NZCSRSC

From Thinking to Critical Thinking ... how to get there

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April 2010

Thinking 1

- Finding facts + learning these + recall in assignments and exams

    – descriptive recall

- What purpose does this serve?

- How deeply does this engage the brain?

- Can we improve on this?

An Aid to Thinking

Find and write about …………

Thinking

+

Writing

=

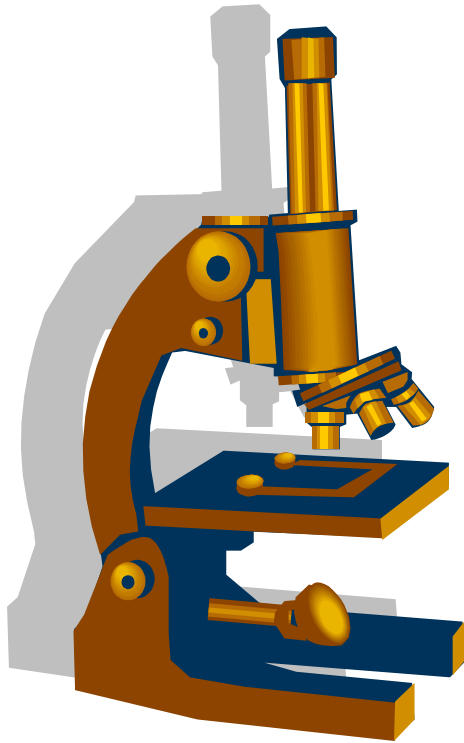Better thinking

Thinking 2

- Descriptive recall +

          some thinking skills

          Analysis

              Linking

                  Explanation

Analysis

- **Identify the key**

  points in the data.

Linking

- **Linking the Key Points by identifying relationships between them**

Explanation

- **Explain these linking relationships giving your reasons.**

Example

"A software engineering project is a temporary event with defined beginning and end dates, that uses the processes of design, build and testing to convert a list of requirements into fit-for-purpose artefacts required by the customer" (Author, year, p.).

Analysis

A software engineering project is

a temporary event with defined beginning and end dates

that uses the processes of design, build and testing

to convert a list of requirements into

fit-for-purpose artefacts required by the customer

Project beginning and end dates

Processes
Design
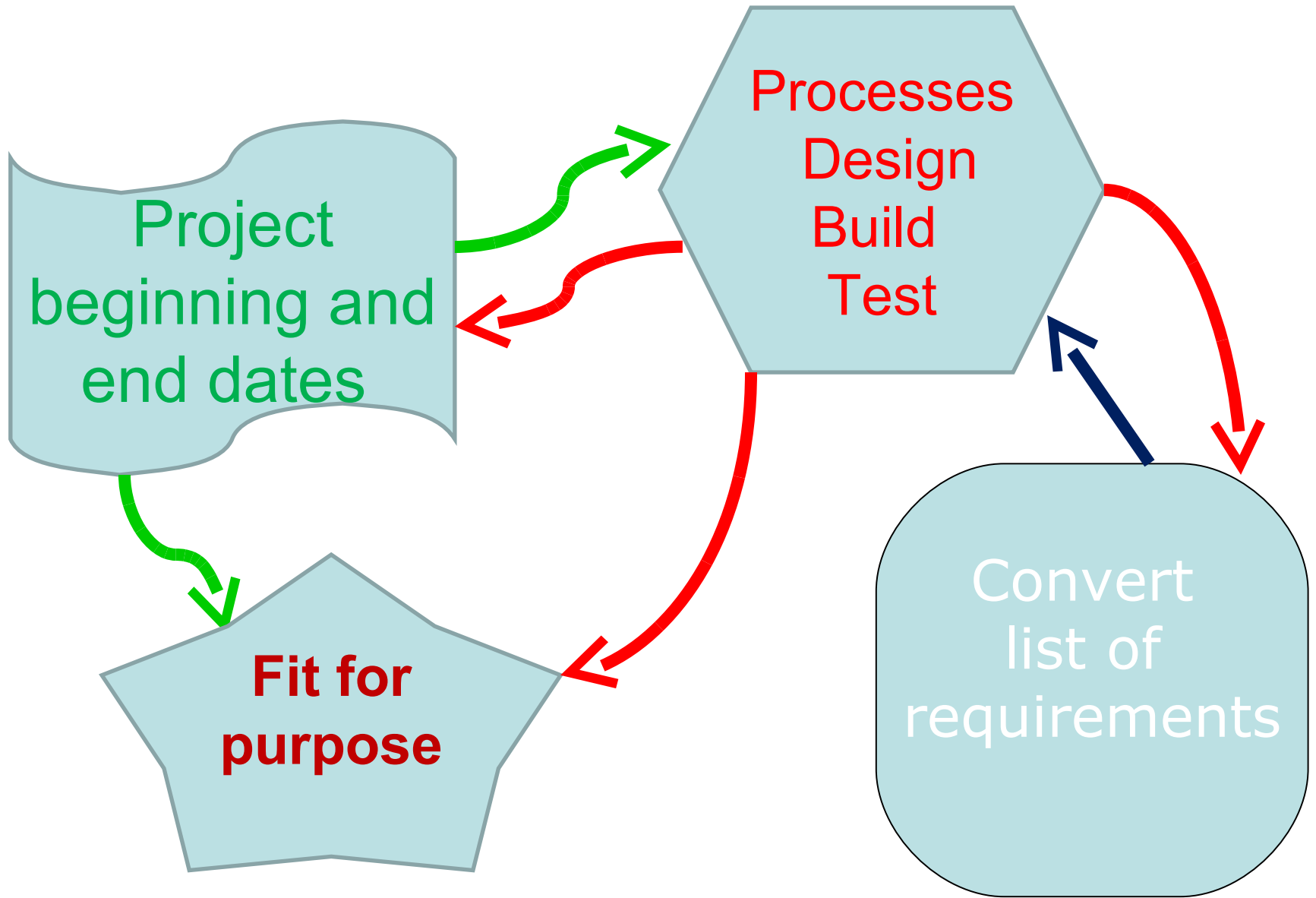Build
Test

Fit for purpose

Convert list of requirements

Linking

- **identify the linking relationships between the key points**

Research Journal/Log

- A collection of your personal reflective writings

- Reflective writing – physical form of your reflective thinking

- What is reflective thinking?

Explanation

- **Explain these linking relationships giving your reasons.**

An explanation of
a Computer Project

- All the design, build and testing stages have to be completed by the project end-date.
- If any of them takes too long the project will over-run.
- This means that a plan is needed of when the design process has to be done, when the build can be started and when the testing has to be finished.
- Testing is linked to the list of requirements and fitness for purpose.

Thinking 2

- Descriptive recall +

    some THINKING skills

    Analysis

        Linking

        Explanation

- Description + these Thinking Skills

        = Reflection

Thinking 3

- Apply the THINKING skills

  Analysis

  Linking

  Explanation

To your Analysis

To your Linking

To your Explanation

  = Critical Reflection

Thinking 4

- Consider your assumptions in your
  Analysis
    Linking
    Explanation

  = Critical Thinking

Research Journal

Find and write about information

Think

+

Writing

=

Reflective Thinking

Critical Thinking

- Reflection + More Thinking Skills
  - Interpretation
  - Analysis
  - Explanation
  - Evaluation
  - Inference
  - Self Regulation (Facione, 1998)