

While learning a structured problem solving methodology one typically rues the tedium interfering with inventive thinking.

Later, as the methodology inures in one's subconscious, shortcuts take form.

This paper focuses on the shortcuts of structured problem solving.

We have ample evidence that our conscious does not solve problems – our subconscious does.

That realization raises the issue of how to communicate problem-solving cues from our conscious to our subconscious and accept any ideas that are returned.

Presented here are arguments for the elimination of constraining logic in major parts of current structured, problem-solving methodologies.

Unified structured inventive thinking (USIT) is used as an example.

This should not be a bitter pill for logically trained technologists to take.

It does not substitute for any of one's early learning of problem-solving methodologies.

Instead, once a methodology is mastered, it encourages taking short cuts by eliminating or reducing heuristic constructions that have become second nature in one's logical thinking.

Logic is subdued in favor of evocative, vague cues – sometimes thought of as the poetic license of the intuition.

Two examples are presented of rapid problem solving using USIT in an abbreviated form.

One solution concept resulted in a USA patent, "Pedestrian Impact Energy Management Device with Seesaw Elements".

A problem and its solution concepts refer to the pre-engineering phase of problem solving.

In this phase all concepts are accepted without Proof of concept and model calculations come later.

Unfiltered concepts are a potential source of surprising ideas.

## "Subconscious Problem Solving Using Hazy Heuristics", Ed Sickafus (2014) Abstract

Visualization with Fuda-Yose Tool (Toru Nakagawa, Aug. 23, 2015) 1. Making Labels with individual sentences (in the original order)

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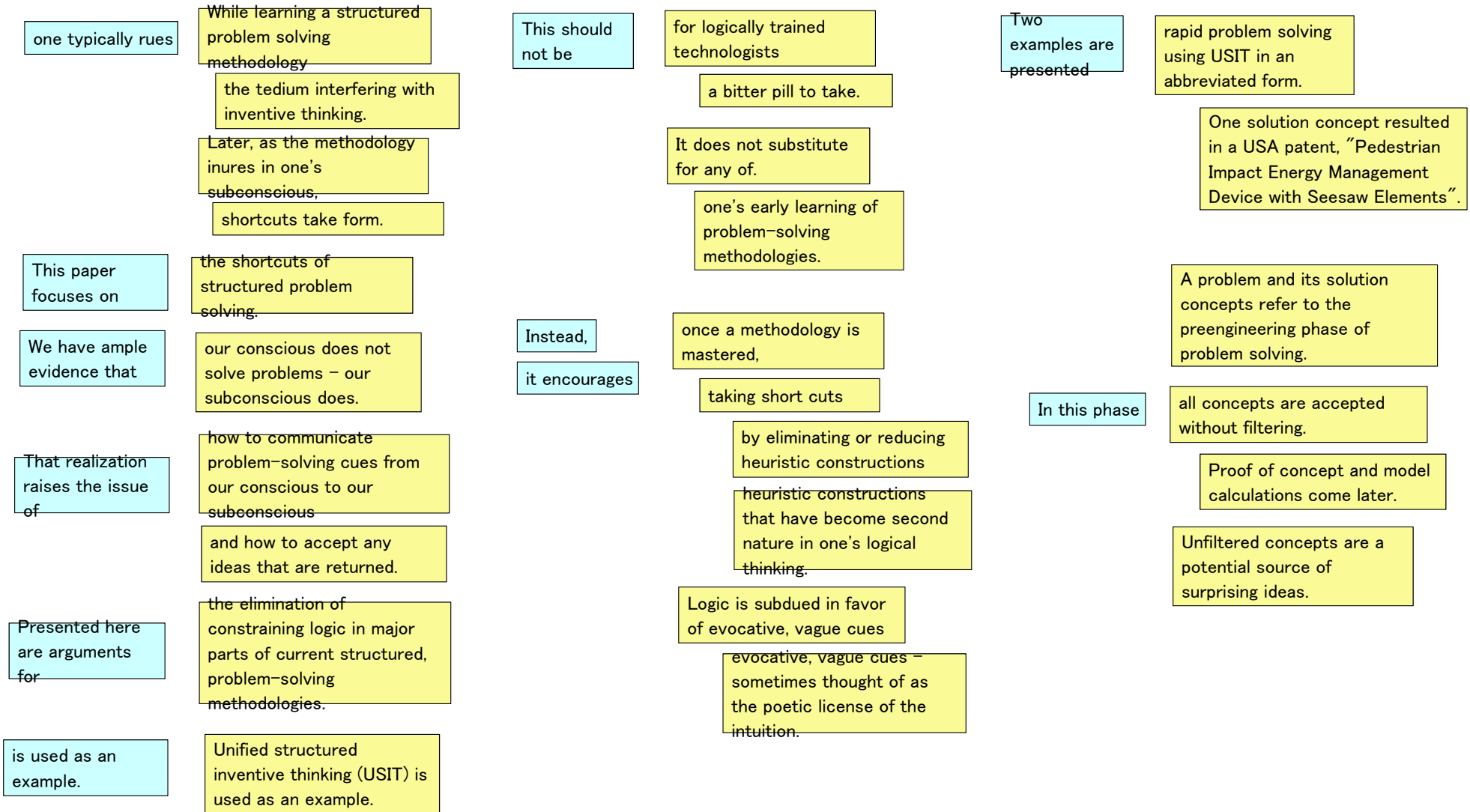
Proof of concept and model calculations come later.

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Visualization with Fuda-Yose Tool (Toru Nakagawa, Aug. 23, 2015) 2. Division of labels into smaller logical units.

Note: Blue labels show logical relationships/connections

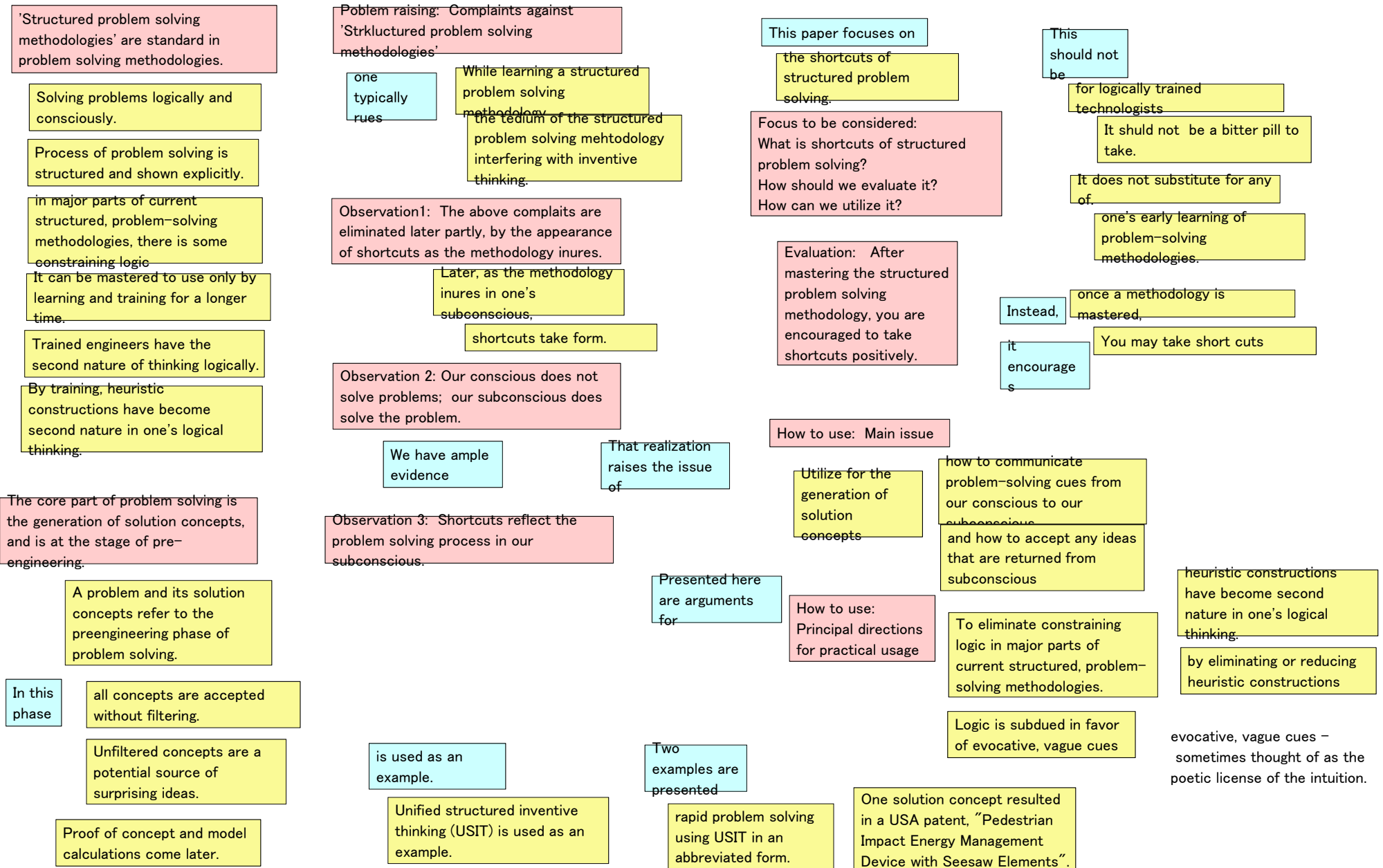


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Visualization with Fuda-Yose Tool (Toru Nakagawa, Aug. 23, 2015) 3. Structuring roughly

Note: Blue labels show logical relationships/connections

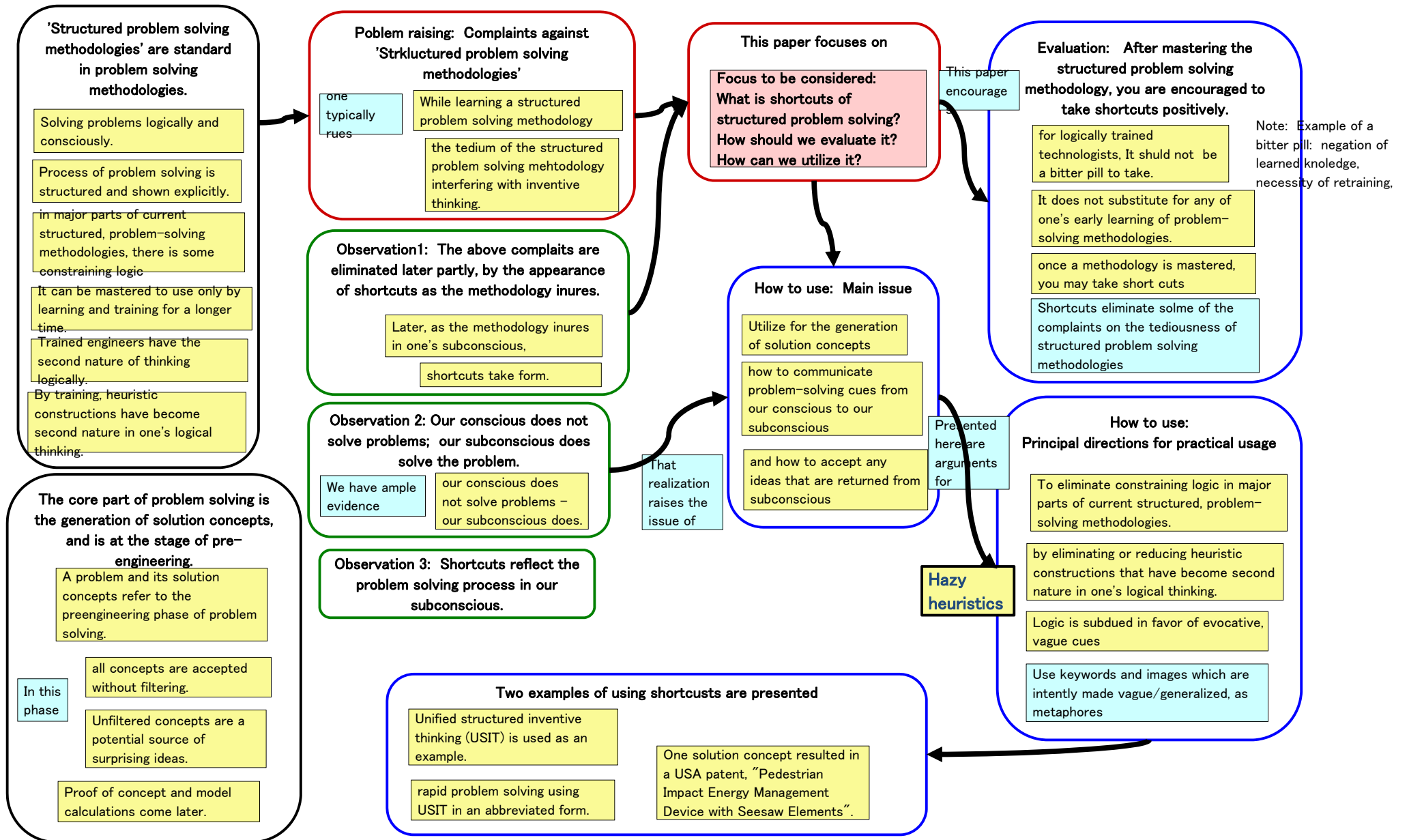
Note: Red labels for upper-level description; mostly added newly



"Subconscious Problem Solving Using Hazy Heuristics", Ed Sickafus (2014) Abstract

Visualization with Fuda-Yose Tool (Toru Nakagawa, Aug. 23, 2015) 4 Finishing (Using enclosures and arrows)

Note: Blue labels show logical relationships/connections



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Visualization with Fuda-Yose Tool (Toru Nakagawa, Aug. 23, 2015) 5 Showing the logic more clearly by eliminating the details

