

RED

REviewing Design

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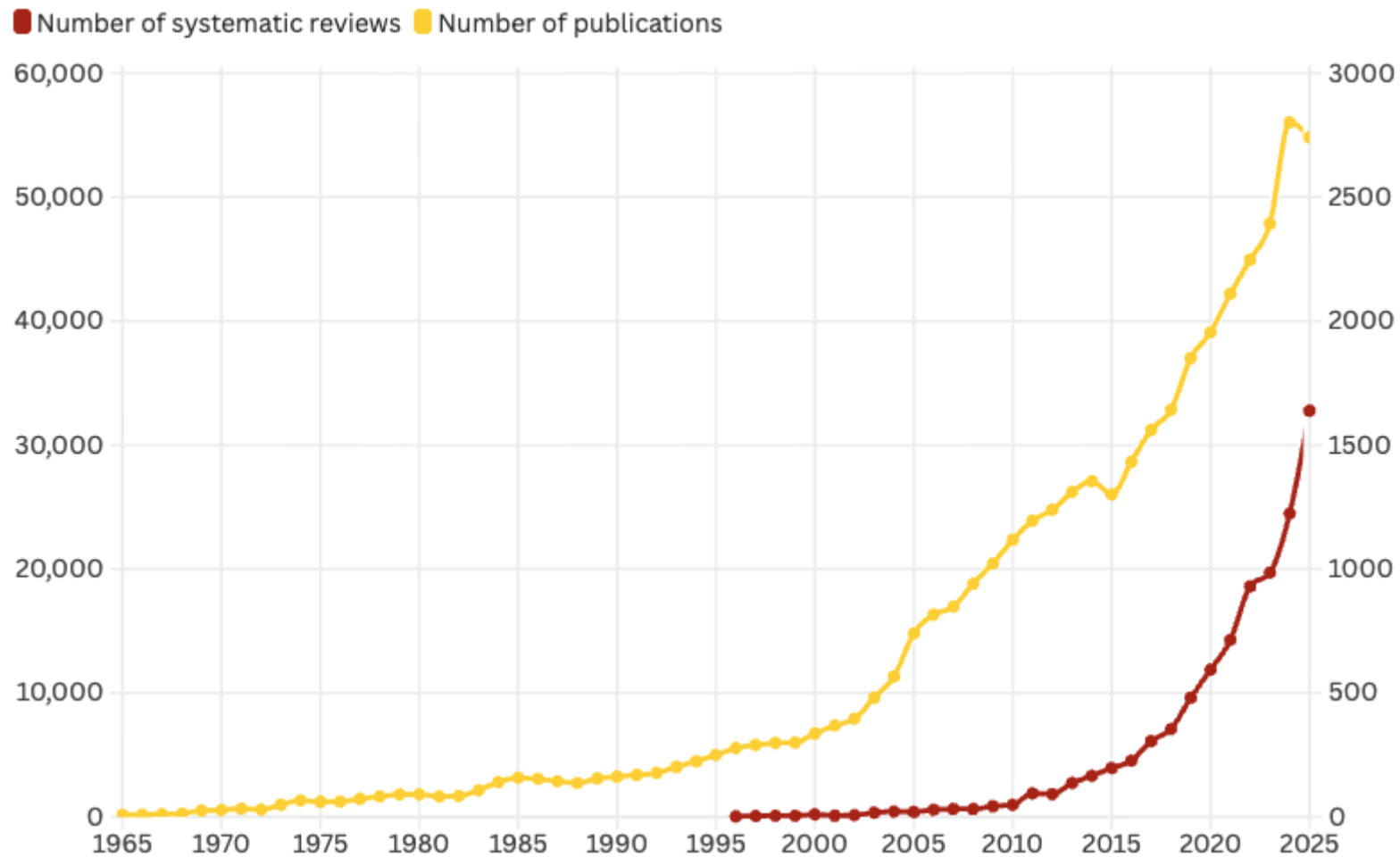
The aim:

Investigating possibilities of systematic review frameworks or practices adapted for design disciplines.

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Why?

Unparalleled increase in the number of publications requires sound evidence synthesis and systematic reviews have become the gold standard for synthesizing evidence in various disciplines including design.



Yellow: Evolution of Publications in Design since 1965 (Bruce Archer's seminal publication) on Scopus (Search String : TITLE-ABS((([Design Disciplines*] OR [Design Approaches*]))

Red: Evolution of Publications of Systematic Reviews in Design since 1965 on Scopus (Search String : TITLE-ABS((systematic w/3 review) AND ([Design Disciplines*] OR [Design Approaches*]))

RED REviewing Design

**Research
Question**

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**Research
Question**

**Search for
studies**

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**Research
Question**

**Search for
studies**

**Formulating
Keywords**

RED REviewing Design

**Research
Question**

**Search for
studies**

Formulating
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Databases

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**Research
Question**

**Search for
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Formulating
Keywords

Databases

Snowballing

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**Research
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Screening

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Inclusion/
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Inclusion/
Exclusion

Databases

Assessing the
Quality

Snowballing

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**Research
Question**

**Search for
studies**

Screening

**Data extraction
& analysis
/ synthesis**

Formulating
Keywords

Inclusion/
Exclusion

Databases

Assessing the
Quality

Snowballing

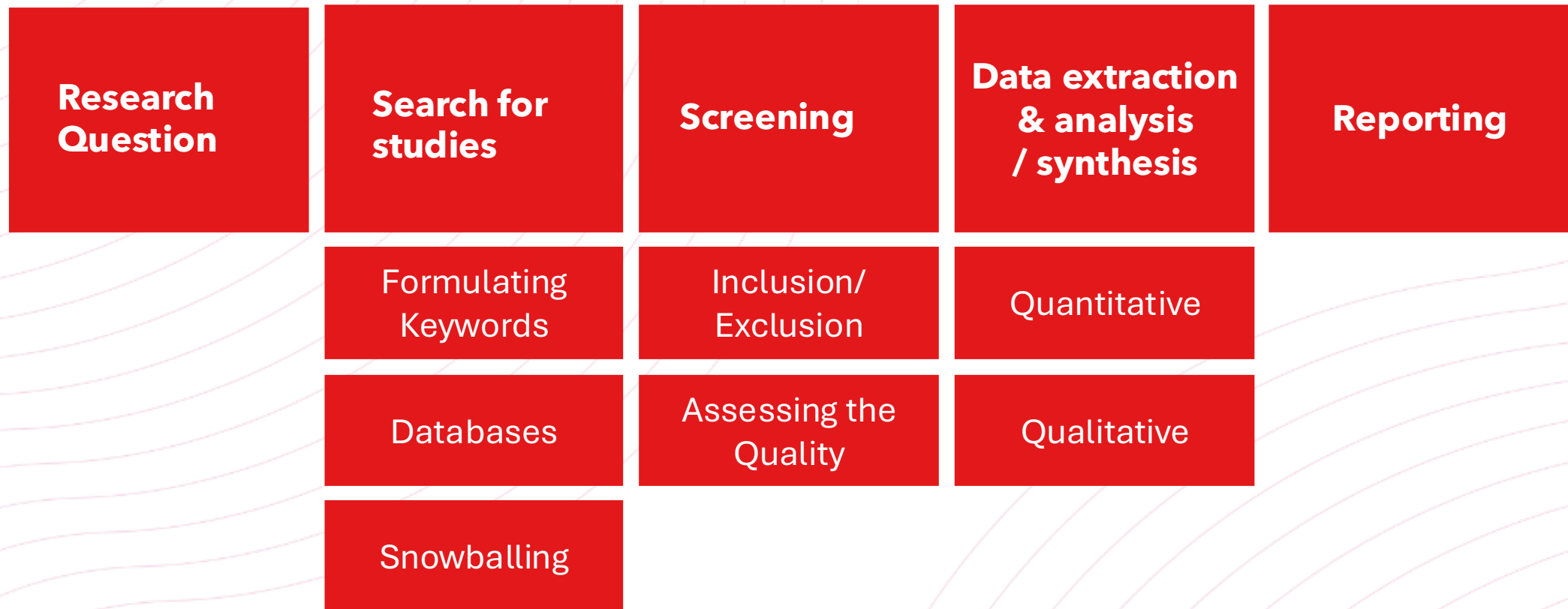
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| | Full Name of the Framework | Statement Paper | Primarily Intended Field |
|--------------------------------------|--|---|---------------------------------|
| Systematic Reviews Guidelines | | | |
| PRISMA | Preferred Reporting Items for Systematic reviews and Meta-Analyses | Moher et al. (2009) Page et al. (2020) | Healthcare |
| JB | JB Manual for Evidence Synthesis | Aromataris et al. (2024) | Healthcare |
| Cochrane Reviews | | Higgins et al. (2024) | Healthcare |
| SWiM | Synthesis Without Meta-Analysis | Campbell et al. (2020) | Healthcare |
| QUOROM | QUality Of Reporting Of Meta-analyses | Moher et al. (1999) | Healthcare |
| Repository of SR Protocol | | | |
| PROSPERO | | Booth et al. (2012) | Healthcare |

RED R

Reviewing Design

Tools for formulating Research Questions

| | | | |
|--|---|--------------------------|------------|
| PICO (also has variants such as PECO, PICOT, PICOS, PICOC) | Population, Intervention, Comparison, Outcome (exposure instead of intervention in PECO) (+timeframe in PICOT) (+study type in PICOS) (+context in PICOC) | Richardson et al. (1995) | Healthcare |
| SPICE | Setting, Perspective, Intervention, Comparison, Evaluation | Booth, A (2004) | Healthcare |
| SPIDER | (Sample, Phenomenon of Interest, Design, Evaluation, Research type) | (Cooke et al., 2012) | Healthcare |

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But...

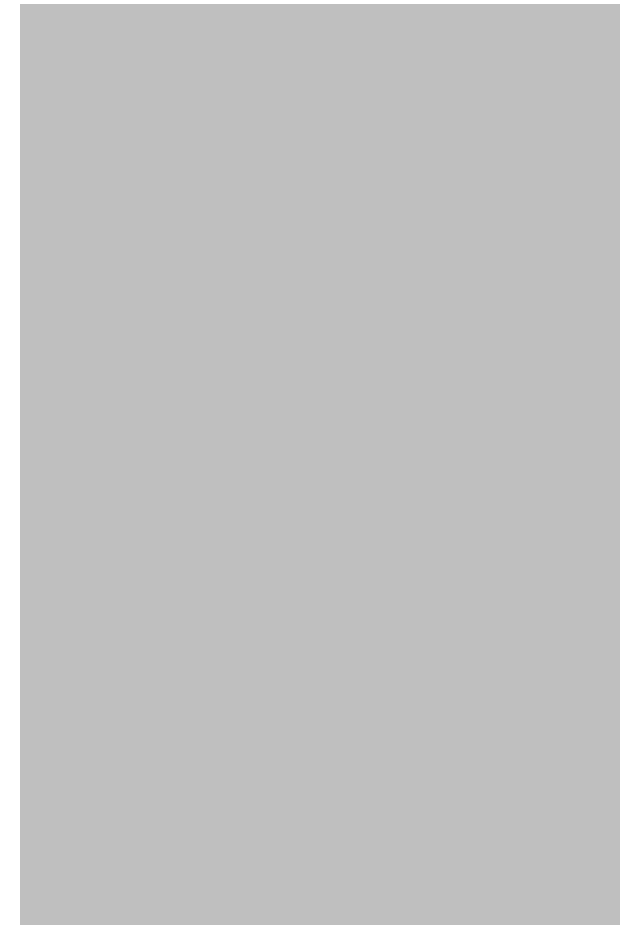
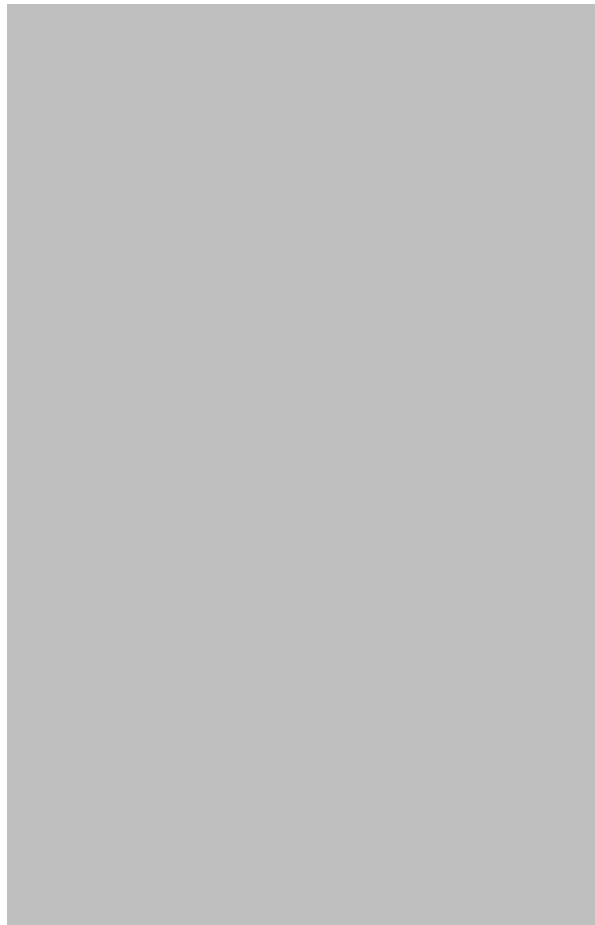
Are current frameworks or practices adapted to the specificities of design research ?

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WP1

Systematic review of SR practices in DR

AIM = Establish a baseline knowledge of used frameworks, frequent struggles, and methodological adaptations design researchers have reported in their works.



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“A key challenge in this context is that the topic of creativity is extremely broad and systematic reviews tend to be applied in technical areas where it is easy to quantify different characteristics. For example, the Problem, Intervention, Comparison, Outcome (PICO) framework [36] [...] has been adapted as shown in Table 1 to represent aspects relevant for the present study, such as key population, intervention, context, and outcome issues.” (Casakin and Wodehouse 2021, p.2)

| Framework Component | Definition | Description |
|---------------------|----------------------|--|
| Population | Students | Activity undertaken by students as part of their architectural education. |
| Intervention | Design activity | Focus on the earlier stage of the design process where methods, tools, models or frameworks support ideation. |
| Context | Architectural studio | Activity by both architectural students and teachers in the studio setting. |
| Outcome | Creativity issues | The potential impact of creativity that can be considered in many ways, e.g., confidence of participants, rated quality of concepts. |

(Casakin, H., & Wodehouse, A. (2021). A Systematic Review of Design Creativity in the Architectural Design Studio. *Buildings*, 11(1), 31. <https://doi.org/10.3390/buildings11010031>)

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| | n | % |
|------------|-----|-------|
| Cochrane | 19 | 3,32 |
| JBI | 9 | 1,57 |
| Kitchenham | 47 | 8,2 |
| PRISMA | 337 | 58,81 |
| QUOROM | 1 | 0,17 |
| SWIM | 0 | 0 |
| PICO | 23 | 4,01 |
| PECO | 0 | 0 |
| PICOC | 7 | 1,22 |
| PICOS | 10 | 1,75 |
| PICOT | 0 | 0 |
| SPICE | 0 | 0 |
| SPIDER | 3 | 0,52 |
| PROSPERO | 24 | 4,19 |
| OSF | 2 | 0,35 |

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| | n | % |
|------------|-----|-------|
| Cochrane | 19 | 3,32 |
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| SPIDER | 3 | 0,52 |
| PROSPERO | 24 | 4,19 |
| OSF | 2 | 0,35 |

| Did they mention... | n | % |
|------------------------------------|----|-------|
| Adaptations | 72 | 10,96 |
| Struggles | 71 | 10,81 |
| New framework / recommendations | 20 | 3,04 |

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Why do we need systematic reviews in Design Research?

What counts as evidence in Design Research and where can we find it?

How to analyze and synthesize design evidence?

What are (or could be) the challenges of conducting a systematic review in Design?

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WP1

Systematic review of SR practices in DR

AIM = Establish a baseline knowledge of used frameworks, frequent struggles, and methodological adaptations design researchers have reported in their works.

WP2

Workshop

AIM = Open together the possibilities of what can evidence synthesis be in design research with various profiles



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WP1 Systematic review of SR practices in DR

AIM = Establish a baseline knowledge of used frameworks, frequent struggles, and methodological adaptations design researchers have reported in their works.

WP2 Workshop

AIM = Open together the possibilities of what can evidence synthesis be in design research with various profiles

WP3 Synthesis + Publication

AIM = Discuss results from WP1 + WP2 and transform it into actionable methods.

You're very
welcome to join us



KEYNOTES

13:00 | AI-assisted systematic reviews: accelerating evidence synthesis

by Prof. Dr. Jeroen Lakerveld, Amsterdam UMC

13:30 | Systematic reviews and other forms of evidence synthesis in design research

*by Assoc Prof. Dr. Guillaume Lamé,
Université Paris Saclay*

14:00 | Tactics for including artistic and design related research as evidence in systematic reviews

by Prof. Dr. Karin Hannes, KU Leuven

14:30 | World Café

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A 'World Café' format

- A participatory methodology based on collective intelligence
- A collaborative atmosphere inspired by the spirit of a 'coffee break'
- An opportunity for everyone to explore all the suggested questions
- A joint wrap-up to share the ideas from the afternoon



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A participatory mindset



I listen attentively.

*I respect the point of
view of others, their
convictions, and their
ideas.*



*I do not judge what is
said.*

I respect confidentiality.

I feel free to speak.

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A participatory mindset



*I give plenty of ideas,
even if they seem crazy
to me.*



*I build on ideas.
Taking up an idea [from
someone else] is not
cheating.*

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A participatory mindset



I feel free during the session.

I can eat, drink, and move around.



I put my phone on silent mode.

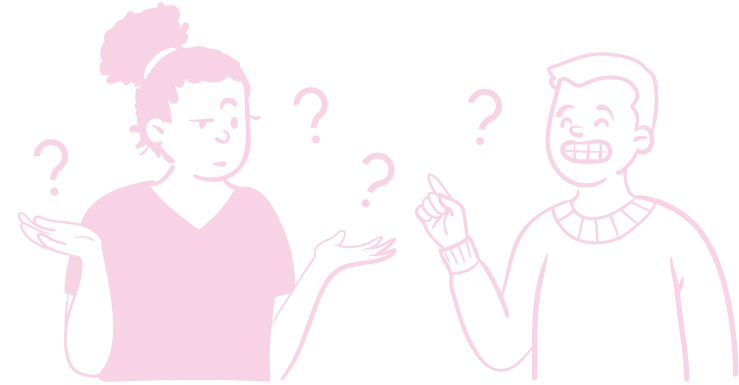
I respect others when they are speaking.

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4 questions

- A - Why do we need systematic reviews in Design Research?
- B - What counts as evidence in Design Research and where can we find it?
- C - How to analyze and synthesize design evidence?
- D - What are (or could be) the challenges of conducting a systematic review in Design?



Question |

1 2
3 4

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Organization

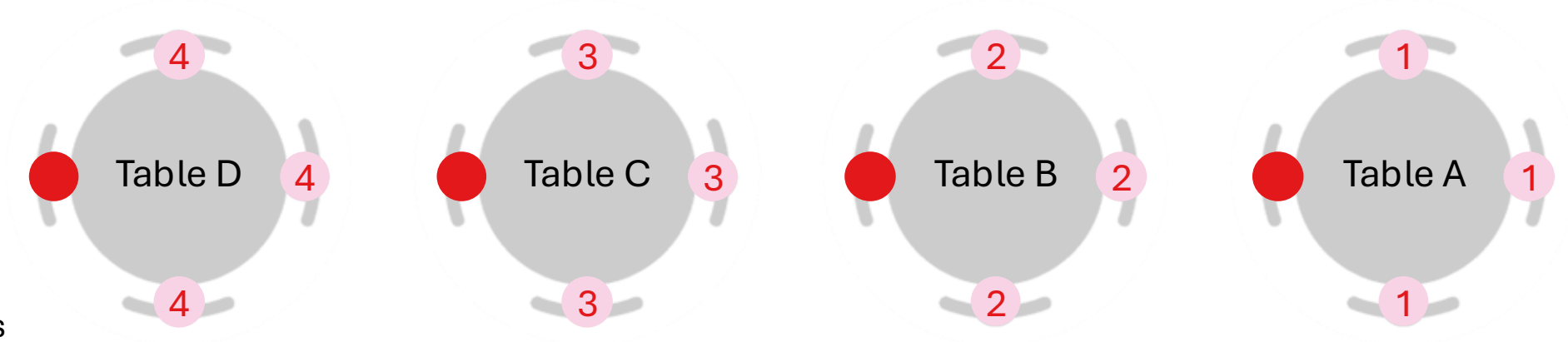
4 rounds (without a break) of decreasing duration 45' - 30' - 30' - 15'
4 groups of 6 to 8 participants (see the number on your badge)

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Organization

4 rounds (without a break) of decreasing duration 45' - 30' - 30' - 15'
4 groups of 6 to 8 participants (see the number on your badge)

ROUND 2



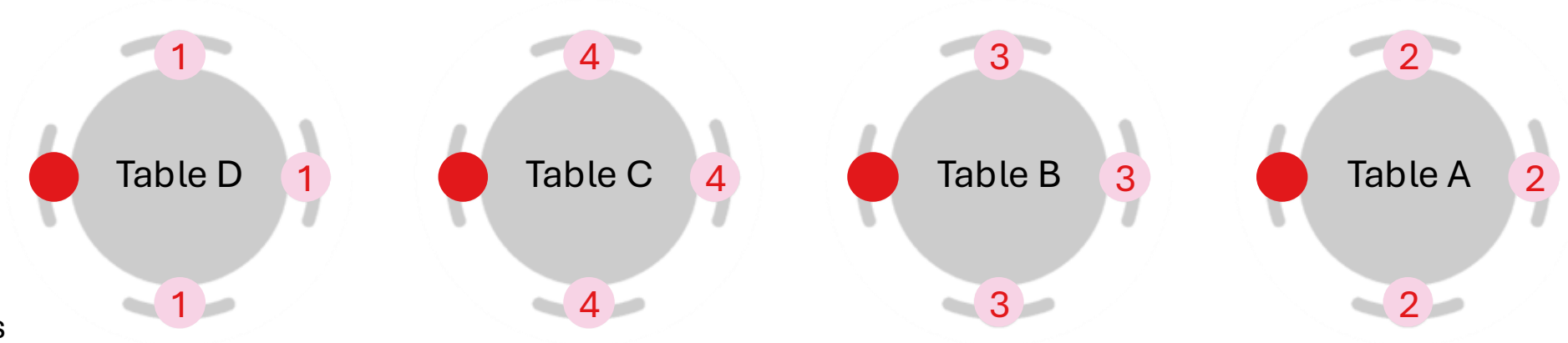
- Facilitators
- Participants

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Organization

4 rounds (without a break) of decreasing duration 45' - 30' - 30' - 15'
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ROUND 3



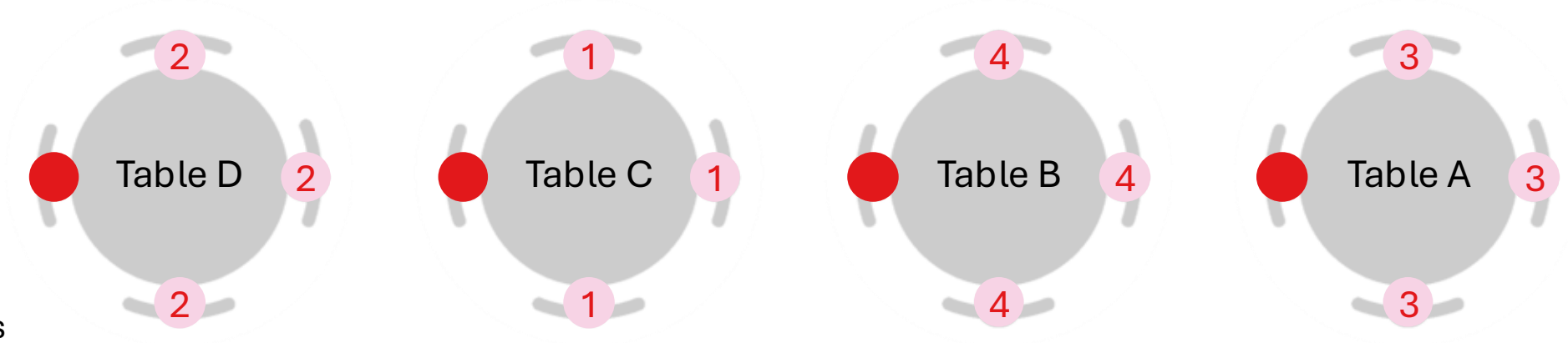
- Facilitators
- Participants

RED RReviewing Design

Organization

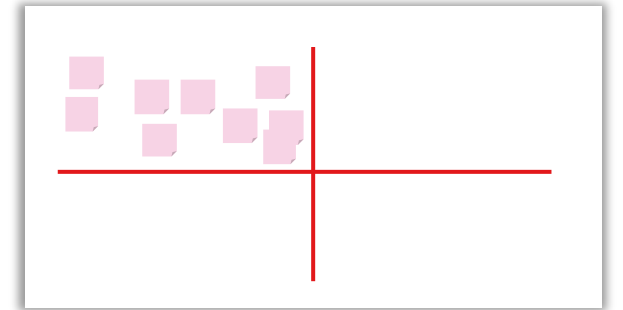
4 rounds (without a break) of decreasing duration 45' - 30' - 30' - 15'
4 groups of 6 to 8 participants (see the number on your badge)

ROUND 4



- Facilitators
- Participants

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Tasks during ROUND 1

15': Take turns answering three questions to **break the ice**:

Who I am

Why I'm here

What interests me about today's topic

5': **Write** down your ideas **individually** on sticky notes

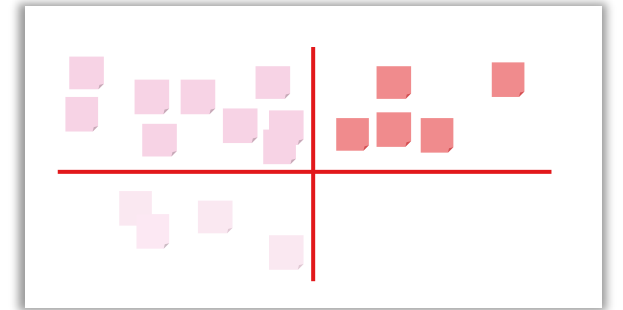
(one idea per sticky note, in uppercase letters)

20': **Go round** the table, with one participant at a time sharing an idea

(one at a time, for as many turns as necessary)

5': **Group** similar ideas together and **check** that the information on the template is complete

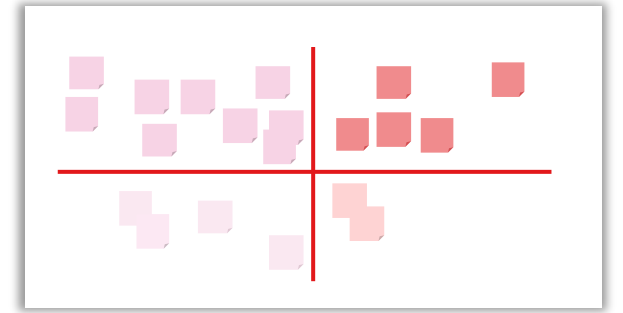
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Tasks during ROUNDS 2 and 3

- 5': **Read** through the notes already suggested by the other group(s)
- 5': **Write** down your ideas **individually** on sticky notes
- 15': **Go round** the table, with one participant at a time sharing an idea
- 5': **Group** similar ideas together and **check** that the information on the template is complete

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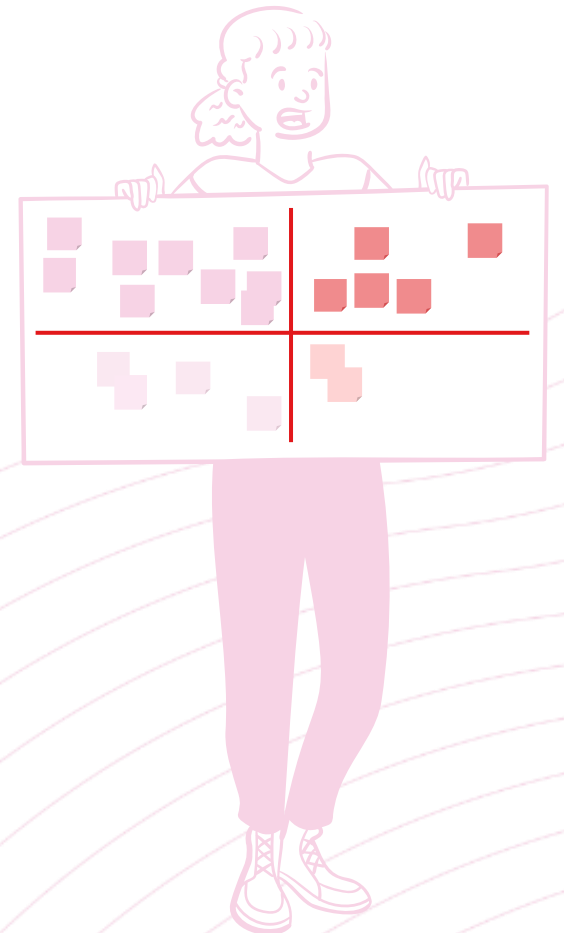
Tasks during ROUND 4

- 5': **Read** through the notes already suggested by the other group(s)
- 5': **Go round** the table, with one participant at a time sharing an idea
- 5': **Group** similar ideas together and **check** that the information on the template is complete

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Wrap-up session

Summary of the contributions by the facilitators
3' maximum by table
Audio recording



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ROUND 1

Group 2 → Table B

Group 3 → Table C

Group 4 → Table D

Check your badge to see your group number

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ICE BREAKER

15 minutes

Take turns answering **three questions**:

1. Who I am
2. Why I'm here
3. What interests me about today's topic

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ROUND 1

30 minutes

Write down your ideas **individually** on sticky notes
(one idea per sticky note, in uppercase letters)

Go round the table, with one participant at a time sharing an idea
(one at a time, for as many turns as necessary)

Group similar ideas together and **check** that information is complete

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ROUND 2

Group 2 → Table D
Group 3 → Table B
Group 4 → Table C

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ROUND 2

30 minutes

Read through the notes already suggested by the other group(s)

Write down your ideas **individually** on sticky notes

Go round the table, with one participant at a time sharing an idea

Group similar ideas together and **check** that information is complete

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ROUND 3

Group 2 → Table C
Group 3 → Table D
Group 4 → Table B

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ROUND 3

30 minutes

Read through the notes already suggested by the other group(s)

Write down your ideas **individually** on sticky notes

Go round the table, with one participant at a time sharing an idea

Group similar ideas together and **check** that information is complete

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WRAP-UP

3 minutes for each table

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INVITATION

Let's continue this discussion together
and valorize the workshop results