1080/00031305.2016.1154108

5 Cumming, G. (2014). The New Statistics. Psychological Science, *25*(1), 7–29. https://doi.org/10.1177/0956797613504966

6 Bakker, A. B., & Demerouti, E. (2017). Job demands–resources theory: Taking stock and looking forward.. Journal of Occupational Health Psychology, *22*(3), 273–285. https://doi.org/10.1037/ocp0000056

7 Cleveland, W. S., & McGill, R. (1984). Graphical Perception: Theory, Experimentation, and Application to the Development of Graphical Methods. Journal of the American Statistical Association, *79*(387), 531–554. https://doi.org/10.1080/01621459.1984.10478080

8 Munzner, T. (2014). Visualization Analysis and Design. A K Peters/CRC Press. https://doi.org/10.1201/b17511

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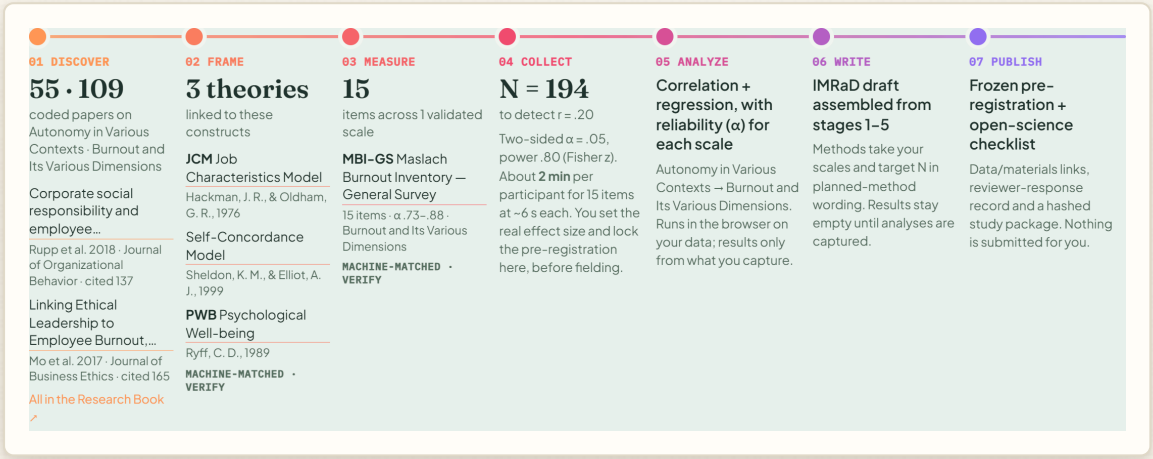
2.2.0	2026–10–18	Momentum map figures re-shot after the live map was improved: terms past ×64 now sit in a labelled strip with their real multiple, a field colour key, and dashed links from your idea to suggested rising terms (same field first). Chapter 2 reading updated: burnout now pairs first with resilience and psychological safety.
2.1.0	2026–10–17	Reeds retired from the live site: Chapter 2 is now the momentum map (where the conversation is moving), Chapter 3 reads listed first-decision and measured submission-to-publication times (Journal Timelines) side by side; Organizational Behaviour counts corrected to the current catalogue (134 journals, 88 publisher-stated, 46 estimated); reference chapter and design notes rewritten. Figures recaptured 17 October 2026.
2.0.2	2026–10–17	Light cover edition: paper-cloth cover with the volume's accent spine and the live figure as a plate, captured in light theme 17 October 2026.
2.0.1	2026–10–17	Journal counts updated after the catalogue de-duplication (1,959 → 1,805 journals): Nursing 36, Organizational Behaviour 140; figures recaptured.
2.0.0	2026–10–17	Rewritten as a research guide continuing the worked study: choosing a journal by fit before speed, reading listed first-decision times honestly, writing for one journal, the manuscript checklist, the Formatter's reference trust panel (with the DOI-first fix of 16–17 October), reviewer-desk objections and a model cover-letter paragraph. Tool reference moved to the last chapter.
1.0.0	2026–10–16	First edition. Figures captured 16 October 2026 from the live site.

Errata

VERSION	WHERE	CORRECTION
2.2.0	Cover and the no-idea momentum-map figure: captured during a rendering fault that drew the chart at phone scale (oversized labels, fastest risers clipped at the top edge)	Momentum map figures re-shot after the live map was improved: terms past ×64 now sit in a labelled strip with their real multiple, a field colour key, and dashed links from your idea to suggested rising terms (same field first). Chapter 2 reading updated: burnout now pairs first with resilience and psychological safety.

2.1.0	Ch 2 (reeds) and Organizational Behaviour counts (140/90/49 → 134/88/46)	Reeds retired from the live site: Chapter 2 is now the momentum map (where the conversation is moving), Chapter 3 reads listed first-decision and measured submission-to-publication times (Journal Timelines) side by side; Organizational Behaviour counts corrected to the current catalogue (134 journals, 88 publisher-stated, 46 estimated); reference chapter and design notes rewritten. Figures recaptured 17 October 2026.



LAZY RESEARCH LAD STUDIO

One study, *one honest record*

Lazy Research Lad Studio — how to carry a study from first source to submission without losing the thread, and leave a record others can check.

One study, *one honest record*

The worked study has passed through eight volumes and eight tools. This one puts it in a single place: seven checkpoints in order, each with requirements you confirm yourself, a preregistration that locks before data arrive, and a package that shows exactly what was done.

Site. https://throughline-studio.vercel.app/

Version. 2.1.4 (2026–10–18) · build `3702b3b+edits` · 2026–10–18T15:45:22Z

Figures. Real screenshots of the live site, captured 2026–10–18 by `scripts/capture.mjs`; sample data shown in figures is labelled simulated where it is simulated.

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Type. Fraunces, Plus Jakarta Sans and IBM Plex Mono (SIL Open Font License). Laid out with Paged.js.

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02 Start the study 5

03 Checkpoints in order 8

04 Lock the plan 10

05 Hand in an honest package 11

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07 Write the transparency statement 14

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01

BEFORE YOU START

Why a study needs one record

Most of the problems that sink empirical papers are not single mistakes. They are drift: a hypothesis quietly reworded after the data came in, a measure swapped, an analysis chosen because it worked.

Flexibility after seeing the data is the engine of false positives [1]. The defence is a record that fixes decisions in order and makes later changes visible. Preregistration does this for hypotheses and analyses [2]; a single study record does it for everything else — which sources framed the question, which measures were chosen and why, what the plan said before the data existed.

A STUDY RECORD EARNS ITS KEEP WHEN…

- [ ] Decisions are made in order, and each is recorded where the next one can see it.
- [ ] The plan is fixed before data collection, with a timestamp.
- [ ] Changes after that point are visible, with reasons.
- [ ] Everything a reader needs to check the work travels together.

THE WORKED EXAMPLE — CLOSING

Over Volumes 2–8 the worked study made its decisions across eight tools: a lens (TheoryScope), measures (ScaleScope), a positioning (Research Book), evidence (PaperCards), a design (ResearchFlow), an analysis (ToolsScope) and a journal (JournalTime). Studio is where those decisions become one study.

02

FROM TOPIC TO WORKSPACE

Start the study

A study starts from a question — nothing else. Studio never invents evidence or results to fill a new study.

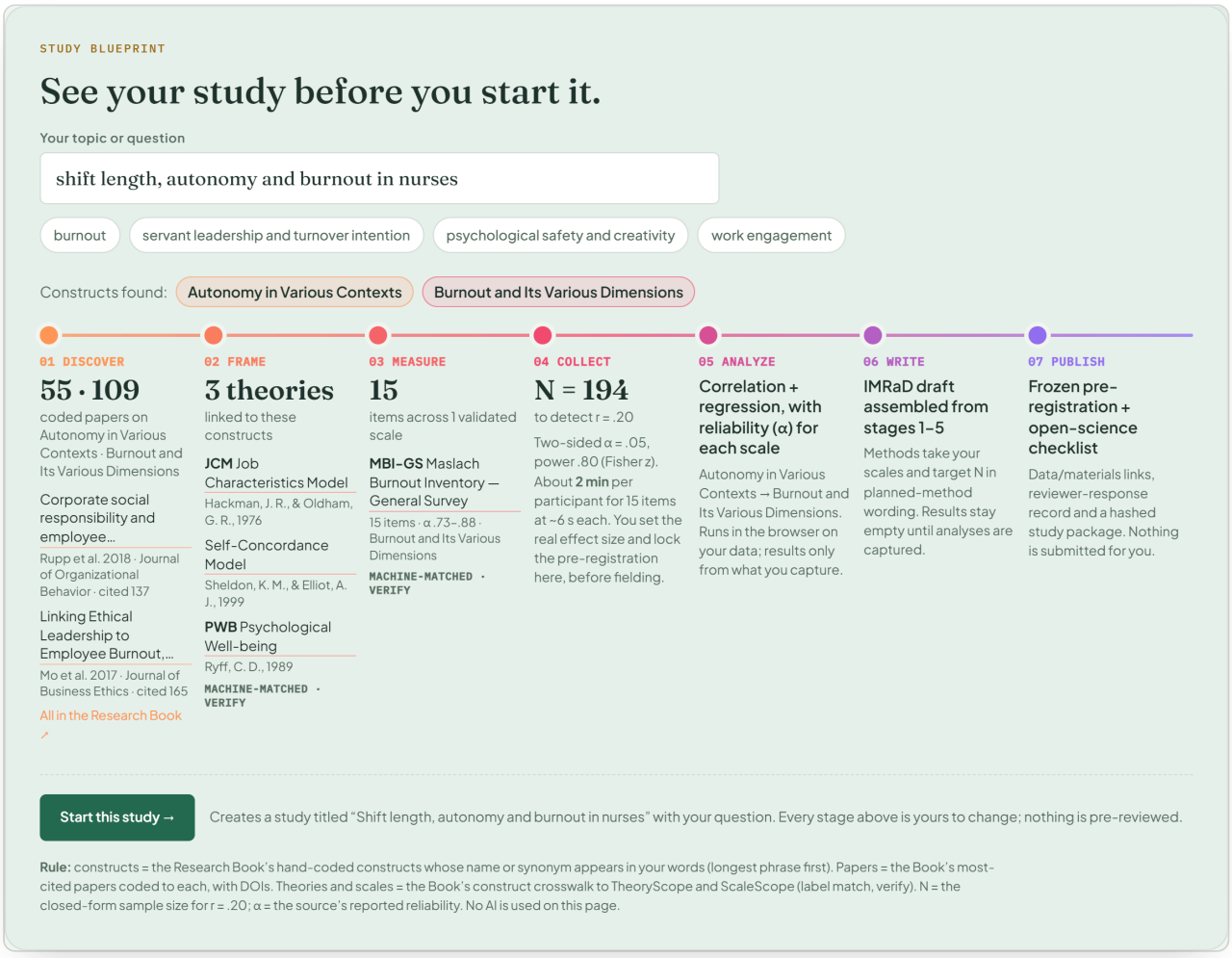


FIG 2.1 The study blueprint on the home, with the worked study's topic typed in. It finds two Research Book constructs (Autonomy, 55 coded papers; Burnout, 109), the theories and scale the crosswalk links to them, and a planning sample of N = 194 to detect r = .20.

Before a study exists, the home shows its **blueprint**: type a topic or question and each of the seven checkpoints shows the real material Studio would hand you there. That means the Research Book's most-cited papers on each construct, the theories and validated scales linked to them, a sample size from a power calculation, the analysis the shape implies, and what Write and Publish will assemble. No AI is used; the rule is printed under it.

THE WORKED EXAMPLE

For *shift length, autonomy and burnout in nurses*, the blueprint and the series disagree in useful ways:

THE BLUEPRINT OFFERS	THE STUDY DECIDED	WHY THEY DIFFER
Theories: Job Characteristics Model, Self-Concordance Model, Psychological Well-being	JD-R as the lens (Vol 5)	The crosswalk links theories to the constructs named. JD-R hangs on the Job Demands and Resources construct, which these words do not name.
Scale: MBI-GS for burnout	OLBI (Vol 6)	The blueprint lists what the library links; the choice between instruments needed the definition and the evidence table.
Constructs: Autonomy, Burnout	Plus shift length and the nursing setting	Shift length comes from rosters and the setting is not a construct, so neither is in the Book's 167.

The blueprint is a starting map drawn from the libraries. The decisions are the author's, and the volumes show how each was made.

Pressing **Start this study** → creates the study with your words as its title and question, exactly as the hub's Quick Start does. Nothing is filled in or reviewed on your behalf.

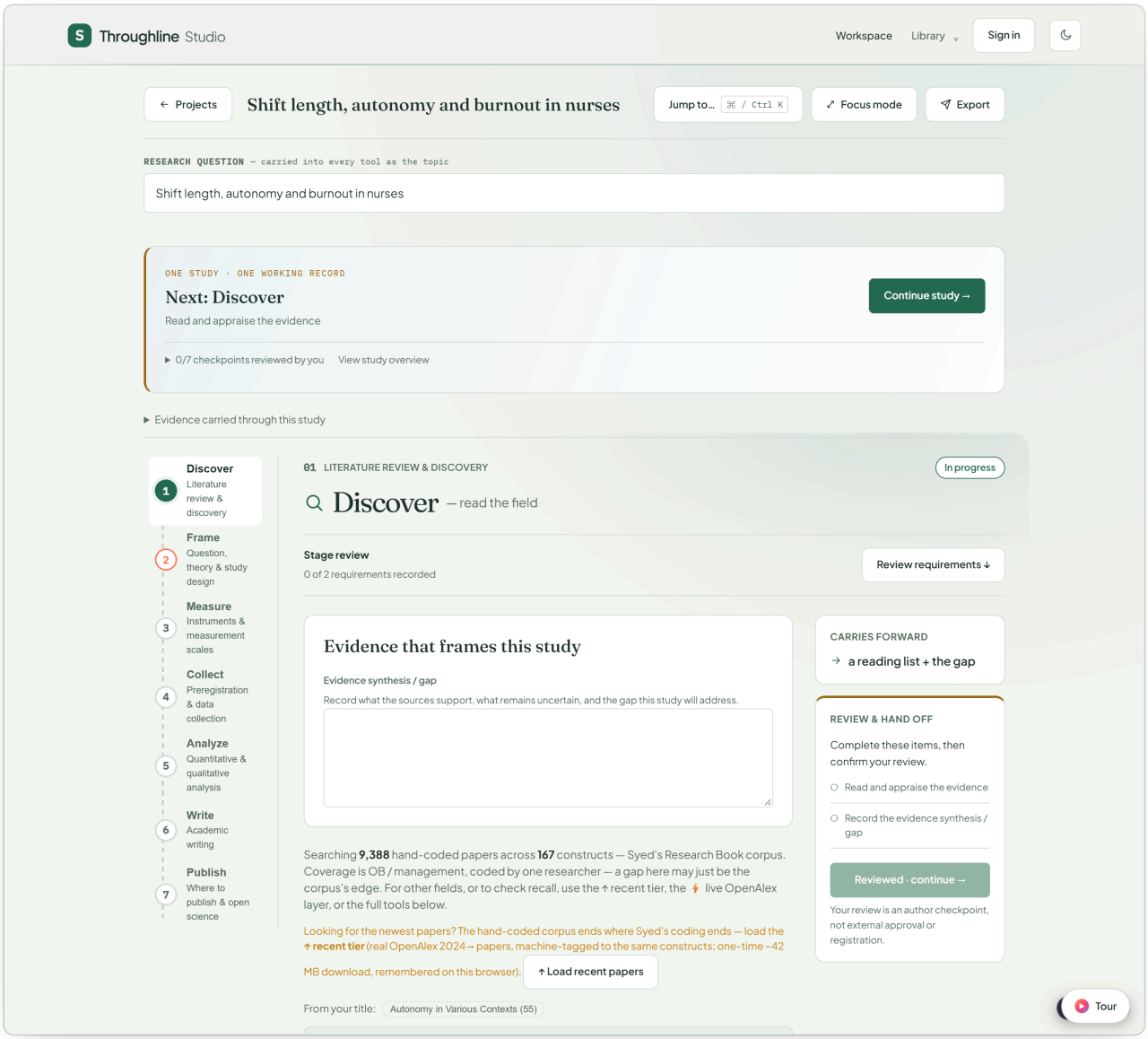


FIG 2.2 The study created from its topic: the research question carried into every tool, the next checkpoint (**Discover — read and appraise the evidence**), 0 of 7 checkpoints reviewed, and the seven-stage rail. Created live, 17 October 2026.

The hub's Quick Start, or any link carrying `?topic=`, creates the study directly; on the home, the blueprint's **Start this study** or the **New research project** button (title and field) does the same. Each stage opens with what it **carries forward** to the next — Discover carries a reading list and the gap; Frame carries a question, a lens and a design — so the order of work is visible from the start.

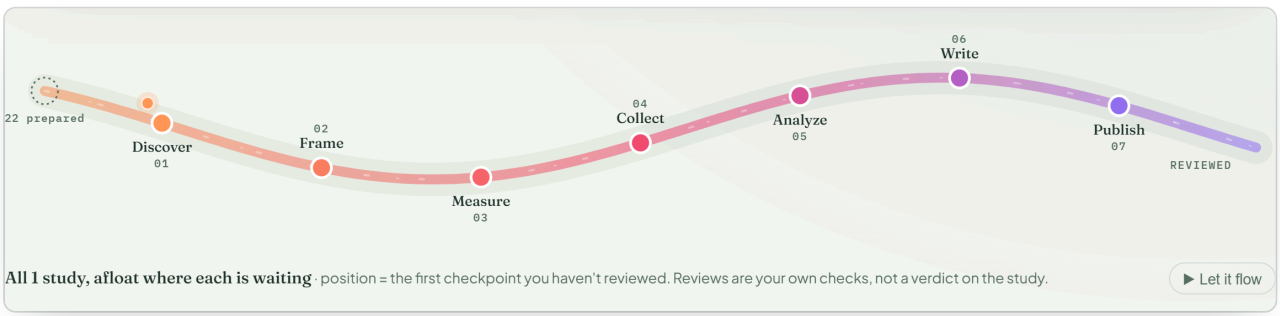


FIG 2.3 Back on the home, the river: seven checkpoints from the spring (22 prepared working papers) to the estuary. It appears once a study exists; the new study floats at Discover, the first checkpoint not yet reviewed.

03

DISCOVER → PUBLISH

Checkpoints in order

Each checkpoint has requirements you record, and a review you confirm. A later checkpoint asks you to review the earlier one first.

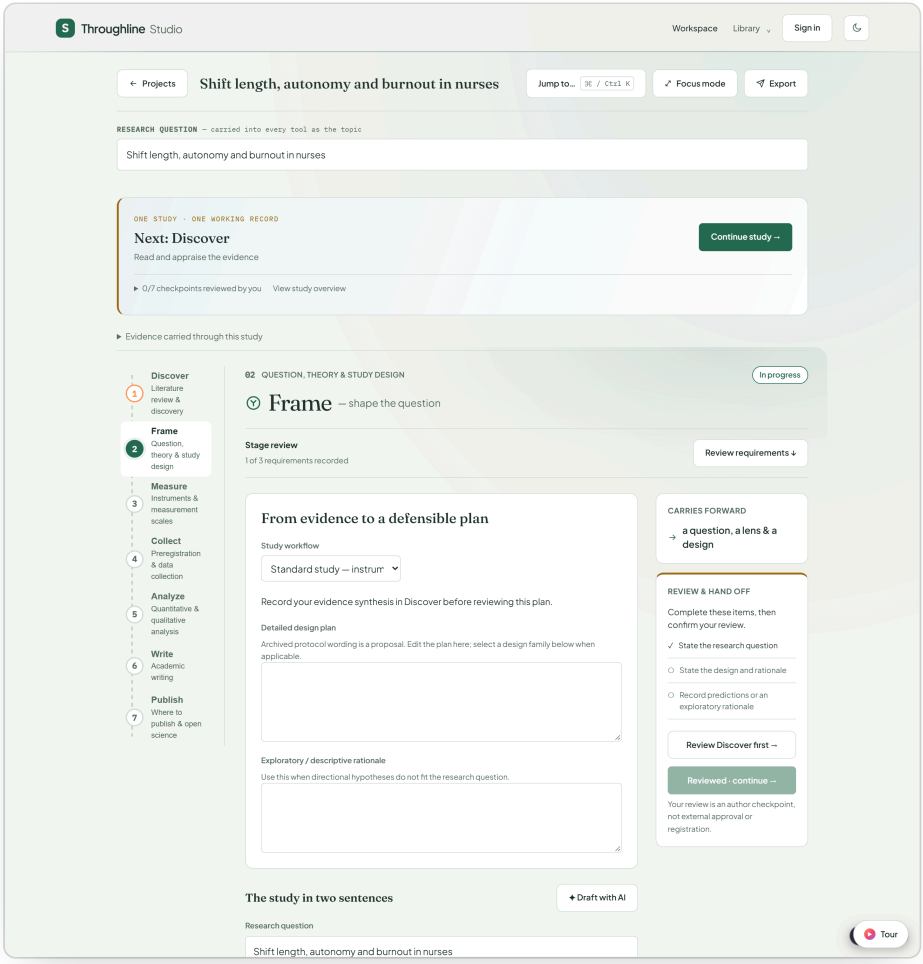


FIG 3.1 Frame — *shape the question*: 1 of 3 requirements recorded (the research question). The design plan and predictions are still to come, and the review panel asks to **review Discover first**.

CHECKPOINT	IN THE WORKED STUDY	GUIDE

Discover	Reading list, the positioning and the evidence	Vols 2–3
Frame	Question, JD-R as lens, two-wave design, predictions	Vols 4–5
Measure	OLBI, UWES-9, WDQ facets, roster shift length	Vol 6
Collect	Preregistration locked; data collected	—
Analyze	Measurement model, the moderation test	Vol 7
Write	The manuscript from the model paragraphs	Vols 2–8
Publish	Target journal, submission, revisions, open materials	Vol 8

The ordering is the point. Frame cannot be confirmed before Discover, because a question framed before reading is a question the literature may already have answered. Analyze waits on Collect, because the plan must exist before the data do.

> **WHAT A REVIEW IS**
>
> A review records that **you** checked the requirements. It is not peer review, ethics approval or a quality score, and Studio says so wherever a review appears.

04

COLLECT

Lock the plan

One click separates an exploratory study from a confirmatory one: fixing the plan before the data arrive.

At **Collect**, Studio assembles the preregistration from what earlier checkpoints recorded — hypotheses from Frame, measures from Measure, the analysis plan — and **locks it with a timestamp** before data collection. From then on it is read-only; Publish shows it alongside the manuscript [2].

WORKED EXAMPLE

For the worked study, the lock fixes three things a reviewer would otherwise doubt: that H3 (the buffering interaction) was the primary test, that shift length was always meant to come from rosters, and that burnout and engagement were always to be tested as separate factors. Volume 7's results paragraph is credible because this lock happened first.

TIP

A locked plan can still be departed from — studies meet reality. The point is that departures are visible and explained, not silent [1].

05

PUBLISH

Hand in an honest package

At the end, the record becomes the evidence that the study was done as described.

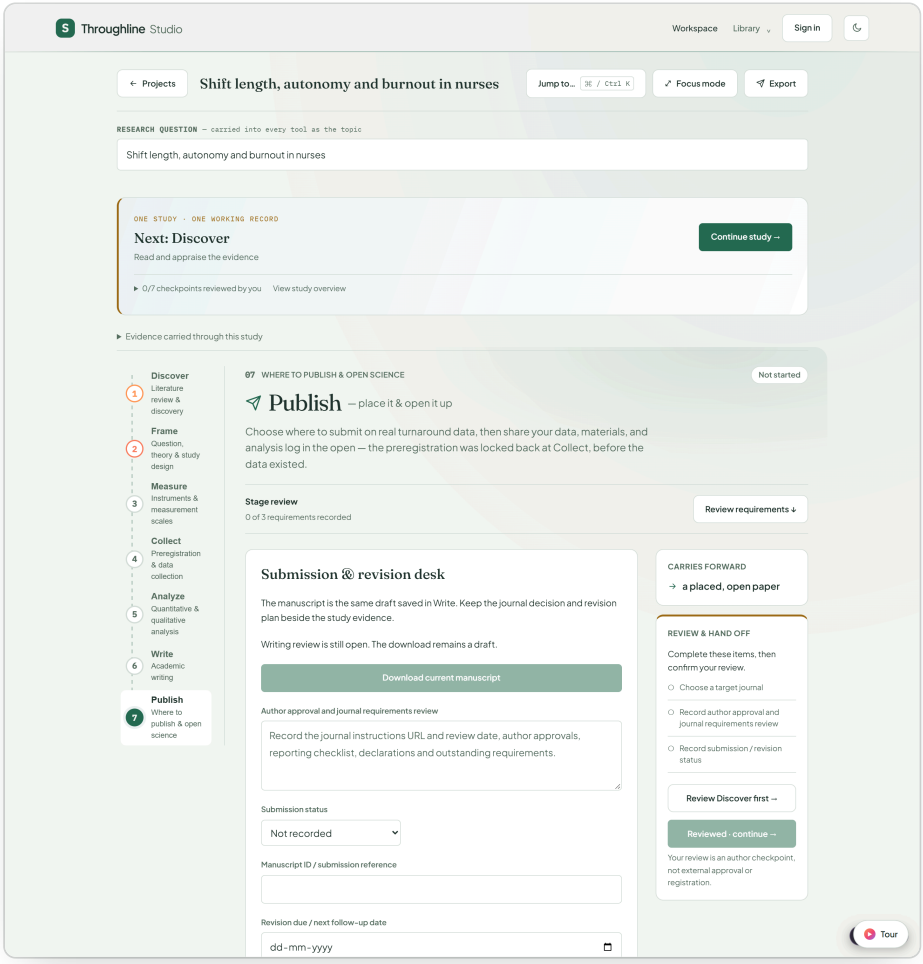


FIG 5.1 Publish — *place it & open it up*: the submission and revision desk keeps the manuscript, the journal requirements review, submission status and revision dates together. The preregistration, locked at Collect, is shown read-only.

- Edits save locally as you type; signed in, studies sync to your account across devices.

- `Export` downloads the study as JSON; `Import backup` restores it as a separate, labelled copy — never overwriting a newer study.
- A reviewer-response record keeps each comment, your response and where the manuscript changed.
- The **study package** ZIP holds the project, manuscript, method scaffold, reading list, analysis record, checklist and responses, with a SHA-256 manifest so a reader can tell nothing was altered — in the spirit of findable, accessible, interoperable and reusable outputs [3].

> **BEFORE YOU SHARE**
> The study package can contain private data and transcripts. Inspect it before sharing. Studio never submits to a journal for you.

06

QUESTIONS ABOUT THE PROCESS

Defend it

Increasingly, reviewers and editors ask how a study was run, not only what it found.

REVIEWER	YOUR ANSWER
"Were the hypotheses written after the data?"	Point to the preregistration locked at Collect, with its timestamp, and to the same hypotheses in the manuscript [2].
REVIEWER *"Why this analysis and not another?"*	YOUR ANSWER It was the planned test; alternatives are reported as exploratory [1].
REVIEWER *"Can we see the materials?"*	YOUR ANSWER Share the study package — inspected for private data — with its file manifest [3].
REVIEWER *"What did the AI tools do?"*	YOUR ANSWER List where drafts were generated and how each claim, citation and number was then checked; Studio's record shows the reviews.

07

OPEN SCIENCE

Write the transparency statement

Journals now ask for a short statement of what was planned, shared and assisted.

MODEL PARAGRAPH

The hypotheses, measures and analysis plan were preregistered before data collection; the timestamped plan is available with the study materials. Deviations from the plan are reported in the manuscript.

Shift length was obtained from ward rosters. Survey materials, the analysis code and a de-identified dataset are available as described in the data availability statement, with a file manifest for verification.

AI tools were used to draft parts of the proposal and manuscript; the authors checked every claim, citation and number against its source.

Model statement for the illustrative study. It describes intended practice; adapt it to what your study actually preregistered and shared, and to the journal's wording.

BEFORE YOU SUBMIT THE STATEMENT

- [ ] The preregistration is cited with its date.
- [ ] Deviations are listed, with reasons.
- [ ] Data and materials access is stated, including any restrictions.
- [ ] AI assistance is disclosed.

08

REFERENCE

Studio at a glance

The home, the blueprint, the Kitchen and the shelf.

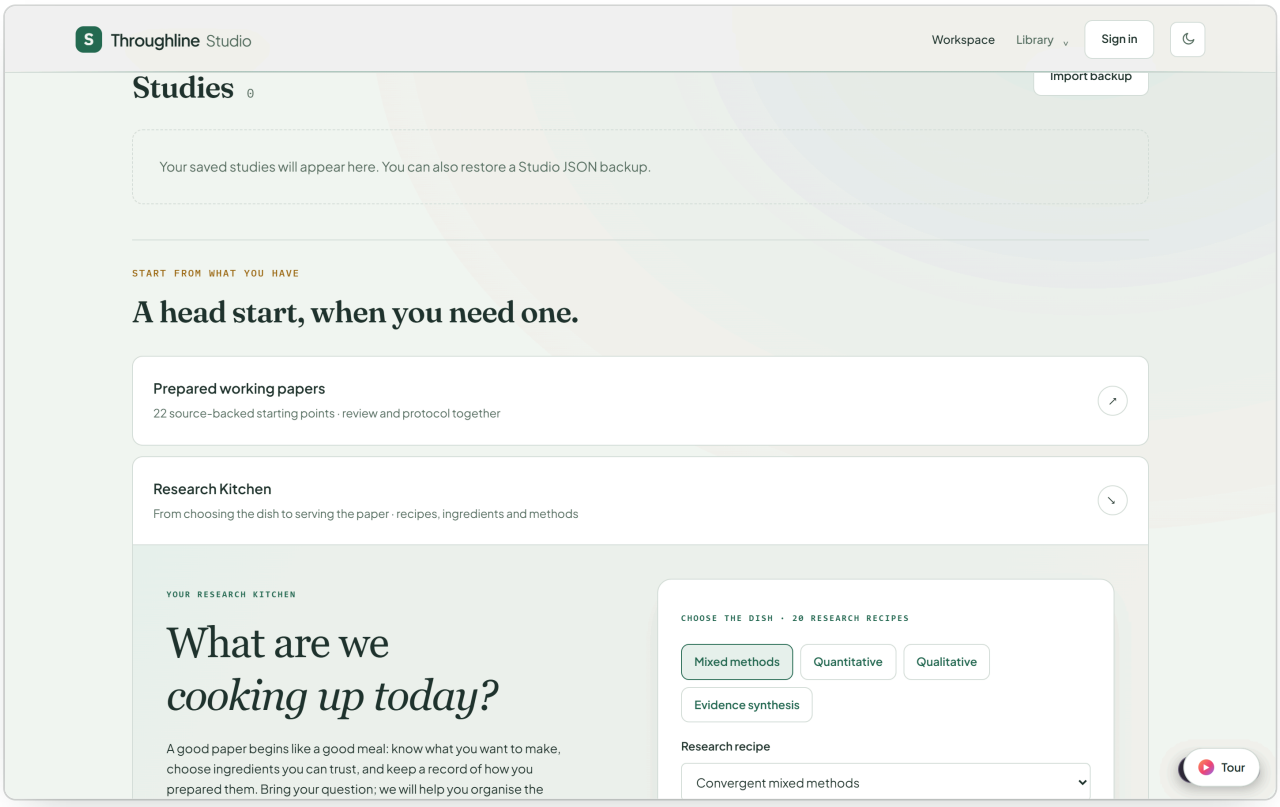


FIG 8.1 Research Kitchen: "What are we cooking up today?" — choose a dish (mixed methods, quantitative, qualitative, evidence synthesis) and a recipe.

- **19 recipes:** 12 executable quantitative workflows, 3 qualitative approaches, 3 mixed-methods designs and 1 evidence-screening workflow. Choosing a recipe seeds only the analysis plan.
- Quantitative recipes run on the open-source R engines also in ToolsScope's Research Lab [4,5,6,7]; practice data are labelled simulated.
- **Prepared working papers:** 22 source-backed starting points, each with its review and protocol.

- **Focus mode** hides the overview and rail to widen the working area; `Jump to…` (Ctrl K) moves between stages.
- **The home:** the study blueprint (topic → seven checkpoints from the real libraries, *Start this study*), the shelf of saved studies with search and filters, and, once a study exists, the river showing where each one waits.
- From the home: the knowledge graph, 20 worked examples of published, DOI-verified papers walked A→Z (journeys marked *illustrative*), and the tour.

Why it looks like this

The trail encodes an *ordinal* sequence — first checkpoint to last — so its stations are placed in order along one path and coloured with Studio's stage ramp, an ordered progression rather than a set of unrelated hues [8].

A study's position is the only data on the river, and it is deliberately coarse: which checkpoint it waits on. Anything finer would invite reading quality into what is only a record of your own reviews. The river appears once a study exists; before that it would be decoration.

The study blueprint uses the same seven stations and colours as the river, so a first-time visitor learns the order of the work before starting it. Each station shows one kind of real record (papers, theories, scales, a sample size), and the rule under the blueprint says exactly how each was chosen.

Glossary

Study

One research project in Studio: its question, evidence, plan, data, analysis and manuscript.

Checkpoint

One of seven stages — Discover, Frame, Measure, Collect, Analyze, Write, Publish — each with recorded requirements.

Review

Your own confirmation that a checkpoint's requirements are met. Reviews are author checks, not a verdict on the study.

Preregistration

A timestamped plan of hypotheses and analyses, fixed before data are collected [2]. Studio locks it at Collect.

Study package

A ZIP of the project, manuscript, method scaffold, reading list, analysis record, checklist, reviewer responses and a SHA-256 file manifest.

Recipe

A Research Kitchen method guide — 19 in all — that seeds an analysis plan without overwriting your question.

References

Every reference was resolved by its DOI against Crossref (or DataCite) and matched on first author and year before it could be cited — 8 sources in this volume. Verification date per entry is kept in `references/verified.json`.

1 Simmons, J. P., Nelson, L. D., & Simonsohn, U. (2011). False-Positive Psychology. Psychological Science, *22*(11), 1359–1366. https://doi.org/10.1177/0956797611417632

2 Nosek, B. A., Ebersole, C. R., DeHaven, A. C., & Mellor, D. T. (2018). The preregistration revolution. Proceedings of the National Academy of Sciences, *115*(11), 2600–2606. https://doi.org/10.1073/pnas.1708274114

3 Wilkinson, M. D., Dumontier, M., Aalbersberg, I. J., Appleton, G., Axton, M., Baak, A., Blomberg, N., Boiten, J. W., da Silva Santos, L. B., Bourne, P. E., Bouwman, J., Brookes, A. J., Clark, T., Crosas, M., Dillo, I., Dumon, O., Edmunds, S., Evelo, C. T., Finkers, R., … Mons, B. (2016). The FAIR Guiding Principles for scientific data management and stewardship. Scientific Data, *3*(1). https://doi.org/10.1038/sdata.2016.18

4 Rosseel, Y. (2012). lavaan : An R Package for Structural Equation Modeling. Journal of Statistical Software, *48*(2). https://doi.org/10.18637/jss.v048.i02

5 Bates, D., Mächler, M., Bolker, B., & Walker, S. (2015). Fitting Linear Mixed-Effects Models Using lme4. Journal of Statistical Software, *67*(1). https://doi.org/10.18637/jss.v067.i01

6 Buuren, S. V., & Groothuis-Oudshoorn, K. (2011). mice: Multivariate Imputation by Chained Equations inR. Journal of Statistical Software, *45*(3). https://doi.org/10.18637/jss.v045.i03

7 Viechtbauer, W. (2010). Conducting Meta-Analyses in R with the metafor Package. Journal of Statistical Software, *36*(3). https://doi.org/10.18637/jss.v036.i03

8 Borland, D., & Taylor II, R. M. (2007). Rainbow Color Map (Still) Considered Harmful. IEEE Computer Graphics and Applications, *27*(2), 14–17. https://doi.org/10.1109/MCG.2007.323435

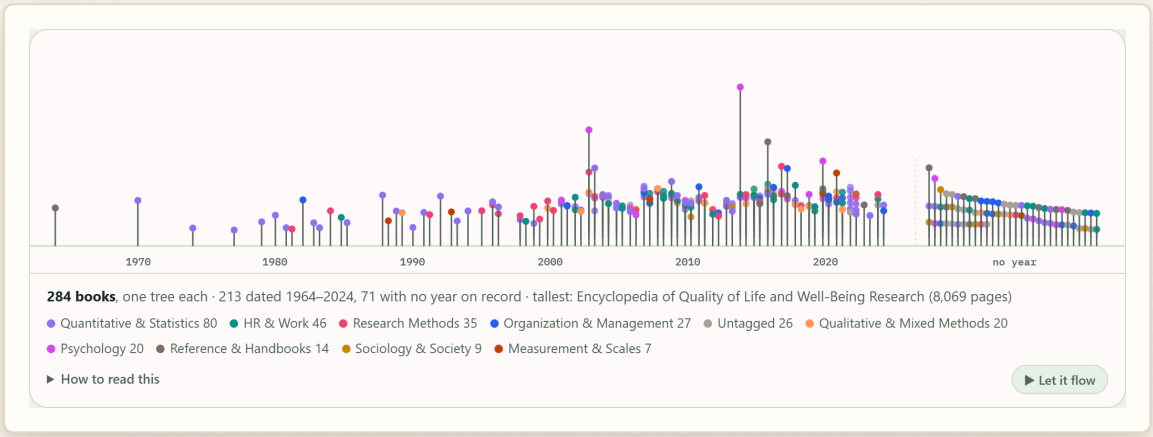
Version history & errata

This guidebook is version-controlled. Corrections are made in its source, the version number is raised, and the change is recorded here and in `CHANGELOG.md`. Report an error with the page number and the version printed in the footer.

VERSION	DATE	CHANGES
2.1.4	2026-10-18	Series back to 13 volumes (Throughline CS dropped: a separate product, not one of the Lazy Research Lad sites): covers and title pages now read 'of 13'. Text and figures unchanged.
2.1.3	2026-10-18	Series grows to 14 volumes (ScholarScope, Cadence, FallacyScope and Throughline CS added): "of 14" on the cover and title page; content unchanged.
2.1.2	2026-10-18	Series grows to ten volumes: Volume 10 (BookScope) added, so covers and title pages now read 'of 10'. Text and figures unchanged.
2.1.1	2026-10-18	Suite renamed: Throughline is now Lazy Research Lad (series, titles and text). Screenshots unchanged.
2.1.0	2026-10-17	The home's study blueprint added to Start the study, with the worked study's topic compared against the series' decisions; the river described as appearing once a study exists; cover is now the blueprint; design notes and reference updated. Figures recaptured 17 October 2026.
2.0.1	2026-10-17	Light cover edition: paper-cloth cover with the volume's accent spine and the live figure as a plate, captured in light theme 17 October 2026.
2.0.0	2026-10-17	Rewritten as a research guide closing the worked study: why a study needs one record, creating the study from a topic, the seven checkpoints and their order, author reviews, the preregistration lock, the study package, reviewer objections and a model transparency statement. New figures captured 17 October 2026.
1.0.0	2026-10-16	First edition. Figures captured 16 October 2026 from the live site in a fresh browser profile; the study shown is one of the 22 prepared working papers.

Errata

VERSION	WHERE	CORRECTION
2.1.0	Ch 2 (home) and cover	The home's study blueprint added to Start the study, with the worked study's topic compared against the series' decisions; the river described as appearing once a study exists; cover is now the blueprint; design notes and reference updated. Figures recaptured 17 October 2026.



BOOKSCOPE

Read the *long version*

BookScope — how to find what the handbooks and encyclopedias say about your construct, tell a real treatment from a passing mention, and write a definition you can defend, across 284 reference books.

Read the *long version*

Papers are short, so they cite a definition and move on. Books have room to explain it: where the idea came from, how it is measured, what it is confused with. The worked study needs a definition of burnout before it needs anything else. This volume finds it in the books.

Site. https://bookscope.vercel.app/

Version. 1.0.2 (2026-10-18) · build `3702b3b+edits` · 2026-10-18T15:45:22Z

Figures. Real screenshots of the live site, captured 2026-10-18 by `scripts/capture.mjs`; sample data shown in figures is labelled simulated where it is simulated.

Sources. 9 DOI-verified references, numbered in order of use. Nothing in this book is invented: counts and labels are read from the site or its published data.

Status. A user guide, not documentation of record. Where the site and this book differ, the site is right — please report it (see Version history).

Type. Fraunces, Plus Jakarta Sans and IBM Plex Mono (SIL Open Font License). Laid out with Paged.js.

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01

BEFORE YOU SEARCH

Why the definition comes first

A construct you cannot define cannot be measured, and one that is defined loosely will be measured with the wrong scale. Definitions are where a study is easiest to attack and cheapest to get right.

A good conceptual definition says what the concept *is*, what it is *not*, and how it differs from the constructs nearest to it [1]. Scale development starts from the same place: a clear, bounded definition comes before any item is written [2]. Papers rarely have room for that. They cite one definition and move on. Handbooks and encyclopedias give the long version: where the idea came from, how its definition changed, and what it is often confused with.

Burnout shows why. The classic definition has three components, emotional exhaustion, depersonalization and reduced personal accomplishment, measured by the Maslach Burnout Inventory [3]. The JD-R model of burnout uses two: exhaustion and disengagement [4], measured by the Oldenburg Burnout Inventory, whose convergent validity with the MBI has been tested directly [5]. The two definitions lead to different scales, and a reviewer will ask which one the study means [6].

A DEFINITION IS READY WHEN…

- [ ] I can state the definition in one sentence, with its source.
- [ ] I know which components it has, and which instrument measures exactly those.
- [ ] I can name the constructs it is most often confused with, and how mine differs.
- [ ] I have read the definition in at least one long source, not only in the paper that cited it.
- [ ] My definition matches the measure I plan to use.

THE WORKED EXAMPLE — CONTINUED

The study (Volumes 5–9) tests whether job autonomy buffers the link between long shifts and burnout among nurses, using the JD-R model. Before choosing a scale, it needs a definition of burnout: whose, with how many components, and how it differs from plain fatigue or low engagement. This volume looks for that in the reference shelf.

02

FULL-TEXT SEARCH

Search the shelf

Start with the whole library and let it tell you how many books are worth opening. Then make the search precise enough that the number means something.

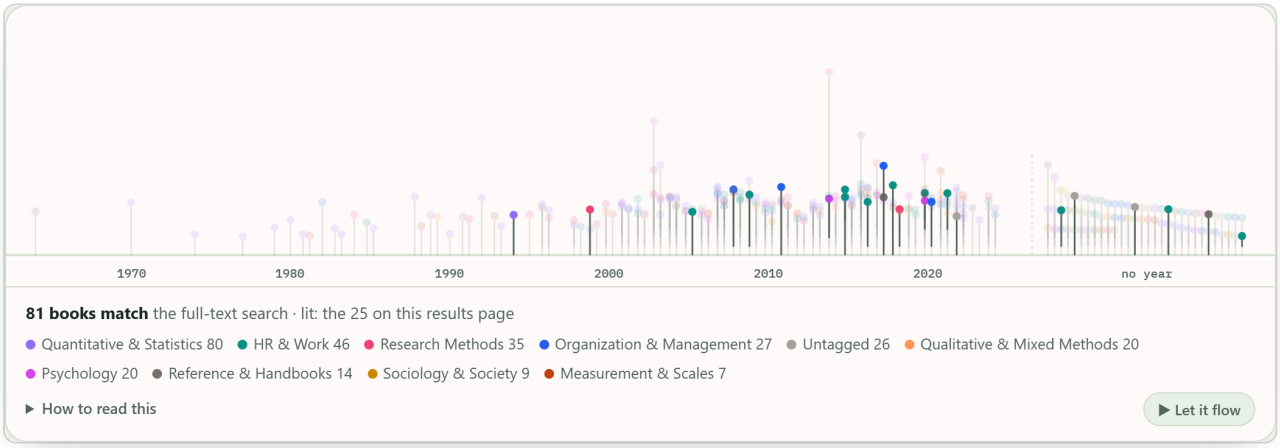


FIG 2.1 The grove lit for *burnout*: **81 books match** the full-text search; the 25 on the current results page are lit. Across = year published (1964–2024), up = pages, colour = topic. The 71 books with no year on record stand apart on the right.

The library holds 284 reference books, 128,361 pages in all. A full-text search for *burnout* finds it in 81 of them. That is a shortlist, not a reading list: the word can appear once in an index or fill a whole chapter.

Quote the phrase

SEARCH	BOOKS MATCHING	WHAT IT FINDS
burnout	81	Every book that uses the word, anywhere.
emotional exhaustion	171	Books with both words, possibly hundreds of pages apart.
"emotional exhaustion"	33	Books that use the phrase itself.

WHY THE COUNT FELL BY FOUR-FIFTHS

Unquoted search counts books containing *all* the words, wherever they fall. For a construct with a two-word name, quote it. The drop from 171 to 33 is the size of the noise, and the first quoted result is already a definition.

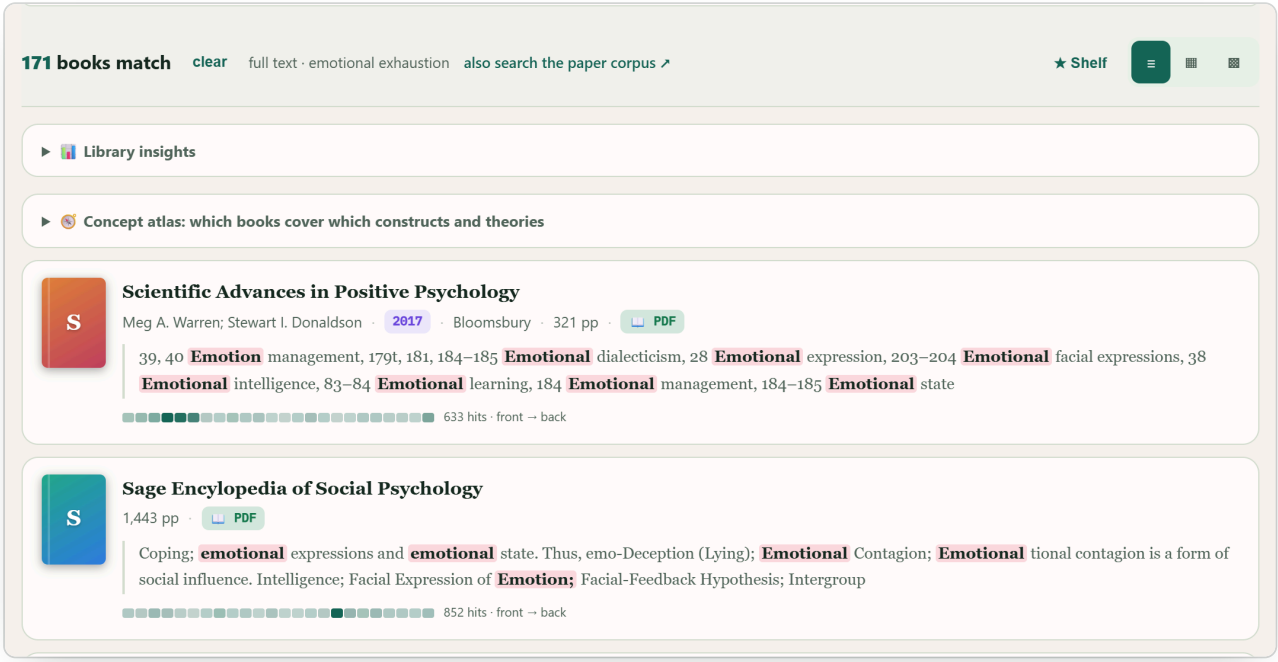


FIG 2.2 *emotional exhaustion* without quotes: **171 books match**. The top results are index pages and lists of *Emotion*, *Emotional* … entries; the two words need not appear together.

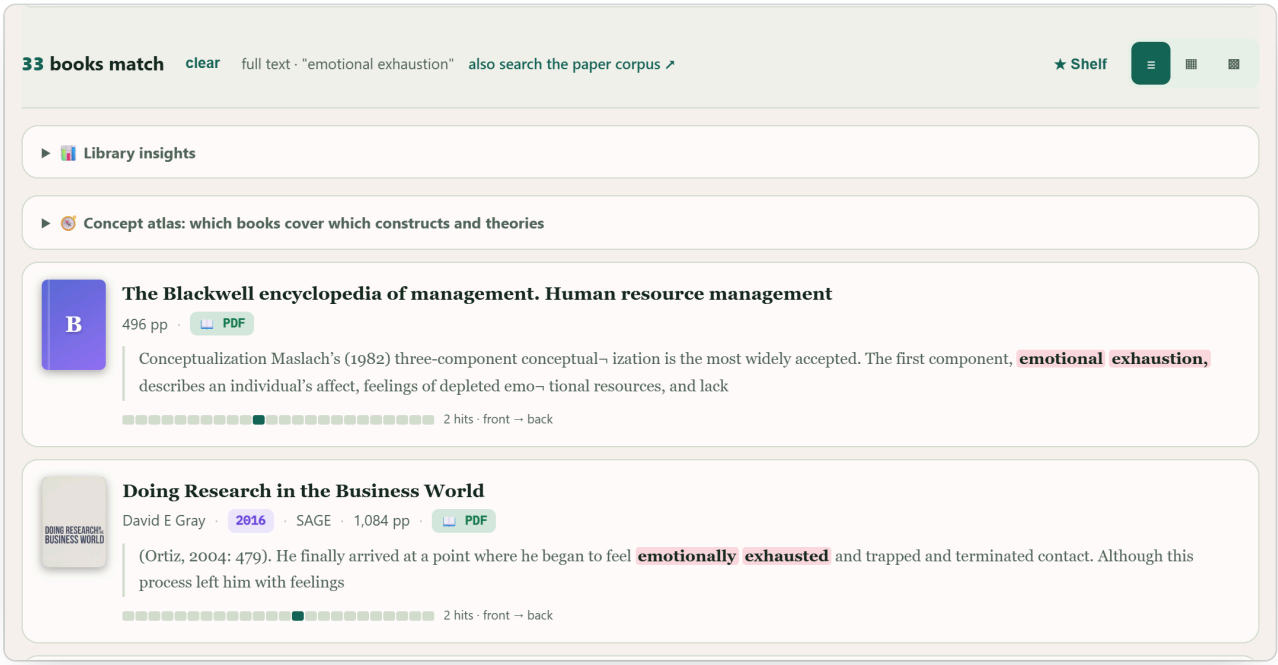


FIG 2.3 *"emotional exhaustion"* in quotes: **33 books match**. The first result is *The Blackwell encyclopedia of management. Human resource management*, in its own words: "Maslach's (1982) three-component conceptualization is the most widely accepted. The first component, emotional exhaustion, describes an individual's affect, feelings of depleted emotional resources…".

1. Search the construct's name in quotes, then its common synonyms the same way.
2. Note the count each time; a large unquoted count is not evidence of coverage.
3. Use `Refine books` to limit by topic, publisher or year when the list is long.
4. Star the books worth opening; the `★ Shelf` keeps them on this device.
5. `also search the paper corpus ↗` carries the same query to the Research Book (Volume 2).

Why it looks like this

The grove gives each book one stem: across is the year it was published, up is its length in pages, colour is its topic. Position on a common scale is the most accurately read channel, so the two quantities that matter go there, and colour, which is read least accurately, carries only a category [7,8].

Books with no year on record stand apart in their own "no year" group at the right instead of being placed at a guessed date. A visualisation should not imply precision the data do not have.

03

HIT STRIPS

A chapter, or a passing mention?

A hit count says how often a word appears. It cannot say whether the book treats the idea or just mentions it. The strip under each result can.

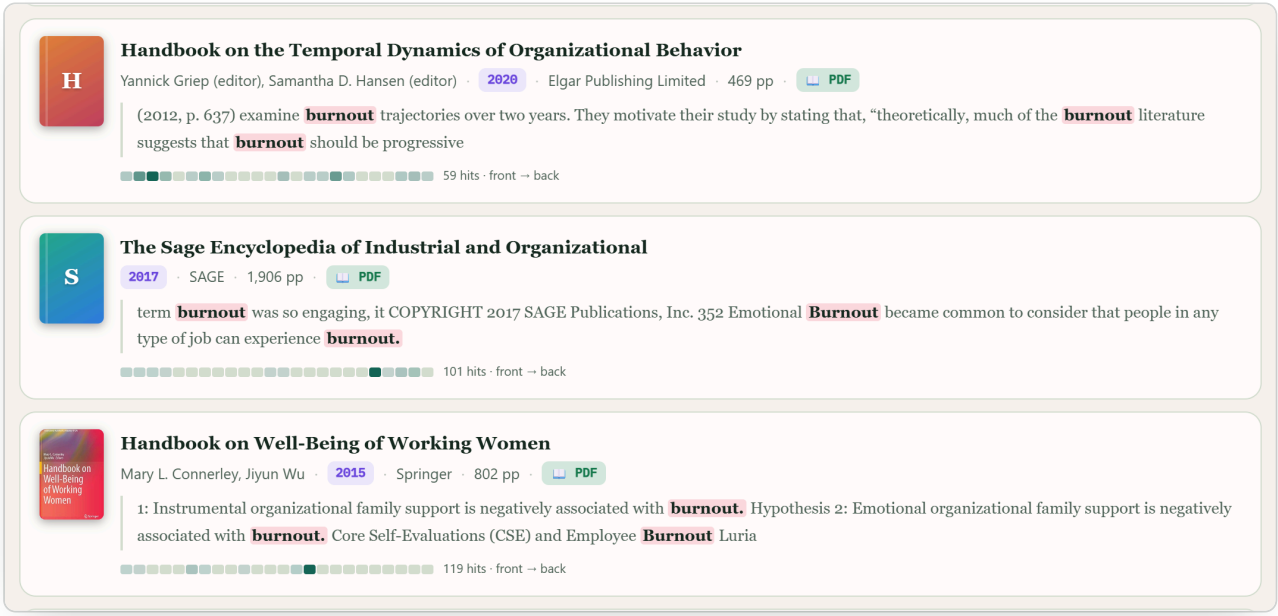


FIG 3.1 Results for *burnout* with their hit strips (front cover → back cover). *Handbook on the Temporal Dynamics of Organizational Behavior*: 59 hits spread through the book. *The Sage Encyclopedia of Industrial and Organizational* [Psychology]: 101 hits, packed into one place. *Handbook on Well-Being of Working Women*: 119 hits, bunched about a third of the way in.

Read the shape, not only the number. Hits spread thinly across a book usually mean the word is used in passing, in many chapters. Hits packed into one segment usually mean an entry or a chapter about it. The encyclopedia's single dark segment is its entry on burnout. The handbook on working women has one dark segment about a third of the way in, which is worth opening.

DENSITY IS A LEAD

The strip shows where the word occurs, not what the passage says. A dense segment can be a reference list or an index. Open the page before you count a book as a source.

04

INSIDE THIS BOOK

Open the book

Opening a result shows what the book covers, computed from its own text. Use it to decide where in an 800-page book to start reading.

The panel answers the question the strip raised. *Table of contents* opens the PDF's own bookmarks, verbatim. Chapter 17 is "The Relationship Between Organizational Family Support and Burnout Among Women in the Healthcare Industry: Core Self-Evaluation as Moderator", starting on PDF page 279 of 802, about a third of the way in. That is where the strip was dark.

> **WORKED EXAMPLE**
>
> For the worked study this chapter is close to home: burnout among women in healthcare, with a resource (organizational family support) and a moderator. It is not the definition source. That comes from the encyclopedias. But it shows how a neighbouring study framed burnout and support, which helps the literature review (Volume 2) as well as the definition.

1. Check the constructs list: does the book discuss your construct on many pages, or two?
2. Open `Table of contents` and find the chapter where the strip was dark.
3. Use `Find passages in this title` to search inside this book only.
4. Open the PDF at that page and read the passage; note the PDF page and the printed page.
5. Follow the TheoryScope links for the theories it names, if you need them.

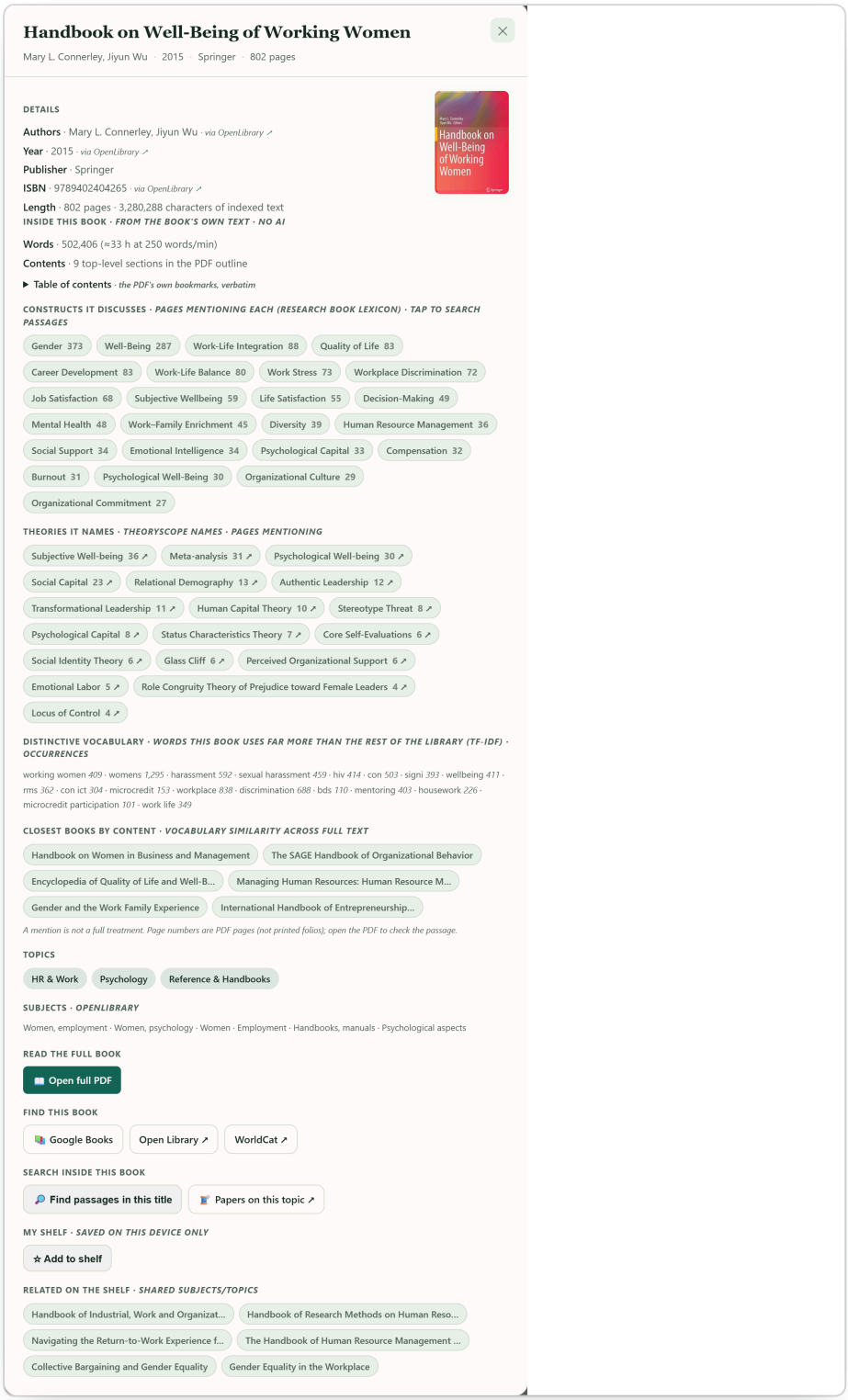


FIG 4.1 *Handbook on Well-Being of Working Women* (Connerley & Wu, Springer, 2015, 802 pages). **Inside this book**, from the book's own text with no AI: 502,406 words (about 33 hours at 250 words per minute), Burnout on 31 pages, Social Support on 34, the theories it names (linked to TheoryScope), its distinctive vocabulary and the closest books by content.

CITE THE PAGE YOU READ

The panel says this itself: "A mention is not a full treatment. Page numbers are PDF pages (not printed folios); open the PDF to check the passage." Cite the printed page, which you find by opening the page.

05

CONCEPT ATLAS

Start from the idea

When you know the construct but not the words a book will use, start from the atlas. It lists the books that spend time on a concept, most pages first.

The atlas matches each construct's name and synonyms from the Research Book lexicon (277 constructs) and each theory name from TheoryScope (377), word for word, on every page. A book is listed only if it mentions the concept on at least two pages. The top few books are the reading list for the definitions section: four books cover both burnout and JD-R on more than thirty pages each.

BOOK	BURNOUT (PAGES)	JD-R (PAGES)
The Sage Encyclopedia of Industrial and Organizational [Psychology]	78	58
Encyclopedia of Quality of Life and Well-Being Research	68	47
The Oxford handbook of positive organizational scholarship	63	31
Handbook on the Temporal Dynamics of Organizational Behavior	31	42

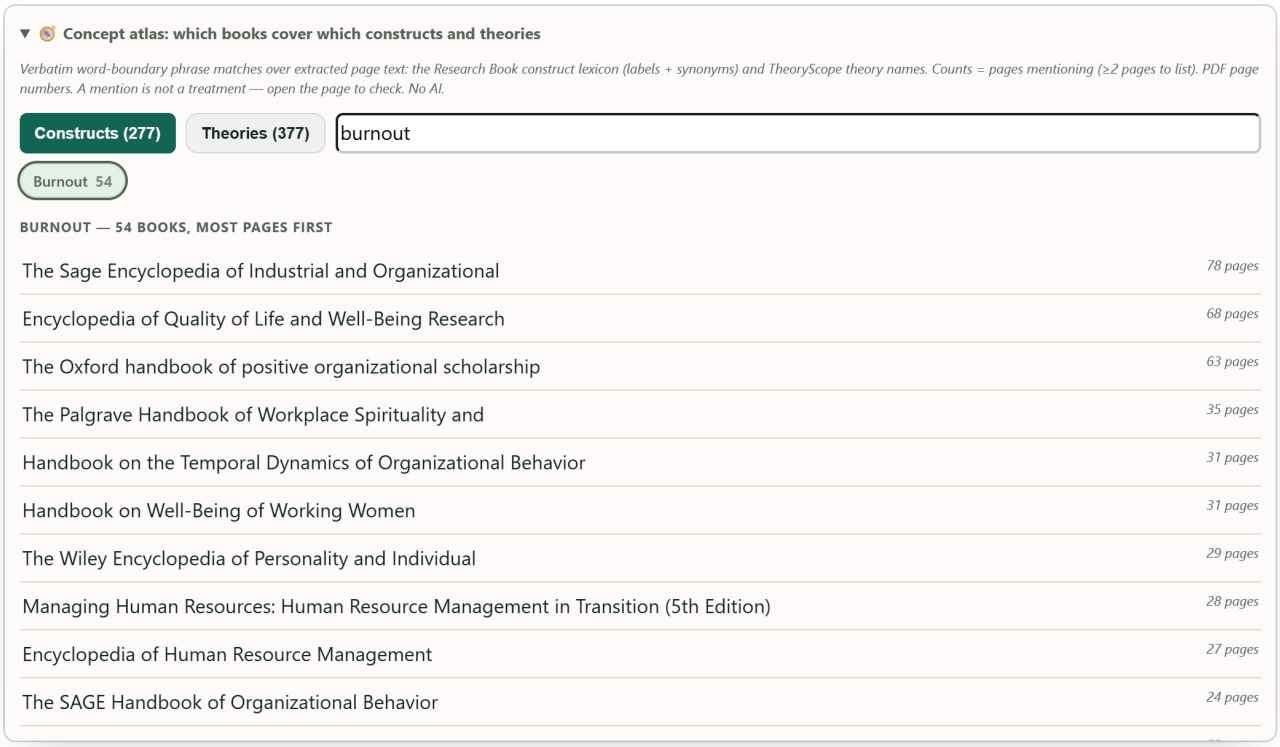


FIG 5.1 Concept atlas → Constructs → *Burnout*: **54 books**, most pages first (the top ten shown). *The Sage Encyclopedia of Industrial and Organizational* [Psychology] leads with 78 pages, then *Encyclopedia of Quality of Life and Well-Being Research* (68) and *The Oxford handbook of positive organizational scholarship* (63).

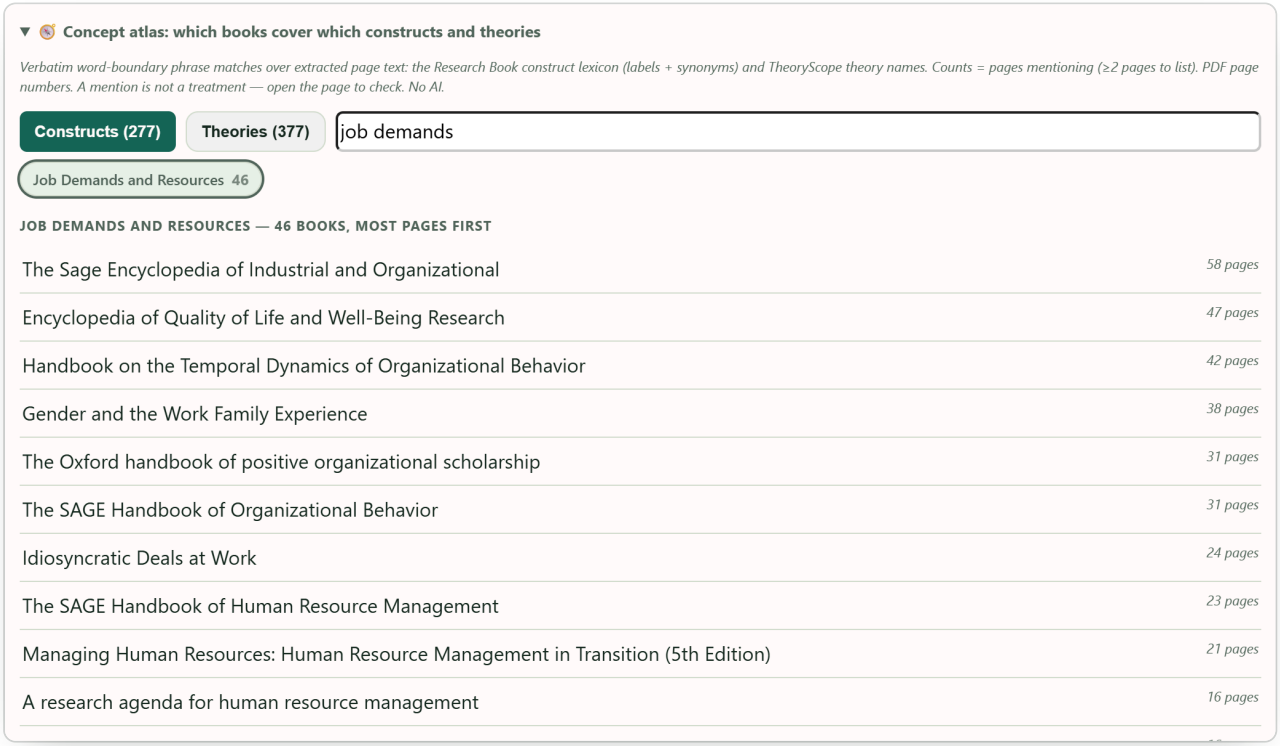


FIG 5.2 The same atlas for *Job Demands and Resources*: **46 books** (the top ten shown). The Sage encyclopedia again leads (58 pages), then the quality-of-life encyclopedia (47) and the *Handbook on the Temporal Dynamics of Organizational Behavior* (42).

WHAT AN ATLAS COUNT MEANS

Atlas counts are pages that *mention* the concept by name. A book that discusses burnout only under a name the lexicon does not list is under-counted, and a page that only lists the word in a table of contents is counted. The atlas ranks where to look; it does not grade the treatment.

06

THE OBJECTIONS YOU WILL MEET

Defend it

Reviewers test definitions by asking which one you mean and why. Answer these before they ask.

REVIEWER	YOUR ANSWER
"Which definition of burnout are you using?"	Name it and its source: the three-component definition [3] or the two-component JD-R definition [4]. Say why it fits the study, and use the instrument built for that definition.
REVIEWER	YOUR ANSWER
"Your definition and your measure don't match."	Check before submission: a two-component definition measured with a three-component scale (or the reverse) is a validity problem, not a detail [5].
REVIEWER	YOUR ANSWER
"How is burnout different from fatigue, or from low engagement?"	Give the boundary in the definition itself [1]. The long sources found here discuss these neighbours; cite the one you read, at the page you read.
REVIEWER	YOUR ANSWER
"You cite an encyclopedia, not the original."	Use the encyclopedia to find and understand the definition, then cite the primary source it names, and read that too. Cite the encyclopedia only for its own synthesis.

07

FROM BOOKS TO PROSE

Write the definition

The definition paragraph names the construct, gives its definition with a source, marks its boundary, and ties it to the measure.

1. **Name and define:** one sentence, with the primary source.
2. **Components:** what the definition includes, and which version you adopt.
3. **Boundary:** what it is not, and the nearest construct it must be told apart from.
4. **Measure:** the instrument that matches the definition.

MODEL PARAGRAPH

Burnout has most often been defined as a syndrome of emotional exhaustion, depersonalization and reduced personal accomplishment [3]. Within the Job Demands–Resources model it is defined more narrowly as exhaustion and disengagement from work [4], two components that have shown convergent validity with the original definition [5].

Because this study is framed by the JD-R model, we adopt the two-component definition and measure it with the instrument developed for it. We treat burnout as distinct from low work engagement, which JD-R theory models as a separate, motivational state [9], and from short-term tiredness after a single shift.

Model paragraph for the illustrative study. Each claim is attributed to a source in this volume's reference list; before publishing, read each source at the passage you cite. The BookScope searches in this volume show where to find the long versions; adapt the structure, not the wording.

BEFORE YOU SUBMIT THE SECTION

- [ ] The definition is quoted or paraphrased from a primary source, with its citation.
- [ ] The chosen version (components) is stated, with a reason.
- [ ] At least one neighbouring construct is ruled out explicitly.
- [ ] The measure named matches the definition adopted.
- [ ] Every page cited was opened and read.

08

REFERENCE

BookScope at a glance

The views, searches and limits, for when you know what you want and need to find where it lives.

PART	USE IT TO…
Grove	See the library at once: one stem per book (year, pages, topic); lights the books matching a search.
Search	`Full text` searches inside the books; titles, authors and publishers otherwise. Quote phrases.
Results	Read the snippet and the hit strip; star to `★ Shelf` ; switch the results layout.
Inside this book	Words, outline, constructs and theories by pages, distinctive vocabulary, closest books; `Find passages in this title` .
Concept atlas	Pick a construct (277) or a theory (377); books mentioning it on ≥ 2 pages, most pages first.

LIBRARY	COUNT
Books	284
Pages	128,361
Searchable in full text	279
With a publication year	213 (1964–2024)
Without a year (kept apart, not guessed)	71

WHERE THE RECORDS COME FROM

Titles, authors and years come from each PDF's own metadata, filled in from Open Library where it was missing and marked "via OpenLibrary". Text is the books' own, extracted page by page; nothing is summarised or generated. Counts are mentions, never judgements, and page numbers are PDF pages. The counts tell you where to look. Only the page tells you what it says.

Glossary

Full-text search

A search over the extracted page text of every searchable book (279 of 284), not only titles. Unquoted words may match anywhere in a book; a quoted phrase must appear as written.

Hit strip

The bar under each result: the book from front cover to back, split into equal segments, darker where the search term occurs more often.

Concept atlas

Pre-computed, verbatim word-boundary matches of the Research Book construct lexicon (277 constructs) and TheoryScope theory names (377) over every page. A book is listed when it mentions the concept on at least two pages.

Inside this book

A panel computed from the book's own text, with no AI: word count, the PDF's own outline, constructs and theories by pages mentioning, distinctive vocabulary and the closest books by content.

PDF page

The page number in the PDF file, counted from its first page. It is not the printed page number (folio), which is usually lower.

Construct clarity

A definition that states what the concept is, what it is not, and how it differs from its neighbours [1].

References

Every reference was resolved by its DOI against Crossref (or DataCite) and matched on first author and year before it could be cited — 9 sources in this volume. Verification date per entry is kept in `references/verified.json`.

1 Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2016). Recommendations for Creating Better Concept Definitions in the Organizational, Behavioral, and Social Sciences. Organizational Research Methods, *19*(2), 159–203. https://doi.org/10.1177/1094428115624965

2 Clark, L. A., & Watson, D. (1995). Constructing validity: Basic issues in objective scale development.. Psychological Assessment, *7*(3), 309–319. https://doi.org/10.1037/1040-3590.7.3.309

3 Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. Journal of Organizational Behavior, *2*(2), 99–113. https://doi.org/10.1002/job.4030020205

4 Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout.. Journal of Applied Psychology, *86*(3), 499–512. https://doi.org/10.1037/0021-9010.86.3.499

5 Demerouti, E., Bakker, A. B., Vardakou, I., & Kantas, A. (2003). The Convergent Validity of Two Burnout Instruments. European Journal of Psychological Assessment, *19*(1), 12–23. https://doi.org/10.1027//1015-5759.19.1.12

6 Schaufeli, W. B., Leiter, M. P., & Maslach, C. (2009). Burnout: 35 years of research and practice. Career Development International, *14*(3), 204–220. https://doi.org/10.1108/13620430910966406

7 Cleveland, W. S., & McGill, R. (1984). Graphical Perception: Theory, Experimentation, and Application to the Development of Graphical Methods. Journal of the American Statistical Association, *79*(387), 531–554. https://doi.org/10.1080/01621459.1984.10478080

8 Munzner, T. (2014). Visualization Analysis and Design. A K Peters/CRC Press. https://doi.org/10.1201/b17511

9 Bakker, A. B., & Demerouti, E. (2017). Job demands–resources theory: Taking stock and looking forward.. Journal of Occupational Health Psychology, *22*(3), 273–285. https://doi.org/10.1037/ocp0000056

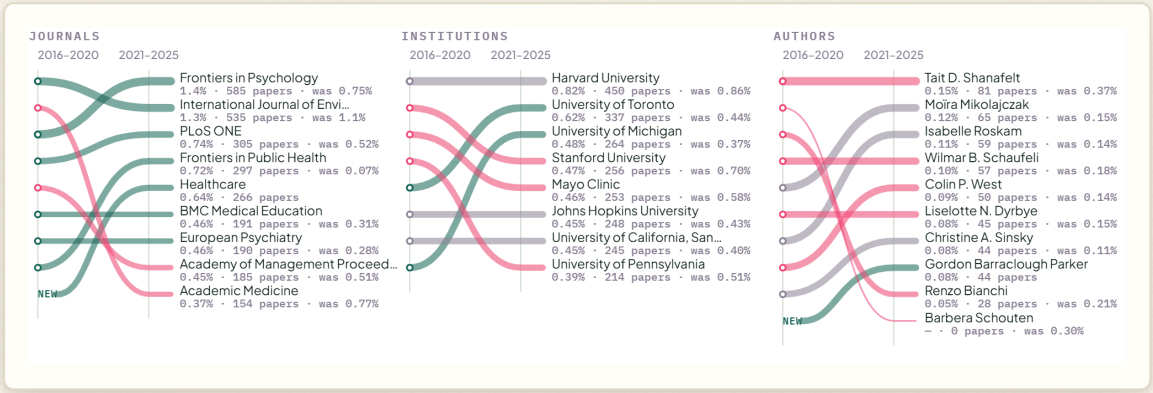
Version history & errata

This guidebook is version-controlled. Corrections are made in its source, the version number is raised, and the change is recorded here and in `CHANGELOG.md`. Report an error with the page number and the version printed in the footer.

VERSION	DATE	CHANGES
1.0.2	2026-10-18	Series back to 13 volumes (Throughline CS dropped: a separate product, not one of the Lazy Research Lad sites): covers and title pages now read 'of 13'. Text and figures unchanged.
1.0.1	2026-10-18	Series grows to 14 volumes (ScholarScope, Cadence, FallacyScope and Throughline CS added): "of 14" on the cover and title page; content unchanged.
1.0.0	2026-10-18	First edition, written as a research guide on the series' worked study: why definitions come from long sources, loose versus phrase search, reading the hit strips, inside a book, the concept atlas, reviewer objections and a model definition paragraph. Figures captured 18 October 2026 from the live site; 1 new verified reference.

Errata

No errata recorded for this version.



SCHOLARSCOPE

Know *who is talking*

ScholarScope — how to see which journals, institutions, authors and countries carry your topic now, read a scholar's record, and draw a first shortlist of journals, from live OpenAlex records.

LAZY RESEARCH LAD GUIDEBOOKS · VOL. 11

Know *who is talking*

A literature review joins a conversation. Before you write your way into it, find out who is in it: which journals publish the topic, which groups and people lead it, where it is growing, and where your own paper could land. This volume does that for the worked study.

Site. https://syahmedu.github.io/scholarscope/

Version. 1.0.1 (2026–10–18) · build `3702b3b+edits` · 2026–10–18T15:45:22Z

Figures. Real screenshots of the live site, captured 2026–10–18 by `scripts/capture.mjs`; sample data shown in figures is labelled simulated where it is simulated.

Sources. 8 DOI-verified references, numbered in order of use. Nothing in this book is invented: counts and labels are read from the site or its published data.

Status. A user guide, not documentation of record. Where the site and this book differ, the site is right — please report it (see Version history).

Type. Fraunces, Plus Jakarta Sans and IBM Plex Mono (SIL Open Font License). Laid out with Paged.js.

Contents

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02 Who carries the topic now 5

What moved 6

Why it looks like this 6

03 Where the topic is carried 7

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01

BEFORE YOU SEARCH

Who is in the conversation

A paper is read against the work it answers. Knowing where that work is published, and by whom, tells you what to read, whom you must cite, and which journals will recognise your paper as part of their conversation.

A literature review is organised around concepts, not authors, but it starts from knowing the main contributors and where they publish [1]. Authors show that their work belongs to a field by citing it coherently, so the reader sees a shared conversation that the paper then extends [2]. Missing the people and journals that carry a topic is one of the quickest ways to look like an outsider.

ScholarScope answers four questions from live OpenAlex records [3]: which journals, institutions and authors carry the topic now and five years ago; which countries carry more of it than their size predicts; what a given scholar's record looks like; and, in the Publish desk, which journals fit a paper's field, quality and speed.

YOU KNOW THE CONVERSATION WHEN…

- [ ] I can name the journals that publish most of my topic now, and the ones that used to.
- [ ] I know the scholars whose work defines the topic, and have read their most-cited papers.
- [ ] I know whether my setting (country, sector) is common or rare in the topic's literature.
- [ ] I have a shortlist of journals whose readers are in this conversation.

THE WORKED EXAMPLE — CONTINUED

The study (Volumes 5–10) tests whether job autonomy buffers the link between long shifts and burnout among nurses, using the JD-R model. It has a definition (Volume 10), a theory (Volume 5) and a measure (Volume 6). Before the literature review and the cover letter, it needs to know who carries burnout research now, and which journals might take the paper.

02

TOPIC CURRENTS

Who carries the topic now

Type the topic once. Three charts show which journals, institutions and authors hold the largest share of it now, and where they stood five years ago.

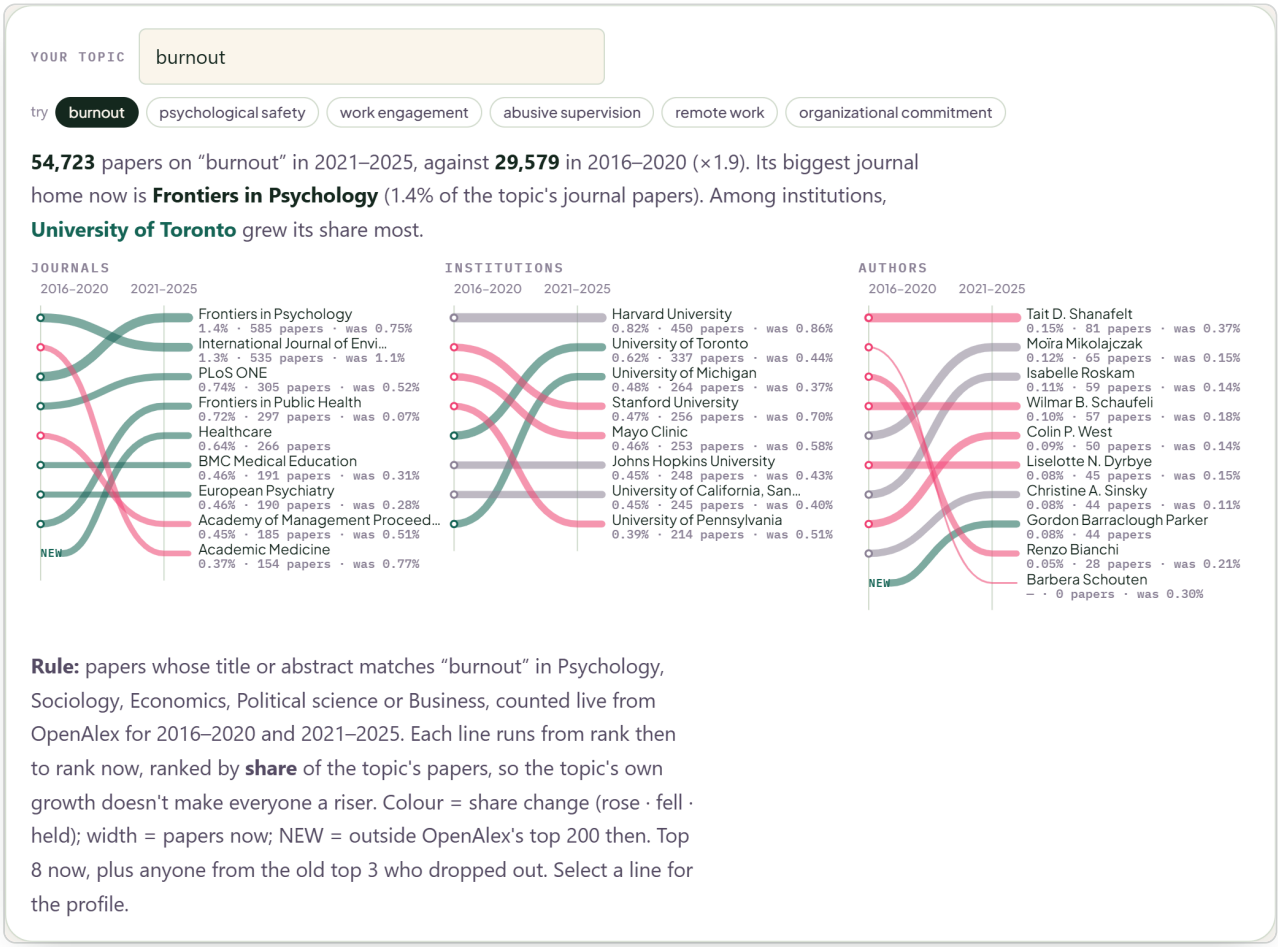

FIG 2.1 Topic currents for *burnout*. **54,723 papers** in 2021–2025 against **29,579** in 2016–2020 (×1.9), in the five fields of the lens. Journals: *Frontiers in Psychology* leads with 1.4% (585 papers). Institutions: *Harvard University* 0.82% (450); *University of Toronto* grew its share most (0.44% → 0.62%). Authors: *Tait D. Shanafelt* 0.15% (81 papers); *Wilmar B. Schaufeli* 0.10% (57).

Read the numbers before the lines. The largest journal holds 1.4% of the topic and the largest institution under 1%. Burnout research is not owned by a few venues or groups. It is spread across hundreds. For the literature review, that means a search of two or three journals will miss most of it.

What moved

MOVEMENT	FROM THE FIGURE	WHAT IT SUGGESTS
New entrant	*Healthcare* (NEW, 0.64%); *Frontiers in Public Health* 0.07% → 0.72%	Burnout has moved into health-services and open-access outlets.
Fell	*Academic Medicine* 0.77% → 0.37%; *Academy of Management Proceedings* 0.51% → 0.45%	Older homes now carry a smaller share, though they still publish on it.
Author rising	*Gordon Barraclough Parker* (NEW, 44 papers)	A newer, productive line of work worth checking.
Author fell	*Renzo Bianchi* 0.21% → 0.05%; *Barbera Schouten* 0.30% → 0 papers	Fewer papers now, or a record split under another name. Open the profile.

> **WHAT A LINE CAN AND CANNOT TELL YOU**
>
> Matching is by words in the title or abstract, so a paper that mentions burnout in passing counts as much as one about it. A drop to zero papers can mean a scholar stopped publishing on the topic, or that OpenAlex now files their work under a different author record. The site says so in its rule; open the profile before you draw a conclusion about a person.

1. Type your topic in `Your topic`, or pick one of the `try` chips.
2. Read the sentence under the box first: the topic's size now, then, and its biggest journal home.
3. Scan each chart for new entrants (NEW) and large fallers.
4. Select a line to open that journal, institution or author's profile.
5. Repeat with the topic's neighbours (*work engagement*, *emotional exhaustion*) to see whether the same names recur.

Why it looks like this

Topic currents are bump charts: each line joins a rank then to a rank now. Rank is drawn as vertical position, the most accurately read channel, so who overtook whom is read first [4]. Ranking by share rather than by count is a choice about the question: a topic that doubles in size would otherwise make every regular contributor look like a riser.

Colour carries only the direction of the change (rose, fell, held) and line width only the papers now. These are secondary readings, and both channels are less precisely read than position, so the chart puts the exact share and count in text beside each name [5].

The Countries chart puts both axes on log scales. Paper counts span from 25 to several thousand, and the size index is a ratio, where ×2 and ×½ should sit the same distance from ×1. Only labelled countries carry tails to their 2016–2020 position, to keep the field readable.

03

COUNTRIES

Where the topic is carried

Big countries publish more of everything. The Countries view asks a sharper question: which countries publish more of your topic than their size in the field predicts?

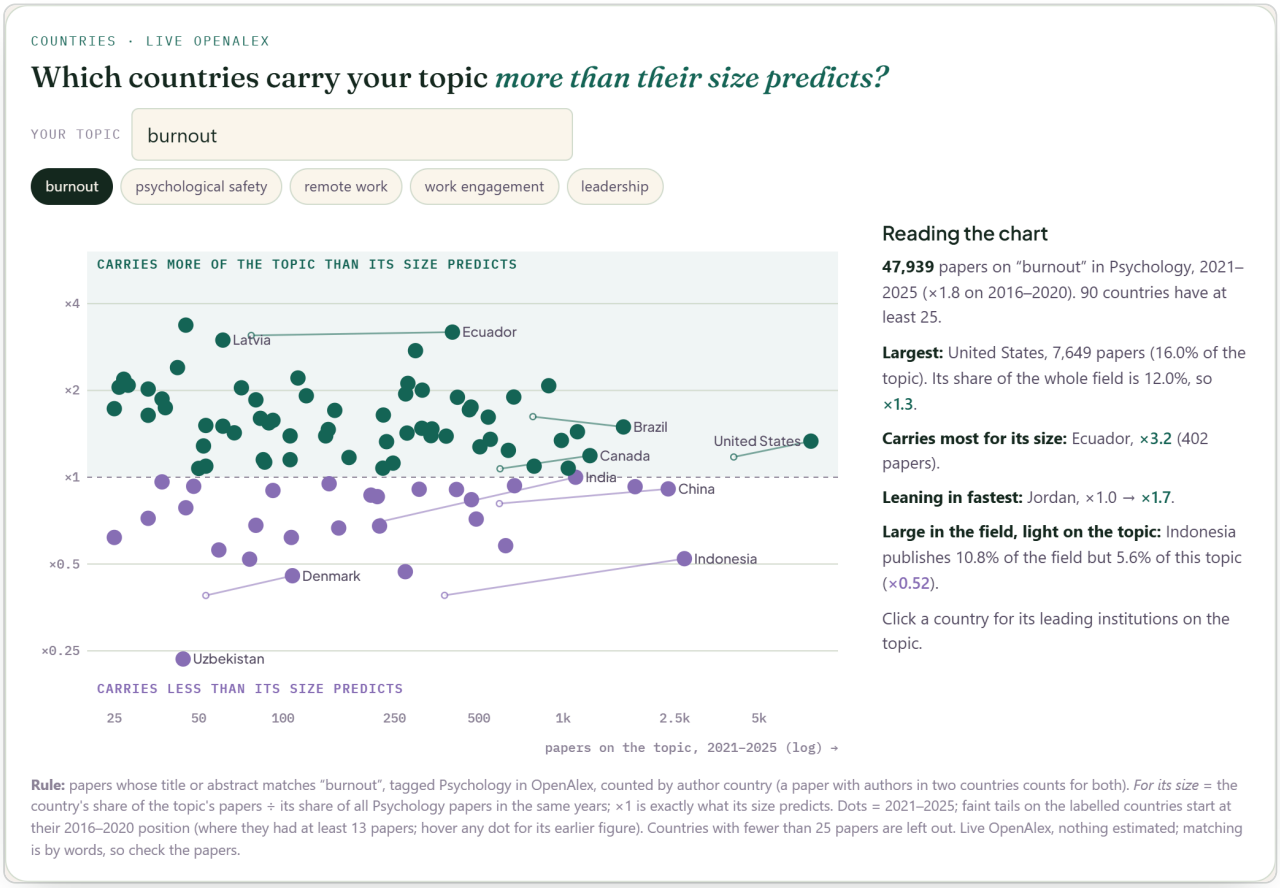

FIG 3.1 Countries for *burnout* in Psychology, 2021–2025: **47,939 papers** (×1.8 on 2016–2020), 90 countries with at least 25. Largest: *United States*, 7,649 papers, 16.0% of the topic against 12.0% of the field (×1.3). Most for its size: *Ecuador* ×3.2 (402 papers). Leaning in fastest: *Jordan* ×1.0 → ×1.7. Large in the field, light on the topic: *Indonesia*, 10.8% of the field but 5.6% of the topic (×0.52).

Above the dashed line, a country carries more of the topic than its size predicts; below, less. Across, the number of papers, on a log scale. A country high and to the right both publishes a lot on the topic and leans into it. One low and to the right is a big producer in the field that studies the topic relatively little.

WORKED EXAMPLE

Where the study's nurses work matters for its contribution. If the sample comes from a country that carries little of the topic for its size, the setting itself is part of the case for the study, provided the paper explains why burnout might differ there and does not rest on novelty alone. If it comes from a country already heavy on the topic, the contribution has to come from the question (autonomy as a buffer), not the place.

Click the country in the chart to list its leading institutions on the topic. These are the local groups whose work the review should cite and whose measures may already be adapted for that setting.

HOW THE INDEX IS COUNTED

Counts are by author country: a paper with authors in two countries counts for both. Only papers OpenAlex tags with the chosen field are counted; switch the field chips to check whether the pattern holds in Business or Sociology. Countries with fewer than 25 topic papers are left out rather than shown with unstable ratios.

04

PROFILES

Read a scholar's record

A profile turns a name in the currents into a body of work: how much, how cited, on what, and which papers carry it. Use it to find the primary sources you must read.

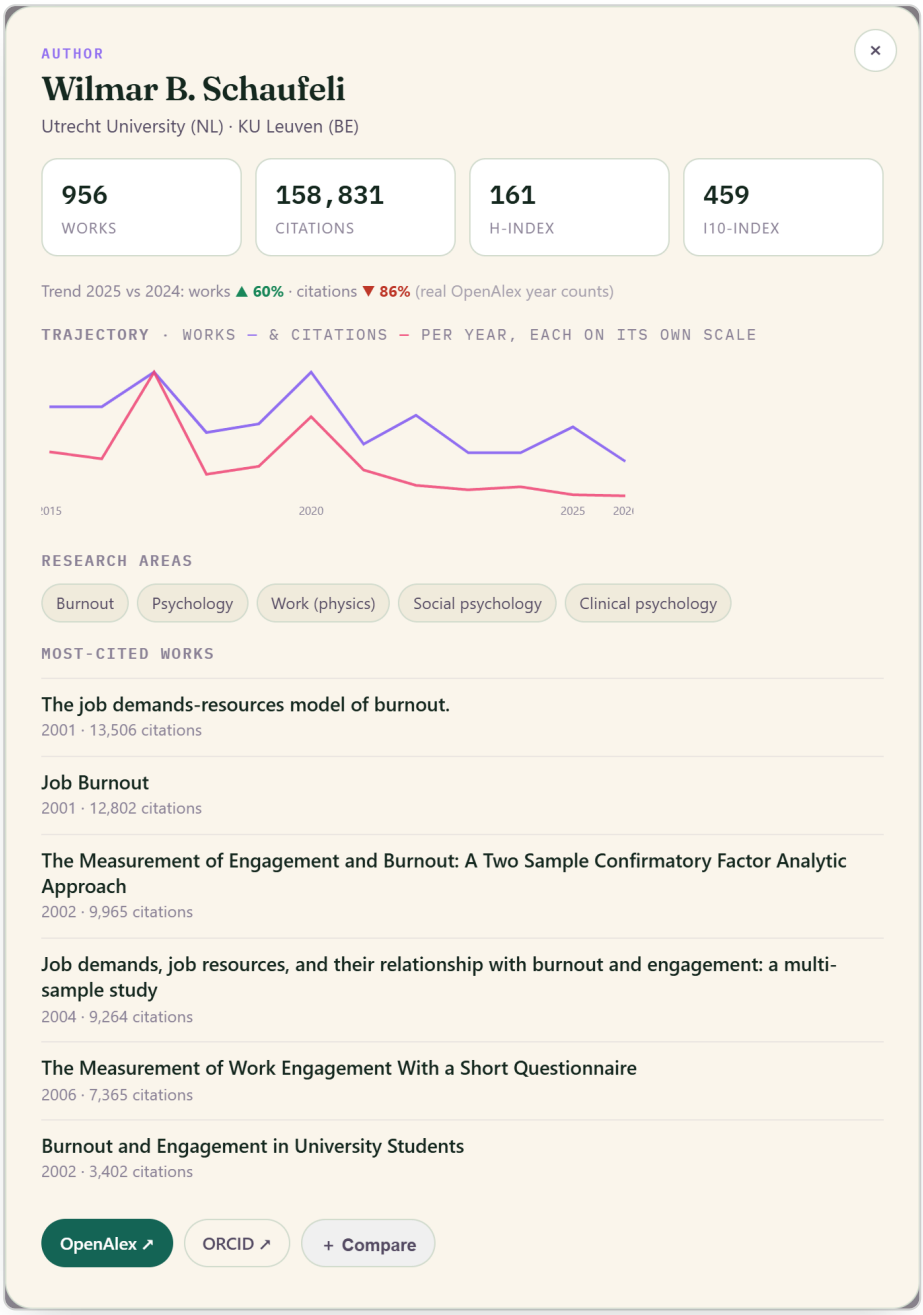

FIG 4.1 Selecting *Wilmar B. Schaufeli* in the author currents opens his OpenAlex profile: 956 works, 158,831 citations, h-index 161. His most-cited works include *The job demands-resources model of burnout* (2001, 13,506 citations) and *The Measurement of Work Engagement With a Short Questionnaire* (2006, 7,365).

For the worked study this profile is a reading list. Its two most relevant entries are the papers behind the study's theory and outcome: the JD-R model of burnout [6] and the short work-engagement scale [7]. A profile also shows the scholar's co-authored work, so it leads to the rest of the group. *The job demands-resources model of burnout* appears here because Schaufeli is a co-author; its first author is Demerouti.

1. Open the profiles of the top three or four authors in the currents.
2. From each, note the most-cited works that bear on your question, and read them.
3. Use `+ Compare` to set two or three scholars side by side.

4. Use `OpenAlex ↗` or `ORCID ↗` to check the record and see the full list of works.
5. For construct-level detail on authors in the Research Book corpus, open `Author Explorer ↗`.

> **READ THE RECORD, CHECK THE TAGS**
>
> Research areas are OpenAlex's automatic tags, and some are wrong: this profile lists *Work (physics)*, a tag for the word "work", not a field Schaufeli works in. Citation and year counts come from OpenAlex as it stands; the profile's trend line compares only the last two years, so treat a one-year swing as a question and check the year counts on OpenAlex before reading anything into it.

05

PUBLISH DESK

A first shortlist of journals

The currents show where the topic is published. The Publish desk narrows that to journals that fit your paper's field, quality and the time you can wait for a decision.

The desk holds 1,805 journals with first-decision, acceptance-time and acceptance-rate data. Every figure carries its source: publisher-stated, community-reported, or estimated. 347 of the 1,805 carry an estimate rather than a stated or reported figure, and the site badges each one.

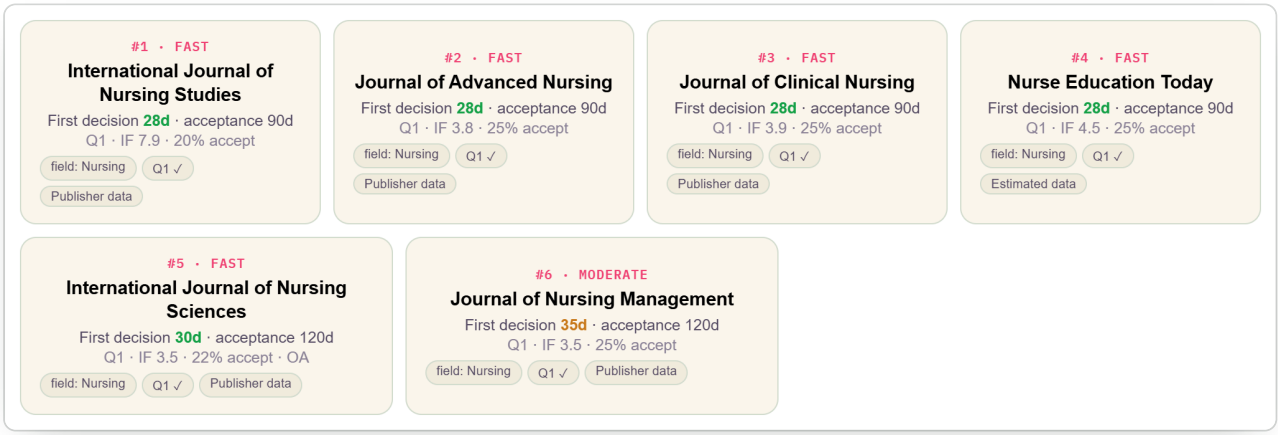

FIG 5.1 `Find my journal` with field *Nursing* and *Q1 only*, ranked by first decision: *International Journal of Nursing Studies* (28 days, IF 7.9, 20% accepted), *Journal of Advanced Nursing* (28), *Journal of Clinical Nursing* (28), *Nurse Education Today* (28, **estimated**), *International Journal of Nursing Sciences* (30, open access) and *Journal of Nursing Management* (35). Each card restates the criteria it met and its data source.

Speed is the last criterion, not the first. A journal fits when its readers are in the conversation the paper joins, which the currents and the journals' own recent issues show. Four of the six journals above give the same 28 days and 90 days. That may be a publisher-stated figure rather than one measured journal by journal. Check each journal's own page, and compare measured submission-to-publication times in Volume 8.

WORKED EXAMPLE

The worked study sits between two fields. As a nursing workforce study it fits the nursing journals above. As a test of JD-R theory it could go to an organisational behaviour journal; Volume 8 compares those. The choice depends on which conversation the paper joins, and the literature review should be written for that journal's readers.

1. Choose a `Field`, a minimum quartile and an access type; add `Max wait (days)` only if you have a real deadline.
2. Press `Find journals →` and open each card for details and live OpenAlex metrics.
3. In `Browse journals`, star (☆) candidates to keep a shortlist on this device.
4. With two or more starred, `Compare →` sets them side by side.
5. Check the source badge on every speed figure before relying on it.

WHAT THE SHORTLIST IS

Turnaround figures are what publishers state, what authors report or, where neither exists, an estimate; none is a promise for your paper. Acceptance rate is not your chance of acceptance. The ranking only sorts the journals that meet your criteria; it does not judge fit.

06

THE OBJECTIONS YOU WILL MEET

Defend it

Reviewers and editors test whether a paper knows its conversation. These are the questions that ScholarScope helps you answer before they are asked.

REVIEWER	YOUR ANSWER
"The review misses key work on this topic."	Check the review against the authors who lead the currents for your topic and its neighbours, and their most-cited papers. Cite the primary source, not a later summary of it.
REVIEWER *"Burnout is a crowded topic. What is new here?"*	YOUR ANSWER Growth (×1.9 in five years) shows interest, not a gap. Name the gap in the question itself, here autonomy as a buffer under long shifts, and show it with the literature (Volumes 2 and 4).
REVIEWER *"Why this setting?"*	YOUR ANSWER If the country carries little of the topic for its size, say so with the figure and its source, and give a reason burnout might work differently there. Novelty of place alone is not a contribution.
REVIEWER *"Why submit to this journal?"*	YOUR ANSWER Show that the journal publishes this conversation now: its recent papers on the topic, and the readers your findings serve. Speed is not a reason an editor accepts.

MODEL PARAGRAPH

Research on burnout has grown quickly: OpenAlex records 54,723 papers on the topic in five social-science fields in 2021–2025, against 29,579 in 2016–2020 [3]. The literature is also widely dispersed; no single journal carries more than 1.4% of it. Much of this work follows the Job Demands–Resources model [6,8], and engagement is commonly measured with a short scale developed within that tradition [7].

Model sentences for the illustrative study. Counts are from ScholarScope's live OpenAlex query on 18 October 2026, with its rule (title or abstract matching, five fields); re-run the query and report the date and rule if you use such figures, since OpenAlex updates continuously.

07

REFERENCE

ScholarScope at a glance

The views, data sources and limits, for when you know what you want and need to find where it lives.

PART	USE IT TO…
Topic currents	See which journals, institutions and authors carry a topic, by share, now and five years ago; select a line for the profile.
🏆 Leaders	Rank institutions, authors or journals in a field by works in OpenAlex.
🧭 Countries	See which countries carry a topic more or less than their size in the field predicts; click one for its institutions.
🔎 Search	Find any institution, author or journal in OpenAlex by name.
📮 Publish	`Find my journal`, `Browse journals` (filters, star, compare) and the Journal Explorer.
👤 Author Explorer	Construct-level dossiers for authors in the Research Book corpus.

SOURCE	WHAT IT SUPPLIES
OpenAlex (live)	Currents, Leaders, Countries, Search, profiles and live journal metrics.
Curated journal list	1,805 journals with turnaround and acceptance data; 347 carry an estimated turnaround, badged.
Lens	Psychology, Sociology, Economics, Political science and Business.

WHERE THE RECORDS COME FROM

Every entity and count is a real OpenAlex record, linked so you can open it. Nothing is estimated except the badged journal turnarounds. Matching is by words, and OpenAlex's field tags and author records have errors, so the counts tell you where to look; the papers tell you what is there.

Glossary

Lens

The five OpenAlex fields ScholarScope counts in: Psychology, Sociology, Economics, Political science and Business. A paper counts when OpenAlex tags it with one of them.

Share

A journal's, institution's or author's papers on the topic as a percentage of all the topic's papers in the same five years. Ranking by share stops the topic's own growth from making everyone look like a riser.

Topic currents

Three bump charts (journals, institutions, authors): each line runs from its rank by share in 2016–2020 to its rank in 2021–2025.

NEW

Outside OpenAlex's top 200 for the topic in 2016–2020.

For its size

A country's share of the topic's papers divided by its share of all papers in the field in the same years. ×1 is what its size predicts.

h-index

The largest number h such that h of the scholar's works have at least h citations each, as OpenAlex counts them.

Estimated turnaround

A first-decision time in the Publish desk that is a badged guess, never a measurement. Publisher-stated and community-reported figures are badged too.

References

Every reference was resolved by its DOI against Crossref (or DataCite) and matched on first author and year before it could be cited — 8 sources in this volume. Verification date per entry is kept in `references/verified.json`.

1 Webster, J., & Watson, R. T. (2002). Analyzing the Past to Prepare for the Future: Writing a Literature Review. MIS Quarterly, *26*(2), xiii-xxiii. https://doi.org/10.2307/4132319

2 Locke, K., & Golden-Biddle, K. (1997). Constructing opportunities for contribution: Structuring intertextual coherence and "problematizing" in organizational studies. Academy of Management Journal, *40*(5), 1023–1062. https://doi.org/10.2307/256926

3 Priem, J., Piwowar, H., & Orr, R. (2022). OpenAlex: A fully-open index of scholarly works, authors, venues, institutions, and concepts. arXiv. https://doi.org/10.48550/arXiv.2205.01833

4 Cleveland, W. S., & McGill, R. (1984). Graphical Perception: Theory, Experimentation, and Application to the Development of Graphical Methods. Journal of the American Statistical Association, *79*(387), 531–554. https://doi.org/10.1080/01621459.1984.10478080

5 Munzner, T. (2014). Visualization Analysis and Design. A K Peters/CRC Press. https://doi.org/10.1201/b17511

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Version history & errata

This guidebook is version-controlled. Corrections are made in its source, the version number is raised, and the change is recorded here and in `CHANGELOG.md`. Report an error with the page number and the version printed in the footer.

VERSION	DATE	CHANGES
1.0.1	2026-10-18	Series back to 13 volumes (Throughline CS dropped: a separate product, not one of the Lazy Research Lad sites): covers and title pages now read 'of 13'. Text and figures unchanged.
1.0.0	2026-10-18	First edition, written as a research guide on the series' worked study: topic currents, countries for their size, reading a scholar's profile, a first journal shortlist, reviewer objections and a model positioning paragraph. Figures captured 18 October 2026 from the live site.

Errata

No errata recorded for this version.

CADENCE

Ask it *well, and again*

Cadence — how to turn a measurement plan into a survey participants can finish: preview what they will answer, keep only the items you need, ask for consent properly, run it in waves and bring the data home.

LAZY RESEARCH LAD GUIDEBOOKS · VOL. 12

Ask it *well, and again*

A measurement plan is a list of scales. A survey is what a tired nurse answers at the end of a shift, and then again three months later. This volume builds the worked study's survey and shows where the plan has to bend to fit the people answering it.

Site. https://syahmedu.github.io/cadence/

Version. 1.0.1 (2026–10–18) · build `3702b3b+edits` · 2026–10–18T15:45:22Z

Figures. Real screenshots of the live site, captured 2026–10–18 by `scripts/capture.mjs`; sample data shown in figures is labelled simulated where it is simulated.

Sources. 9 DOI-verified references, numbered in order of use. Nothing in this book is invented: counts and labels are read from the site or its published data.

Status. A user guide, not documentation of record. Where the site and this book differ, the site is right — please report it (see Version history).

Type. Fraunces, Plus Jakarta Sans and IBM Plex Mono (SIL Open Font License). Laid out with Paged.js.

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01

BEFORE YOU BUILD

What participants live through

Every item you add is asked of every participant at every wave. Design the survey from their side: how long, in what order, how often, and what it asks them to share.

Collecting measures at different times is one of the main procedural remedies for common method bias: the predictor's answers are less likely to colour the outcome's when they are given weeks apart [1]. Waves also let a study speak to change, but only if the interval matches how fast the construct is expected to move [2]. A single wave is not always wrong; it suits some questions and not others [3]. What a longitudinal design always adds is burden: the same people must come back.

A SURVEY IS READY WHEN…

- [ ] Every scale in the survey answers part of the research question.
- [ ] I know how many items a participant answers per wave, and roughly how long it takes.
- [ ] The interval between waves has a reason, not just a convenient date.
- [ ] Participants know what is collected, why, and how to withdraw.
- [ ] I know how the responses will reach me after each wave.

THE WORKED EXAMPLE — CONTINUED

The study (Volumes 5–11) tests whether job autonomy buffers the link between long shifts and burnout among nurses. Volume 6 chose the measures: the **OLBI** for burnout, the **UWES-9** for engagement and the **Work Design Questionnaire's autonomy facets**. Volume 4 chose the design: two waves, resources at wave 1 and outcomes at wave 2. This volume builds that survey in Cadence.

02

BEFORE YOU BUILD

Preview the participant path

Type the constructs, pick the instruments, set the waves. The preview draws what one participant will answer, in order, before you build anything.

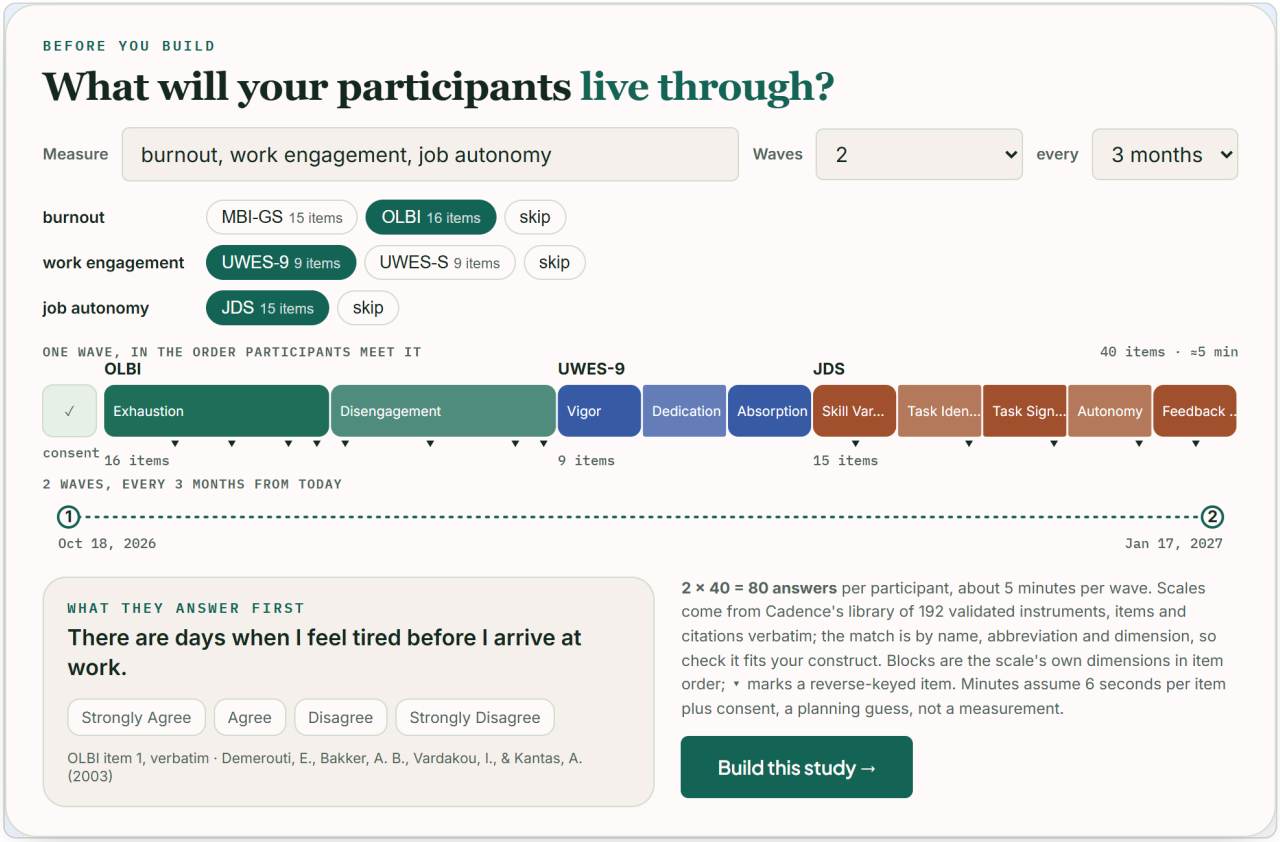

FIG 2.1 The preview for *burnout*, *work engagement*, *job autonomy*, two waves three months apart. Burnout → **OLBI** (16 items, chosen over the MBI-GS); work engagement → **UWES-9** (9); job autonomy → **JDS** (15). One wave: 40 items, about 5 minutes; 2 × 40 = 80 answers per participant. Waves on 18 October 2026 and 17 January 2027. The first item, verbatim: "There are days when I feel tired before I arrive at work."

The preview matches each construct to the library of 192 instruments by name, abbreviation and dimension, with no AI. It found the planned scales for burnout and engagement. For *job autonomy* it found only the Job Diagnostic Survey, and the path shows the problem at once: the JDS is five blocks (skill variety,

task identity, task significance, autonomy and feedback), and only one of them is autonomy. Built as matched, the survey would ask 12 items the study does not need, twice.

> **A MATCH IS A SUGGESTION**
> Matching is by words, so a match means the instrument's name or dimensions contain your term, not that it measures your construct as you defined it. The site says so under the preview. Read the blocks before you press `Build this study →`.

1. Type your constructs, separated by commas, in `Measure`.
2. Under each construct, pick the instrument you chose (or `skip`).
3. Set `Waves` and `every` (the interval).
4. Read the path: block lengths, dimensions, ▾ reverse-keyed items, total items and minutes.
5. Press `Build this study →`; the chosen scales and waves carry into the builder.

Why it looks like this

The participant path is drawn to the participant's scale, not the researcher's: each block's length is its number of items, in the order they will be answered, so a long instrument looks long. Length along a common baseline is read accurately and in proportion, which is the comparison that matters when deciding what to cut [4].

Blocks are the scale's own dimensions in item order, and ▾ marks reverse-keyed items, so the two things that most often go wrong in scoring are visible before anyone answers. Waves are laid on a line of real calendar dates from today; the spacing is the interval chosen, nothing more.

03

BUILDER

Keep only what you need

The builder takes the preview's choices and lets you cut each instrument down to the dimensions your question uses, add your own questions, and review the whole survey.

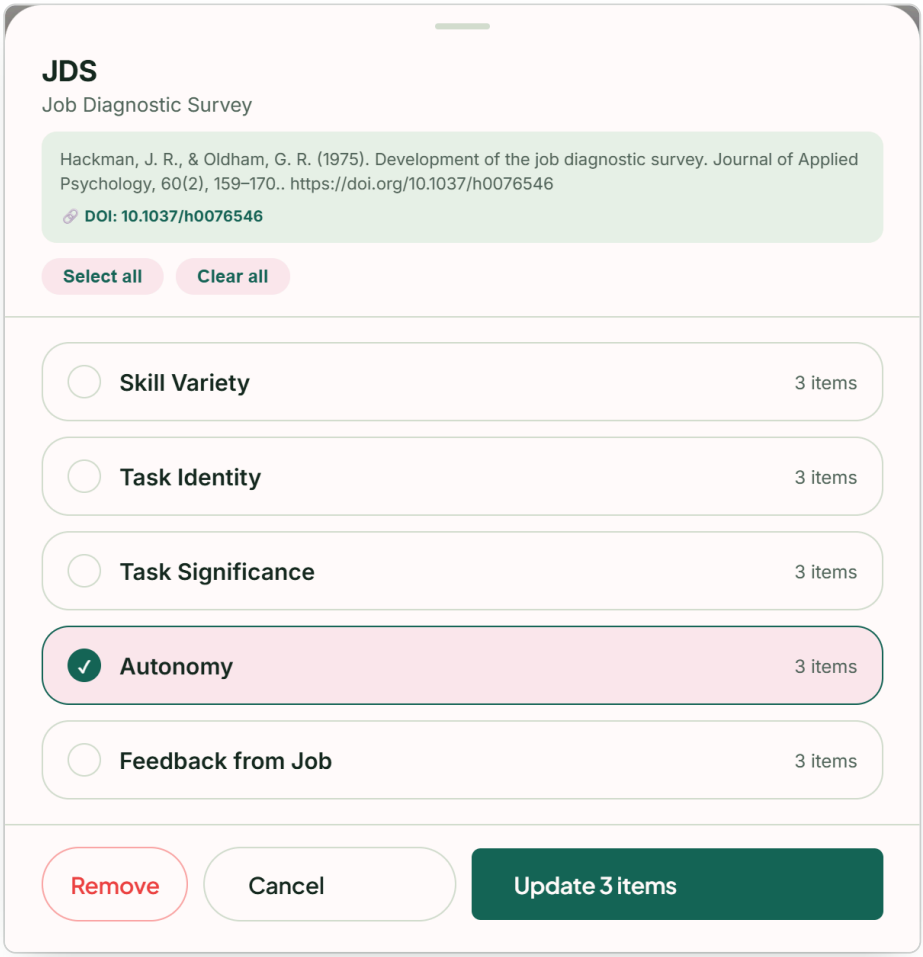

FIG 3.1 Tapping the JDS card opens its dimensions, with the source citation: Hackman & Oldham (1975). Only **Autonomy** (3 items) is kept; `Update 3 items` replaces the 15-item instrument with its autonomy subscale.

Cutting the JDS to its autonomy subscale [5] brings each wave from 40 items to 28. Its three items include one reverse-keyed item ("The job gives me almost no personal say in how and when the work is done."), so the subscale must be reverse-scored before it is averaged.

WORKED EXAMPLE

The plan in Volume 6 was the WDQ's autonomy facets [6]. The WDQ is a metadata-only entry in the scale library: its items are not reproduced, so Cadence cannot pre-load them. The study has two honest options. It can obtain the WDQ items from the source and add them as custom questions, citing the source. Or it can use the JDS autonomy subscale that the library does hold, and report the change of measure and why. What it must not do is switch instruments silently.

The design also needs **shift length**, which Volume 4 planned to take from rosters. Cadence records responses anonymously under a random code, so a roster cannot be matched to a participant without a linking plan approved by the ethics committee. The alternative is to ask shift length directly, as a custom `Number` question, and accept that it is self-reported.

1. In `Choose Scales`, tap a selected card to open its dimensions; keep only those you need.
2. In `Add Custom Questions`, add what the library does not hold: Likert (1–5 or 1–7), open text, number, multiple choice, or an attention check.
3. In `Review & Publish`, check the scale list, item total and waves.
4. Mark a scale `+ Control` if it is a covariate rather than a study variable.
5. Press `Publish Study ✓` to get the participant link, a QR code and the study code.

ATTENTION CHECKS

Attention-check questions are labelled in the export with an `attention_pass` column, so you can decide later, and report, how you treated participants who failed them. Decide the rule before you see the outcomes.

04

BEFORE THE FIRST QUESTION

Ask for consent properly

Participants see the consent statement before any question, and cannot begin until they agree to it.

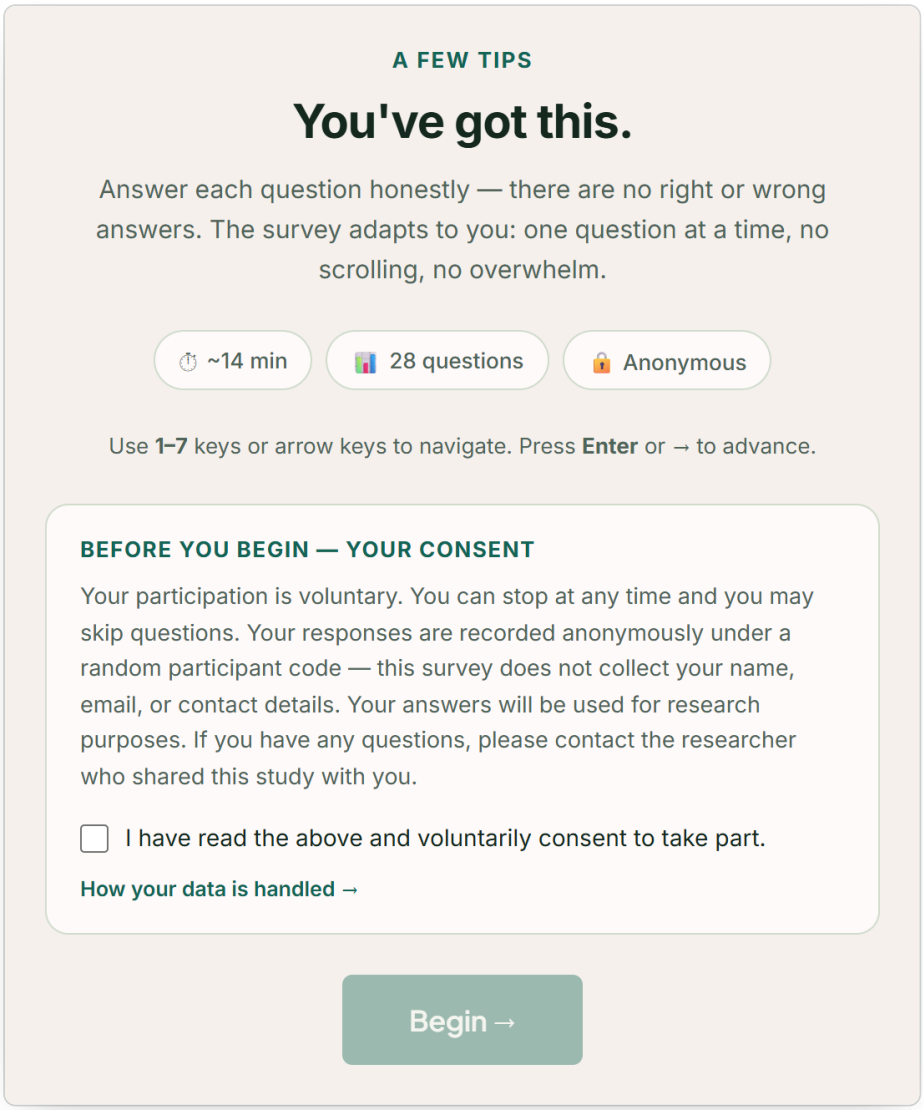

FIG 4.1 The participant's first screen for the worked study: about 14 minutes, 28 questions, anonymous. The standard consent statement is shown because the study did not set its own. `Begin →` stays disabled until the box is ticked; `How your data is handled →` explains storage.

The standard statement says participation is voluntary, questions may be skipped, responses are recorded under a random participant code, and no name, email or contact details are collected. For a real study, write your own in the builder's `Consent statement` field: who is running the study, its purpose, the ethics approval and reference number, and whom to contact. The study's ethics committee decides what it must say; the default is a floor, not a substitute.

- Each response records the time consent was given.
- After each wave, participants can download a `Consent Receipt`.
- `Delete my responses from this device` removes everything they submitted for the study from their browser. It cannot remove a copy they have already sent to you.

> **HOW LONG IT TAKES**
> The planning times disagree. The preview assumes 6 seconds per item plus consent (about 3 minutes for 28 items); the participant screen assumes 30 seconds per question (about 14 minutes). Both are stated guesses. Time two or three pilot participants, and put the measured time in the consent statement.

05

THE PARTICIPANT'S VIEW

What they answer

One question at a time, with the instrument's own wording and anchors, keyboard shortcuts, and a link to resume later.

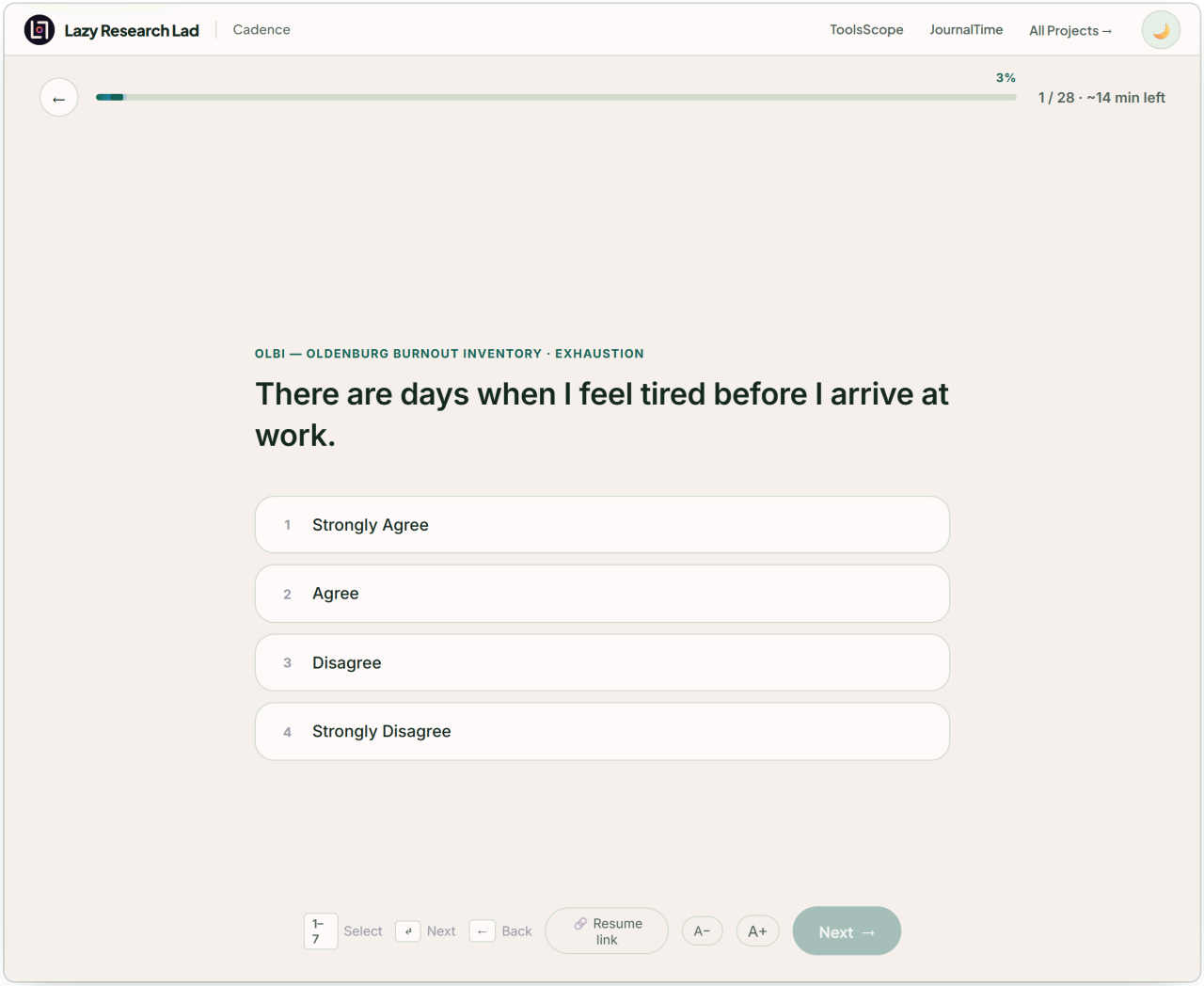

FIG 5.1 Question 1 of 28: the OLBI's first item, verbatim, with its 4-point anchors (*Strongly Agree* … *Strongly Disagree*). The header names the instrument and dimension; the bar shows progress and time left. `Resume link` saves the place.

Items appear in each instrument's own order, so the OLBI's reverse-keyed items stay mixed with the others as its authors designed. The response options are the instrument's own anchors, not a generic scale; check that the export keeps them, since the OLBI is scored 1–4 and the UWES-9 0–6.

PARTICIPANTS SEE THE LABELS

The header shows the instrument and dimension to the participant (here *Oldenburg Burnout Inventory · Exhaustion*). If your ethics committee or design prefers that participants not see construct labels, raise it before collection; it is part of what they experience.

06

COLLECT

Waves, and bringing the data home

Cadence has no server. Knowing where the responses live is part of the design, not an afterthought.

On joining, each participant gets a participant code and is told to save it: "You'll need this code to return for future waves." At wave 2 they open the same link or enter the study code, add their participant code, and the survey records the next wave under it.

STEP	WHERE THE DATA IS	WHAT HAPPENS
Participant finishes a wave	Their own browser	Responses are saved on that device; `Download My Data (JSON)` saves a copy as a file.
They send you the file	Your inbox or shared folder	Agree the route in advance, and say it in the consent statement.
You import it	Your browser	`Analytics` → `Import` merges the files; duplicates (same participant, wave and completion time) are skipped.
You export	A file on your computer	`Export Data` → Excel with three sheets (Raw Responses, Scale Means, Wave Log); `Codebook` as CSV; `Open in ToolsScope` for analysis (Volume 7).

WHERE THE RESPONSES LIVE

Responses live in browsers, not on a server. A participant who clears their browser before sending the file loses that wave; a researcher who clears theirs loses imported data unless it was exported. Export after every import, and keep the files with the study's data-management plan [7].

1. Before wave 1, tell participants how to send their file, and when wave 2 opens.
2. After each wave, import the files received and check the pre-flight report: participants, completion of every wave, missing answers.
3. Remind non-returners at wave 2 by the agreed route; their participant code is how their waves join up.

4. Export to Excel and the codebook after every import.

07

THE OBJECTIONS YOU WILL MEET

Defend it

Reviewers read the procedure section for the places where the data could have gone wrong. Answer these before they ask.

REVIEWER	YOUR ANSWER
"All measures are self-reported at the same time."	They are not: resources were measured at wave 1 and outcomes at wave 2, three months apart, a temporal separation recommended for common method bias [1]. Say what remains self-reported.
REVIEWER *"Why three months?"*	YOUR ANSWER Give the reason the interval suits the change you expect, or say plainly that it is a practical choice and treat it as a limitation [2].
REVIEWER *"How many dropped out between waves, and were they different?"*	YOUR ANSWER Report the pre-flight figures (participants at each wave, the share completing both) and compare wave-1 scores of those who did and did not return.
REVIEWER *"Your autonomy measure is not the one you proposed."*	YOUR ANSWER If the JDS subscale replaced the WDQ facets, say so, give the reason (item availability) and cite the instrument actually used [5].
REVIEWER *"The survey is long for nurses after a shift."*	YOUR ANSWER Report the measured pilot time, the items per wave (28 here) and what was cut to get there.

MODEL PARAGRAPH

Data were collected in two waves, three months apart, using an online survey that presented one item at a time. At wave 1, participants gave informed consent and completed measures of job autonomy, the autonomy subscale of the Job Diagnostic Survey [5], and of shift length. At wave 2 they completed the Oldenburg Burnout Inventory [8] and the nine-item Utrecht Work Engagement Scale [9]. Responses were linked across waves by a random participant code; no names or contact details were collected.

Model paragraph for the illustrative study, assuming it switched to the JDS autonomy subscale and asked shift length directly (Chapter 3). Cadence asks the same questions at every wave; the paragraph describes the measures the analysis uses from each wave. Report what you actually did, including any change from the proposal.

08

REFERENCE

Cadence at a glance

The screens, files and limits, for when you know what you want and need to find where it lives.

PART	USE IT TO…
Before you build	Preview the participant path: matched instruments, blocks, reverse-keyed items, waves on real dates.
Create a Study	Name, description, researcher, waves, consent statement; `✨ Generate from text` pre-fills the form using the suite's AI.
Choose Scales	192 validated instruments, items and citations verbatim; tap a card to keep only some dimensions.
Custom Questions	Likert 1–5 / 1–7, open text, number, multiple choice, attention check.
Publish	Participant link, QR code, study code.
Join a Study	Participants enter the study code and, after wave 1, their participant code.
Analytics	`📥 Import` participant files, `📈 Open in ToolsScope`, `📖 Codebook`.
Export Data	Pre-flight report and Excel (Raw Responses, Scale Means, Wave Log).

WHERE THE RECORDS COME FROM

Items, response anchors and citations come from the scale library verbatim; Cadence does not rewrite them. Minutes are stated planning guesses. The study lives in its link and the responses live in browsers, so nothing reaches a server unless you send it there. Participant links open without the research account login, by design, so respondents never have to join the research pack.

Glossary

Wave

One round of the same survey. A two-wave study asks every participant the same questions twice, at the interval you set.

Study code

The six-character code that identifies a published study. The participant link carries the whole study in the address, so no server is needed.

Participant code

A random six-character code given to each participant on first joining. They enter it to return for later waves; it links their waves without their name.

Dimension

A subscale of an instrument (for example, the OLBI's Exhaustion and Disengagement). Cadence lets you keep only some dimensions of a scale.

Reverse-keyed item

An item worded in the opposite direction to its scale, scored the other way round. Marked ▾ in the preview.

Codebook

A CSV listing every variable with its verbatim item text, scale, response anchors, reverse flag and citation.

Pre-flight report

The summary at the top of `Export Data`: submissions, participants, the share completing every wave, and missing answers.

References

Every reference was resolved by its DOI against Crossref (or DataCite) and matched on first author and year before it could be cited — 9 sources in this volume. Verification date per entry is kept in `references/verified.json`.

1 Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies.. Journal of Applied Psychology, *88*(5), 879–903. https://doi.org/10.1037/0021-9010.88.5.879

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4 Cleveland, W. S., & McGill, R. (1984). Graphical Perception: Theory, Experimentation, and Application to the Development of Graphical Methods. Journal of the American Statistical Association, *79*(387), 531–554. https://doi.org/10.1080/01621459.1984.10478080

5 Hackman, J. R., & Oldham, G. R. (1975). Development of the Job Diagnostic Survey.. Journal of Applied Psychology, *60*(2), 159–170. https://doi.org/10.1037/h0076546

6 Morgeson, F. P., & Humphrey, S. E. (2006). The Work Design Questionnaire (WDQ): Developing and validating a comprehensive measure for assessing job design and the nature of work.. Journal of Applied Psychology, *91*(6), 1321–1339. https://doi.org/10.1037/0021-9010.91.6.1321

7 Wilkinson, M. D., Dumontier, M., Aalbersberg, I. J., Appleton, G., Axton, M., Baak, A., Blomberg, N., Boiten, J. W., da Silva Santos, L. B., Bourne, P. E., Bouwman, J., Brookes, A. J., Clark, T., Crosas, M., Dillo, I., Dumon, O., Edmunds, S., Evelo, C. T., Finkers, R., … Mons, B. (2016). The FAIR Guiding Principles for scientific data management and stewardship. Scientific Data, *3*(1). https://doi.org/10.1038/sdata.2016.18

8 Demerouti, E., Bakker, A. B., Vardakou, I., & Kantas, A. (2003). The Convergent Validity of Two Burnout Instruments. European Journal of Psychological Assessment, *19*(1), 12–23. https://doi.org/10.1027//1015-5759.19.1.12

9 Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2006). The Measurement of Work Engagement With a Short Questionnaire. Educational and Psychological Measurement, *66*(4), 701–716. https://doi.org/10.1177/0013164405282471

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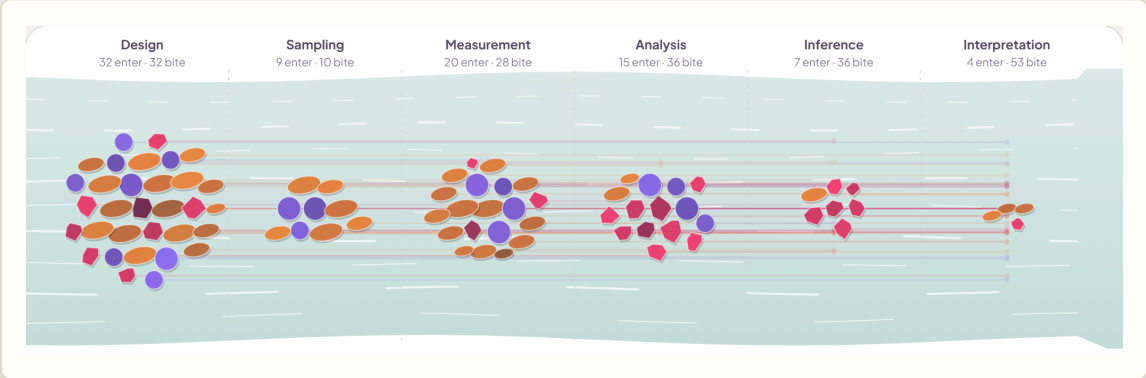
1.0.0	2026-10-18	First edition, written as a research guide on the series' worked study: the participant path, keeping only the dimensions you need, consent, the participant's view, waves and the data flow, reviewer objections and a model procedure paragraph. Figures captured 18 October 2026 from the live site; 1 new verified reference.

Errata

No errata recorded for this version.



FALLACYSCOPE

Find the trap *before the reviewer does*

FallacyScope — how to run a pre-mortem of your study against 87 paradoxes, fallacies and biases, stage by stage, and turn what you find into design changes and honest limitations.

LAZY RESEARCH LAD GUIDEBOOKS · VOL. 13

Find the trap *before the reviewer does*

Most of the ways a study goes wrong are known in advance, have names, and have a canonical paper explaining them. This volume walks the worked study through them before any data exist, while a trap can still be designed out rather than confessed.

Site. https://syahmedu.github.io/fallacyscope/

Version. 1.0.1 (2026–10–18) · build `3702b3b+edits` · 2026–10–18T15:45:22Z

Figures. Real screenshots of the live site, captured 2026–10–18 by `scripts/capture.mjs`; sample data shown in figures is labelled simulated where it is simulated.

Sources. 10 DOI-verified references, numbered in order of use. Nothing in this book is invented: counts and labels are read from the site or its published data.

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Type. Fraunces, Plus Jakarta Sans and IBM Plex Mono (SIL Open Font License). Laid out with Paged.js.

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01

BEFORE THE DATA

Why run a pre-mortem

A reviewer's objections are mostly predictable. The traps that sink empirical papers have names, mechanisms and remedies, and most can only be fixed before data collection.

Flexible choices made after seeing the data can make almost any result look significant [1], and remedies such as pre-registration work by fixing those choices in advance [2]. The same is true of design traps. Common-method bias is cheapest to prevent by separating the measurements in time or source, and hardest to repair statistically afterwards [3]. A pre-mortem asks, before the study runs: if this paper were rejected, which named trap would the reviewer cite?

FallacyScope is a field guide to 87 such traps: 19 paradoxes, 27 fallacies and 41 biases, each with a worked example from the literature, the mechanism, how to detect and avoid it, the research stages where it bites, and its canonical source. The site lists 102 hand-verified sources across the 87 entries.

A PRE-MORTEM IS DONE WHEN…

- [ ] I have checked the design against the traps that enter at the design stage.
- [ ] I know which traps my sample is exposed to, and what data would show whether they bit.
- [ ] My analysis plan is written down before I see the outcomes.
- [ ] Every trap I could not design out is named in the limitations, with its direction of bias.

THE WORKED EXAMPLE — CONTINUED

The study (Volumes 5–12) tests whether job autonomy buffers the link between long shifts and burnout among nurses, with resources measured at wave 1 and outcomes at wave 2, three months apart (Volume 12). Before the survey goes out, this volume checks it against the traps.

02

THE WHOLE FIELD AT ONCE

Read the stream

The stream lays the 87 traps along the life of a study. It shows where traps enter, and where they finally bite.

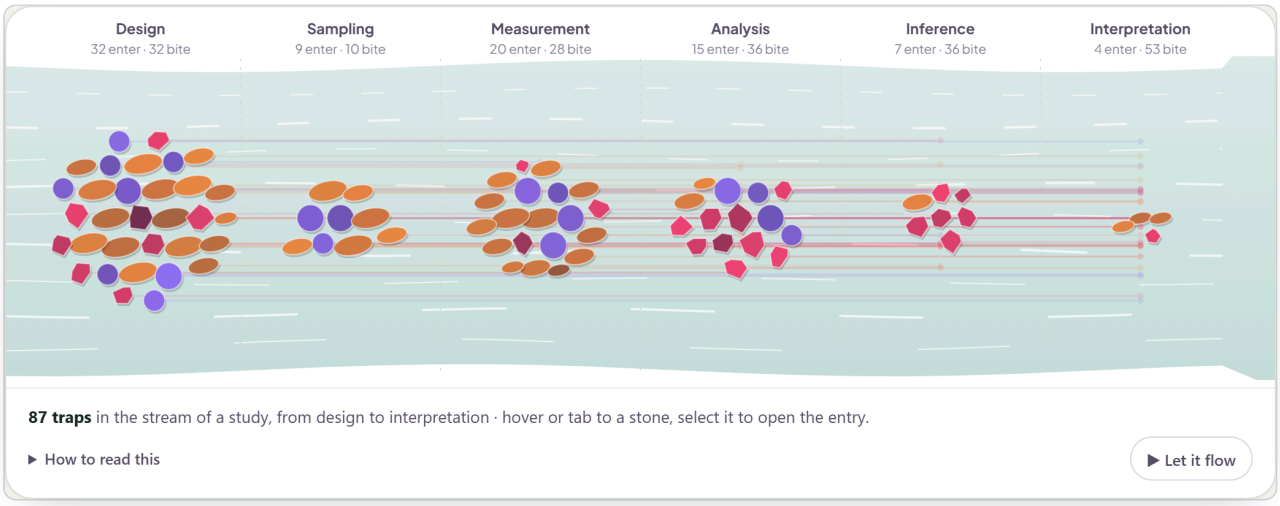


FIG 2.1 The stream: one stone per trap, dropped where it first bites, with a wake to the last stage it bites. Headers: **Design** 32 enter · 32 bite; **Sampling** 9 · 10; **Measurement** 20 · 28; **Analysis** 15 · 36; **Inference** 7 · 36; **Interpretation** 4 · 53.

Read the headers as a warning. Thirty-two traps enter at design, more than at any other stage. Only four enter at interpretation, yet 53 bite there. Most traps are planted early and discovered late: the reviewer finds them in your conclusions, but the remedy was in your design. That is why a pre-mortem starts at the left.

1. Hover or tab to a stone to light its wake; select it to open the entry.
2. Read the header counts: where traps enter, and where they bite.
3. Open `How to read this` for the encodings.
4. With reduced motion on, press `▶ Let it flow` to see the stream move.

Why it looks like this

The stream puts each trap at the stage where it first bites, so horizontal position, the most accurately read channel, carries the one thing the reader needs: where in a study it enters [4]. Its wake runs to the last stage it bites, which turns a list of stages into a length.

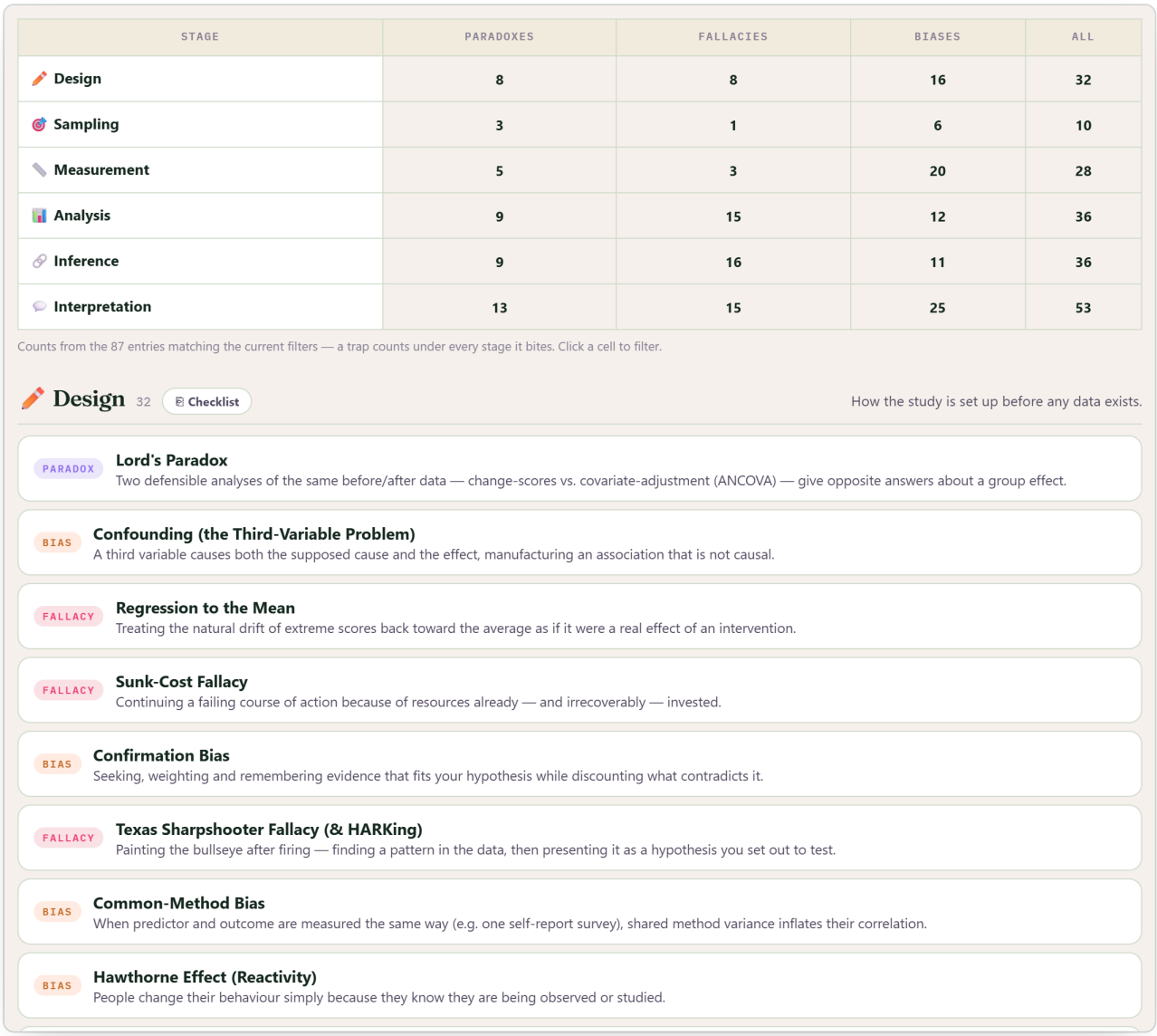
Type is shown twice, by shape and by colour (round paradoxes, angular fallacies, flat biases), so it survives printing in grey and colour-blind viewing; redundant encoding costs nothing when the channel is otherwise unused [5]. Size shows how many stages a trap bites, and weathering the age of its canonical source. The site says plainly that stacking and the water are layout, not data.

03

BY RESEARCH STAGE

Walk the study, stage by stage

The stage view turns the stream into a checklist. Start with design, and ask of each entry: could this happen in my study?



STAGE	PARADOXES	FALLACIES	BIASES	ALL
Design	8	8	16	32
Sampling	3	1	6	10
Measurement	5	3	20	28
Analysis	9	15	12	36
Inference	9	16	11	36
Interpretation	13	15	25	53

FIG 3.1 By research stage: the matrix of traps by stage and type (Design 8 paradoxes, 8 fallacies, 16 biases; 32 in all), then the Design list, with Checklist to copy it. The first entries: Lord's Paradox, Confounding, Regression to the Mean, Sunk-Cost Fallacy, Confirmation Bias, Texas Sharpshooter (& HARKing), Common-Method Bias, Hawthorne Effect.

Most entries will not apply. The work is to find the few that do, and to decide for each whether to design it out, measure it, or report it. For the worked study, the pre-mortem comes down to this table.

STAGE	TRAP (FALLACYSCOPE ENTRY)	IN THIS STUDY	DECISION
Design	Common-Method Bias	All measures are nurses' self-reports.	Designed down: resources at wave 1, outcomes at wave 2 [3].
Design	Cross-Sectional Mediation Fallacy	The study tests moderation, not mediation, but its JD-R account is a process.	Do not claim a process from two waves; describe associations [6].
Design	Regression to the Mean	Wards are not selected on extreme burnout.	Keep it that way; if they were, change from wave 1 would mislead.
Sampling	Survivorship Bias	Nurses who burned out and left are not in the sample.	Report leavers during the study; see Chapter 5.

Sampling	Nonresponse Bias	Some wave-1 participants will not return.	Compare returners and non-returners on wave-1 scores [7].
Sampling	Range Restriction	Staying nurses may have a narrower range of burnout.	Report the spread; expect attenuated associations [8].
Analysis	Garden of Forking Paths	Many choices: covariates, exclusions, how to probe the interaction.	Pre-register the analysis plan (Volume 4) [9,2].
Inference	Correlation ≠ Causation	Two waves of observational data.	Write "associated with", not "reduces" (Volume 7).

> **THE COUNTS, AND THE JUDGEMENT**
>
> A trap counts under every stage it bites, so the stage totals add up to more than 87. The table above is one study's judgement, not the site's: FallacyScope lists the traps; deciding which apply is the researcher's work.

04

ONE TRAP, IN FULL

Read an entry

Each entry has the same anatomy: the trap in a sentence, a worked example from the literature, why it happens, how to detect and avoid it, where it bites, and its sources.

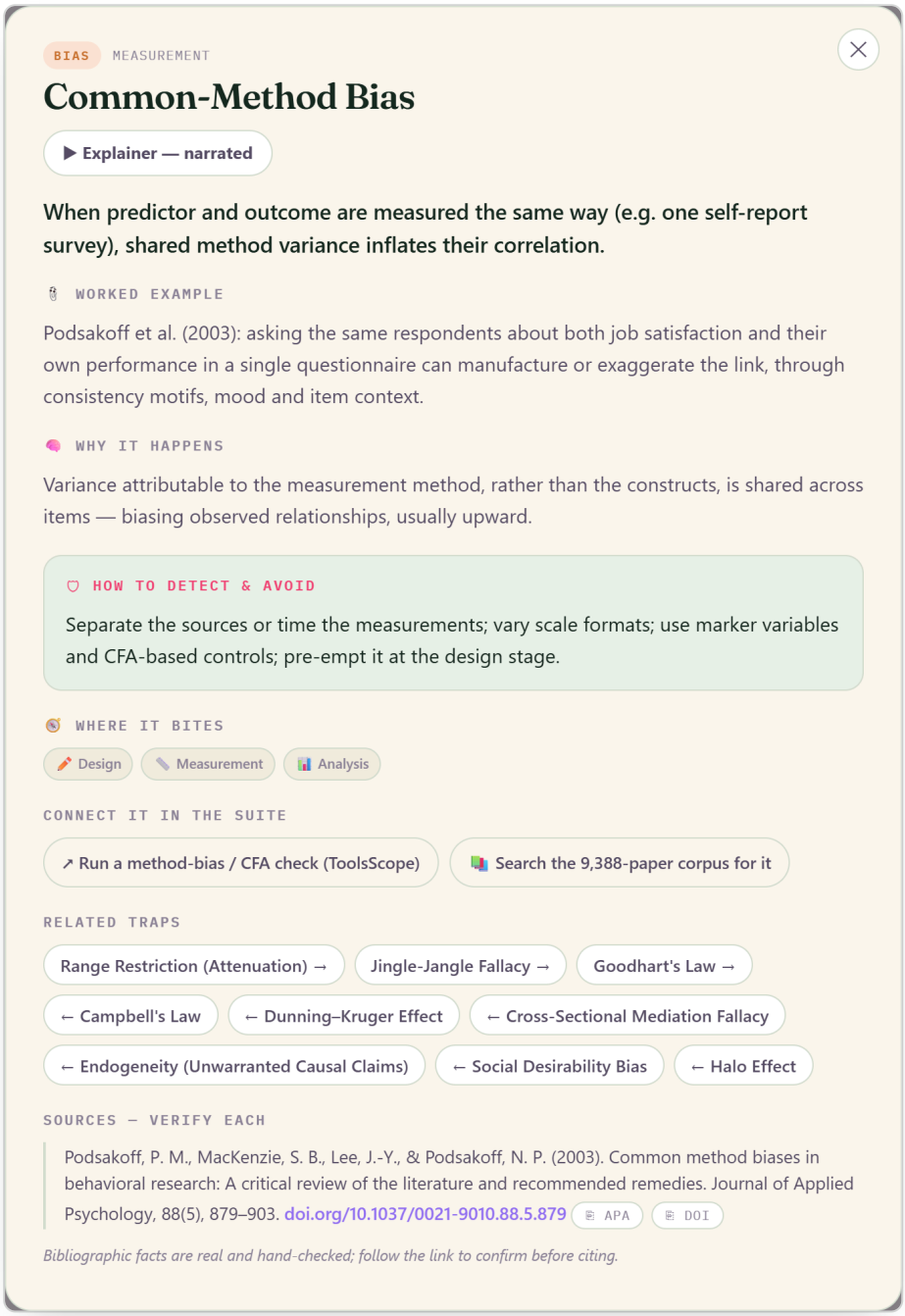


FIG 4.1 The entry for **Common-Method Bias**: the trap, a worked example from Podsakoff et al. (2003), why it happens, how to detect and avoid it ("Separate the sources or time the measurements; vary scale formats; use marker variables and CFA-based controls; pre-empt it at the design stage."), the stages it bites, suite links, related traps and the source with its DOI.

The *How to detect & avoid* box is the part to act on. The worked study already separates the measurements in time. It can also vary formats, since the OLBI uses four agreement points and the UWES-9 a seven-point frequency scale, and it can check the factor structure, which ToolsScope runs (Volume 7). The related traps are the next entries to read: Social Desirability Bias and the Cross-Sectional Mediation Fallacy both apply to a self-report survey.

1. Open an entry from the stream, the list or a search.
2. Read the worked example, then the *How to detect & avoid* box.

3. Follow `Connect it in the suite` to act on it (for example, a CFA check in ToolsScope).
4. Read the related traps; arrows show which way the link runs.
5. Copy the source with `APA` or `DOI`, and open the DOI before citing it.
6. `▶ Explainer — narrated` walks through the entry's own text, aloud.

CITE THE SOURCE, NOT THE SUMMARY

Every entry names a real source, and every DOI shown was checked by hand. The entry is still a summary. Cite the source you have read, not the field guide, and read it at the page you cite.

05

SAMPLING TRAPS

Who is missing from the sample

A workforce study samples the people still at work. For burnout, that is exactly the problem.

FIG 5.1 The entry for **Survivorship Bias**: "Drawing conclusions only from the cases that survived a selection process, while the ones that dropped out are silently missing." Its worked example is Wald's analysis of returning aircraft (Mangel & Samaniego, 1984); its remedy: "Reconstruct the full at-risk set including dropouts and failures."

The aircraft example [10] maps onto the study directly. Nurses whose burnout drove them to leave are not on the ward when the survey arrives. The sample is conditioned on staying, which plausibly narrows the range of burnout and weakens the associations the study can see; the Range Restriction entry describes that

mechanism [8]. Attrition between waves adds a second filter: those who do not return at wave 2 may differ from those who do, and a response rate alone does not say whether they do [7].

WORKED EXAMPLE

The study cannot survey nurses who have already left. It can reconstruct part of the at-risk set: ask the hospitals for the number of nurses who left the participating wards during the study, report it beside the sample, and compare wave-1 scores of those who returned at wave 2 with those who did not. If the non-returners were more exhausted at wave 1, the wave-2 results understate burnout, and the paper should say so.

06

THE OBJECTIONS YOU WILL MEET

Defend it

A pre-mortem pays off in the review. These are the objections the table in Chapter 3 prepares you for.

REVIEWER	YOUR ANSWER
"Self-reported predictors and outcomes inflate the association."	Resources were measured at wave 1 and outcomes at wave 2, a recommended procedural remedy [3]; the scales use different response formats; a confirmatory factor analysis is reported.
REVIEWER *"Burned-out nurses had already left."*	YOUR ANSWER Agreed, and reported: the number of leavers from participating wards during the study, and a comparison of wave-1 scores between returners and non-returners. The likely direction is attenuation, so the estimates are conservative.
REVIEWER *"How many analyses did you try?"*	YOUR ANSWER One, specified before data collection and pre-registered; anything else is labelled exploratory [2,9].
REVIEWER *"This shows autonomy reduces burnout."*	YOUR ANSWER It does not, and the paper does not claim it. Two waves of observational data show an association consistent with the JD-R account [6].

MODEL PARAGRAPH

Several limitations follow from the design. Although predictors and outcomes were measured three months apart to reduce common method variance [3], all study variables except shift length were self-reported. The sample is restricted to nurses still employed on the participating wards; nurses who had left, possibly because of burnout, could not be surveyed, which is likely to have narrowed the range of burnout and attenuated the associations observed [8]. We report the number of leavers during the study and compare wave-1 scores of participants who did and did not complete wave 2 [7]. Finally, two waves of observational data cannot establish that autonomy causes weaker associations between shift length and burnout [6].

Model paragraph for the illustrative study. Each limitation names its mechanism and its likely direction of bias, which a reviewer can check; adapt it to what your data actually show.

07

REFERENCE

FallacyScope at a glance

The views and entry fields, for when you know what you want and need to find where it lives.

PART	USE IT TO…
Stream	See all 87 traps by the stage where they enter and the stages they bite; select a stone to open it.
Browse	Filter by type (paradox, fallacy, bias) and family (statistical, causal, selection, measurement, levels, reasoning, decision, integrity, design); search by name.
By research stage	The stage × type matrix (click a cell to filter) and a list per stage, with `Checklist` to copy it as markdown.
Quiz	Test yourself: identify the trap from a scenario.
Field guide	Print the guide, or save it as a PDF.
Entry	Trap, worked example, why, how to detect and avoid, stages, suite links, related traps, sources; `▶ Explainer — narrated`.

LIBRARY	COUNT
Traps	87 (19 paradoxes, 27 fallacies, 41 biases)
Hand-verified sources	102
Research stages	6

WHERE THE ENTRIES COME FROM

Every entry names a real, hand-verified canonical source; a DOI is shown only where it was verified, and omitted rather than guessed. Worked examples come from the cited literature, not invented cases. ResearchFlow shows the same 87 entries, verbatim, under its stages.

Glossary

Paradox

A result that is counter-intuitive but real, such as a trend reversing when groups are pooled.

Fallacy

An error of inference: a conclusion that does not follow from the evidence.

Bias

A systematic distortion in data, measurement or judgement.

Research stage

One of six stretches of a study: design, sampling, measurement, analysis, inference, interpretation. A trap is listed under every stage it bites.

Enter · bite

In the stream: the traps that first appear in a stage, and all the traps that affect it.

Pre-mortem

Imagining, before the study runs, that it has failed or been rejected, and listing why; here, checking the design against named traps.

References

Every reference was resolved by its DOI against Crossref (or DataCite) and matched on first author and year before it could be cited — 10 sources in this volume. Verification date per entry is kept in `references/verified.json`.

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Version history & errata

This guidebook is version-controlled. Corrections are made in its source, the version number is raised, and the change is recorded here and in `CHANGELOG.md`. Report an error with the page number and the version printed in the footer.

VERSION	DATE	CHANGES
1.0.1	2026-10-18	Series back to 13 volumes (Throughline CS dropped: a separate product, not one of the Lazy Research Lad sites): covers and title pages now read 'of 13'. Text and figures unchanged.
1.0.0	2026-10-18	First edition, written as a research guide on the series' worked study: reading the stream, a pre-mortem by research stage, reading an entry, sampling traps for a workforce study, analysis traps, reviewer objections and a model limitations paragraph. Figures captured 18 October 2026 from the live site; 5 new verified references.

Errata

No errata recorded for this version.