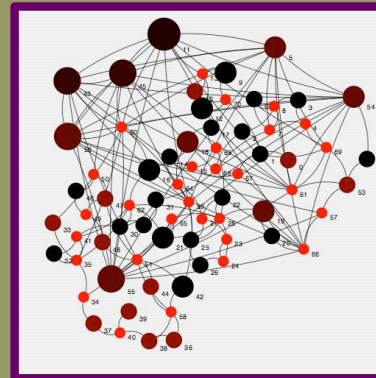




# COMP47360

## Research Practicum

Research Skills  
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# + Group Exercise

‘Lightning never strikes twice in the same place’  
(in the same storm)

RP

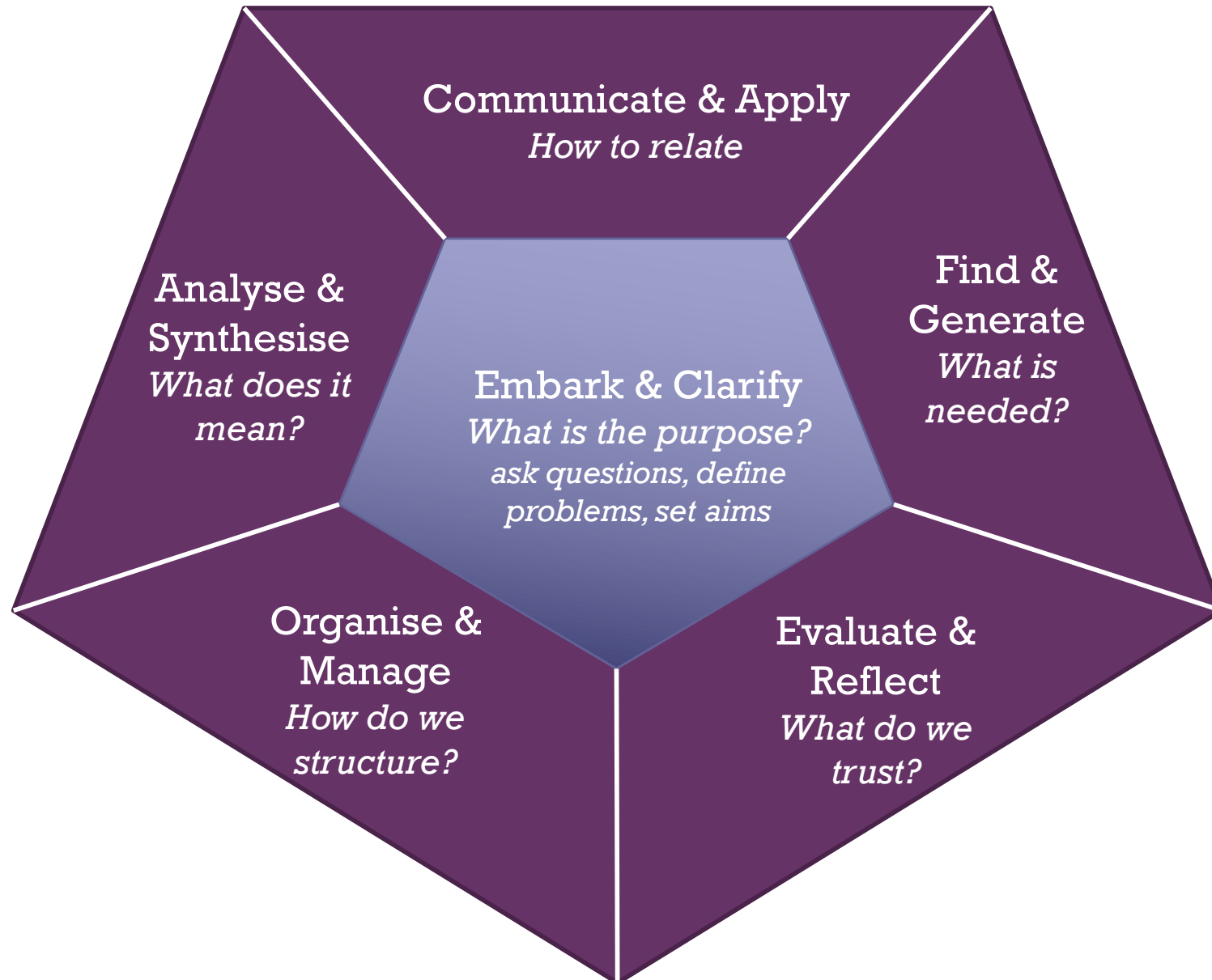
True or False?

10 minutes

RSDF	What Skills?
Embark & Clarify	Asked questions
Find & Generate	Used Google or prior knowledge
Evaluate & Reflect	Reflected on process to do analysis Considered more plausible interpretation
Organise & Manage	Wrote 2 lists
Analyse & Synthesise	Decided on answer
Communicate & Apply	Talked to each other Communicated to group

# + Research Skills Framework

RP



# + Your Project

RP

## Background research...

Determine the state of the art with respect to the project task and any innovations you may decide to do through a literature review

What is  
already  
known?

Rationale

... motivating your work

# + Consult the Literature

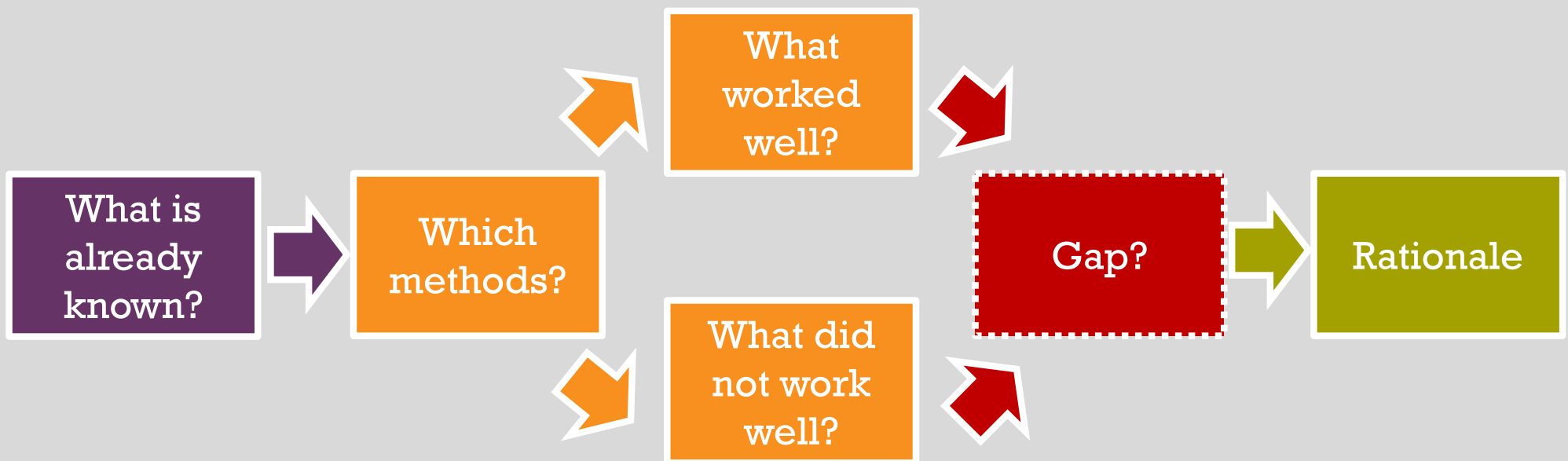
What is  
already  
known?

- Papers made available to you on the topic
- Look for research papers and scientific reports on the specific topic or a related topic
- Journals and conference papers
- Online or in the library
- NOT wikipedia
- Do not copy and paste portions of the literature into your notes
- Summarise the salient points of each paper in your notes together with the exact bibliographic reference
- You may later want to go back and find an actual quote (although this should be the exception)
- Note your own opinion on what the paper says
- Your own words demonstrate that you have understood the papers

# + Your Project

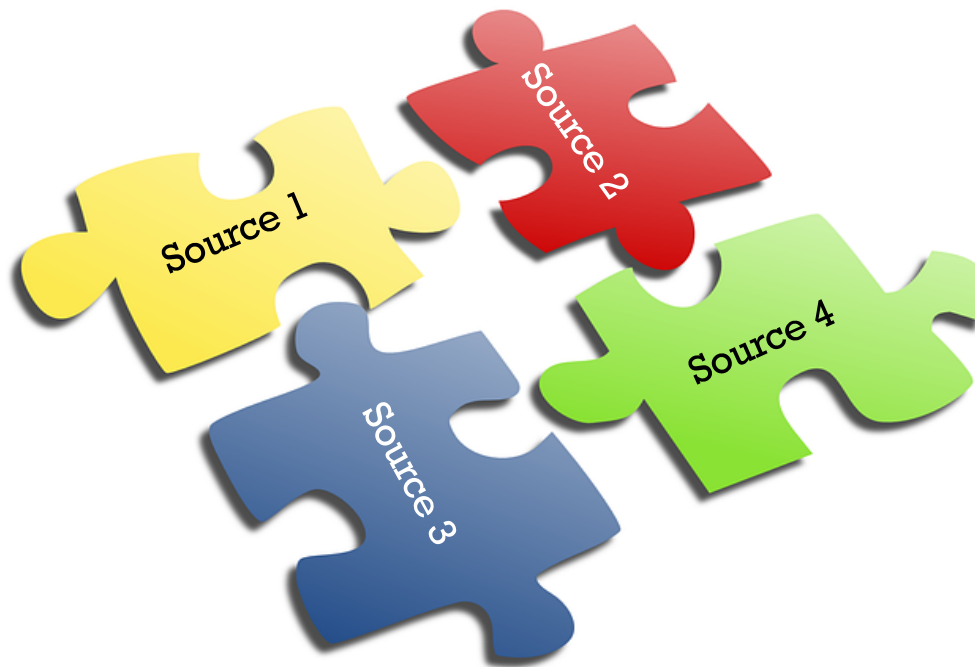
RP

## Background research...



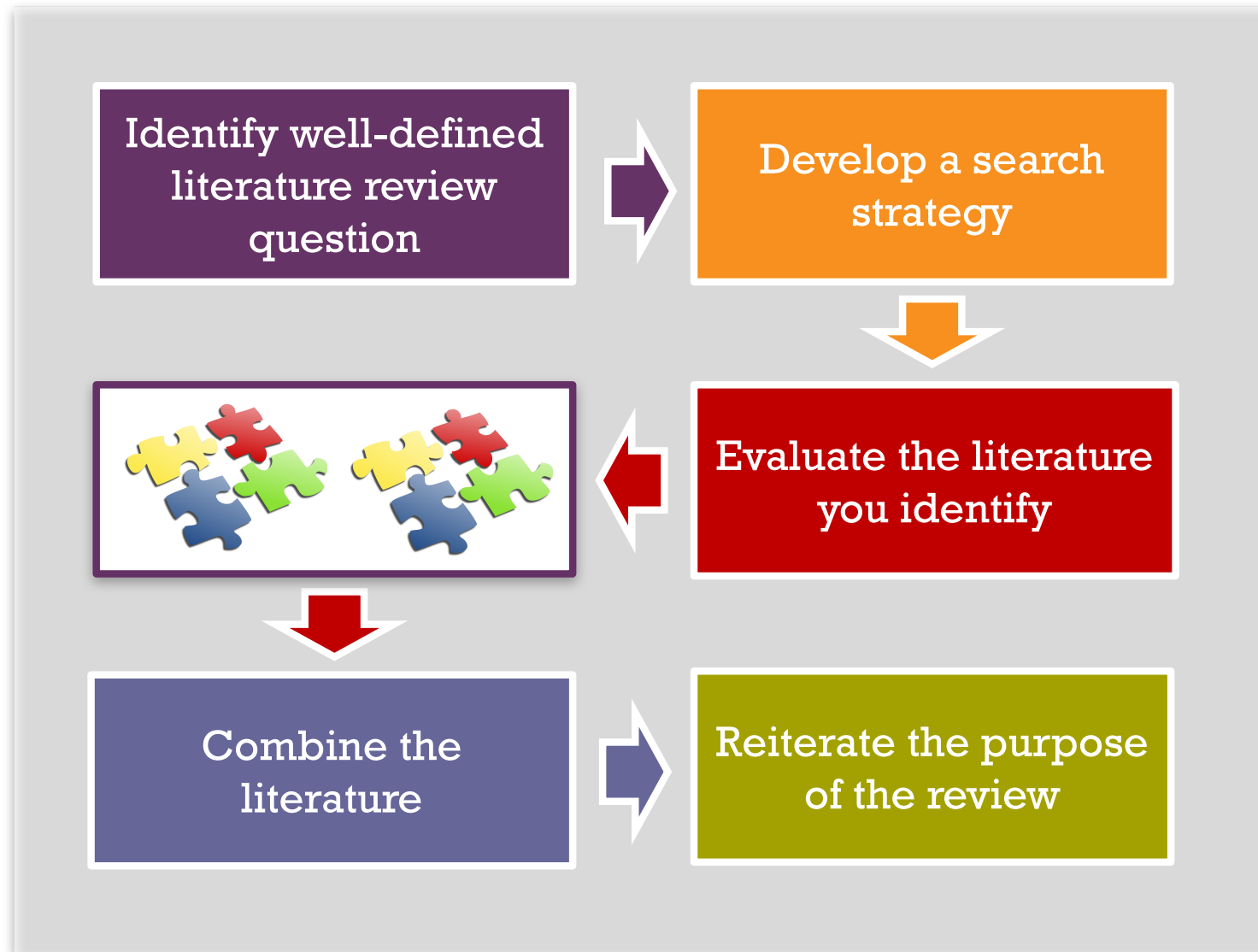
# + Literature Review

- “A literature review is the comprehensive study and interpretation of literature that relates to a particular topic.”  
(Aveyard 2007)



# + Literature Review

RP





# + Literature Review

RP

The UCD Library has some pointers:

## Analysing the literature

When analysing the literature, consider the purpose of your literature review.

You need to take notes on the literature, and then analyse and interpret the content.

Organise the findings of your research into key concepts or particular themes.

Position your research question in the context of the literature you have read.

Synthesise the research material to identify similarities and differences, key relationships, controversies and weaknesses.

Demonstrate how your work contributes to the area of study and formulate questions for further research.

## Writing the review

When writing up your Literature Review check to see if it has the following elements

- An introduction explaining the purpose of the proposed research and how the review is organised to demonstrate that the purpose is worthwhile.
- Heading (and sub-headings, if necessary) that tell the story in a logical order.
- Signposts to guide the reader through the topics under discussion.
- Selected references that represent the most recent and important contributions to the field.
- Comparisons between and evaluation of the methods and results of the literature cited.
- Clear links between the literature of the past and what you intend to do, showing why it is important and relevant.

(Denicolo, P. & Becker, L.M. 2012, Developing research proposals, p. 50)

# + What is expected?

- Recall the UCD grade descriptors (Level 4)
- The background research section of your report will be judged in particular with respect to
  - Your discussion of the research landscape (existing approaches, their strengths and limitations)
  - Your presentation of the technologies and the programming tools you have used
  - Your justification for decisions and innovations, including research into alternatives

## + Tips

- Write for an academic audience but do not overcomplicate; clarity will allow you to demonstrate your understanding
- Use a standard citation format - look at the tips on this (and how to avoid plagiarism) at [www.plagiarism.org/citing-sources/overview/](http://www.plagiarism.org/citing-sources/overview/)
- Use a spell-checker!
- Don't forget your own time management; if you don't plan, you are setting yourself up for failure