

Attractive abstracts

why & how?

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Effects of the abstract

(1) Summary of your work

Contradictions:

- Self-contained
- Make **everyone** want to read paper?
- Make **experts** want to read paper?

(2) Helps experts find your work

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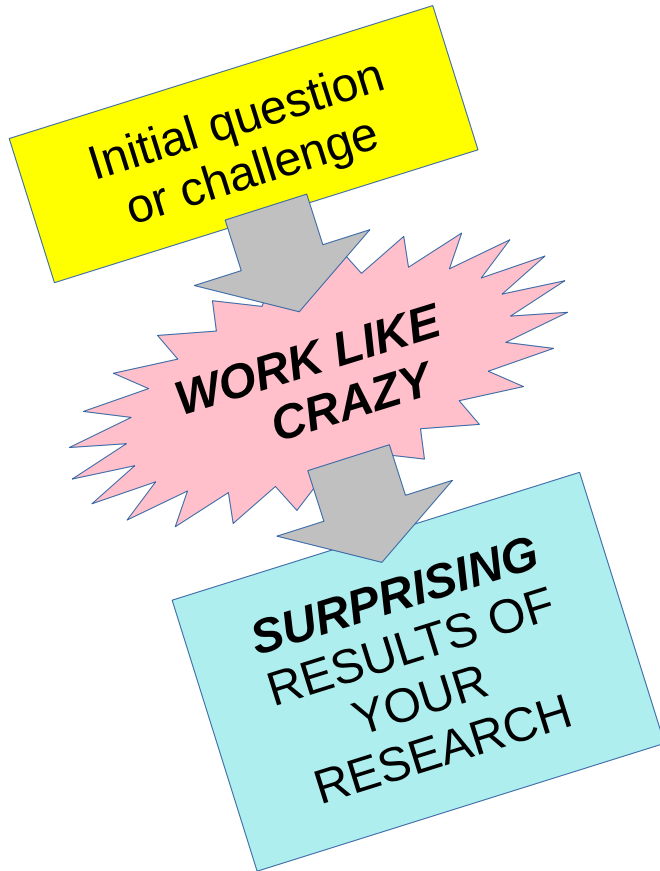
Many will only read abstract

HOW TECHNICAL?

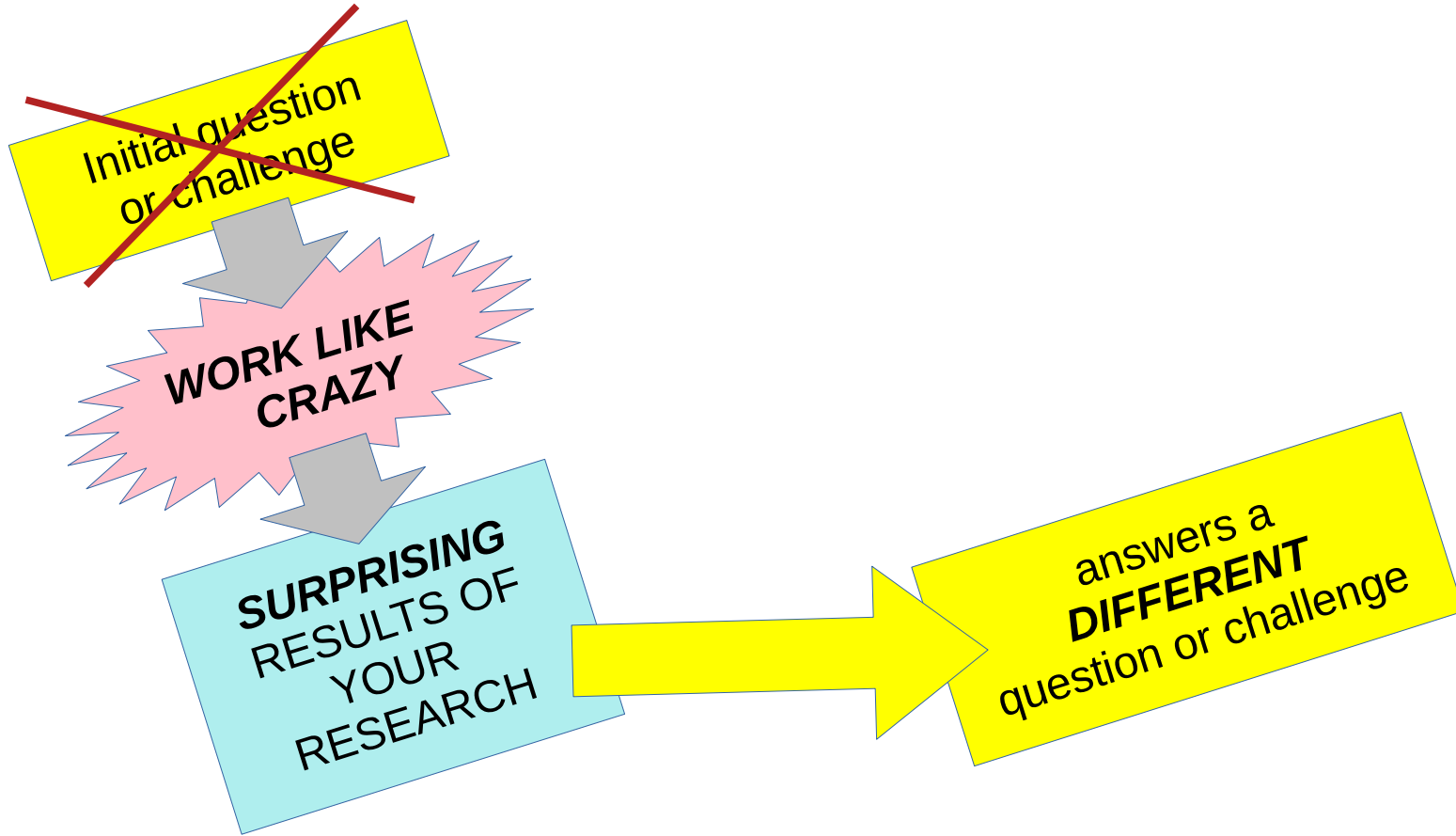
(2) Helps experts find your work

EXPECTED
STYLE
KEYWORDS

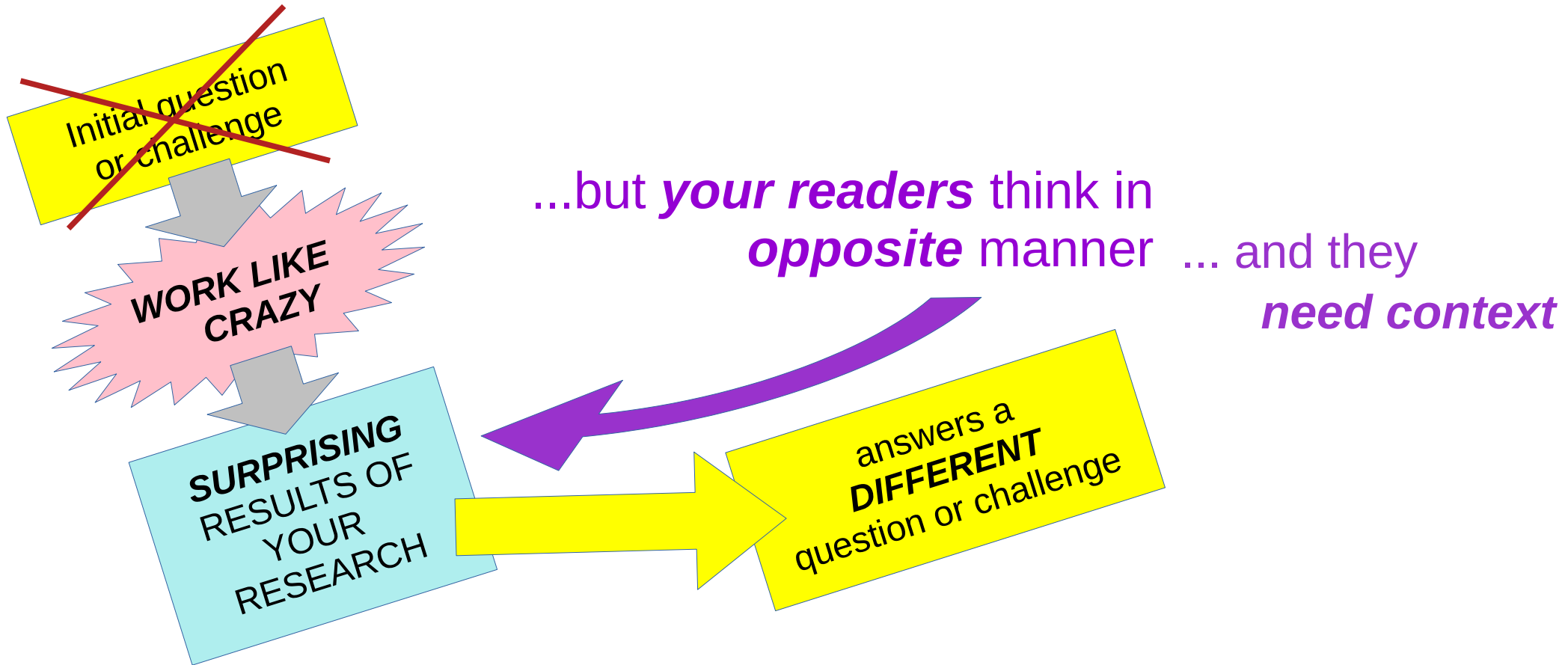
Typical research project



Typical research project



Typical research project



Curse of knowledge:

You know your goal
but your reader does not

Most people need to
know the goal
before they can
understand

- some old newspaper to start
- bucket of water
- games for kids
- install near a shady tree
- people bring chairs
- music
- tongs & apron
- check the weather forecast
- folding table
-

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Tool to build an abstract

from Randy Olson's book (2015) on scientific communication "Houston we have a narrative"

... AND ... BUT ... THEREFORE ...

**ALMOST
THE SAME AS**

Situation – Challenge – Solution

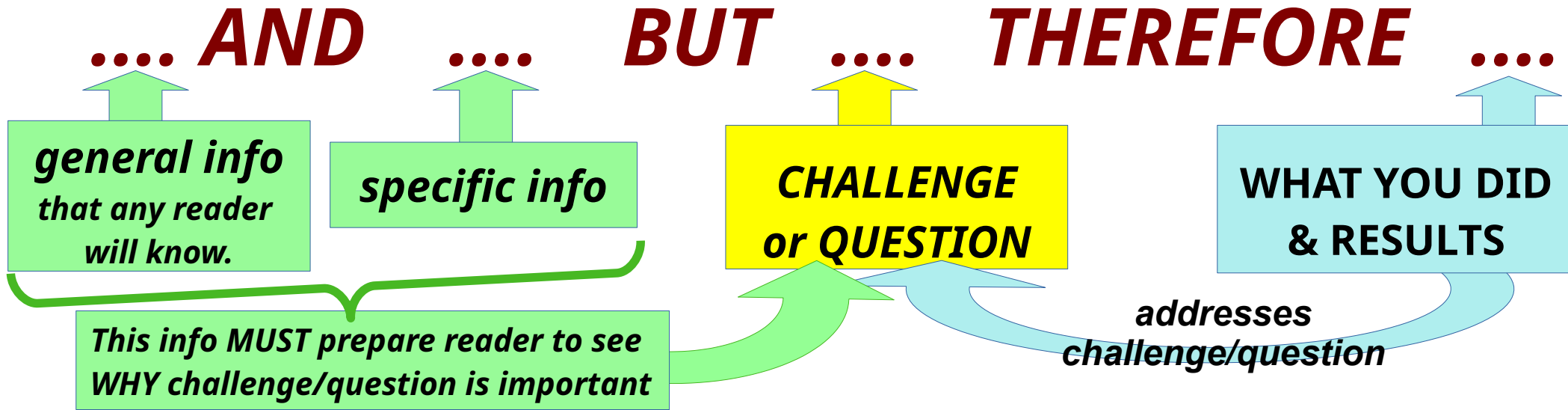
*in Barbara Minto's book for technical writing in business/industry
"The Pyramid Principle:..." (1985)*

Opening – Challenge – Action – Resolution

in Joshua Schimel's book "Writing Science: ..." (2011) soil microbiology & ecology

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or replace "and"
with nothing
(just multiple sentences)

prefer "However", or consider "Yet",
"Although", "Unfortunately", "Despite"

or "Hence", "Thus", ...

.... **AND**

.... **BUT**

.... **THEREFORE**

....

general info
that any reader
will know.

specific info

CHALLENGE
or **QUESTION**

WHAT YOU DID
& **RESULTS**

This info **MUST** prepare reader to see
WHY challenge/question is important

addresses
challenge/question

**ALMOST
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An example:

Abstract of a masters student's project report = **written for** other masters students in physics:

Measurements under high magnetic fields are extremely common in physics. In most cases, the magnetic fields are generated by an electrical current in a coil that is cooled by a water flow. However, this water flow creates vibrations, which are believed to cause uncertainties in experimental measurements done within these magnetic fields. Therefore, we have studied this in one ongoing experiment. We investigate the relationship between the water flow, the amplitude of the coil's vibrations, and the observed uncertainties in that experiment. We used Fourier analysis to show that measurement uncertainties are largest when the flow induces vibrations at the resonance frequencies of the system.

Comment: This abstract is generally very clear, except the two things underlined in **red**. Both of them would benefit from more explanation (perhaps an extra sentence or perhaps just 2 or 3 extra words would be enough)