Expertise
Management
Methode
op hoofdlijnen

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Introductie

Expertise Management Methode (EMM)

- Methode voor inzicht krijgen en verbeteringen tot stand brengen in complexe situaties

- Kennisborging door het vastleggen van good & bad practices in een Body of Knowledge (BoK)

- Netwerkorganisatie-ontwikkeling

EMM =

- rijke leeromgeving die continu wordt verrijkt

- een valorisatie instrument → meerwaarde met kennis

Introductie

EMM bestaat uit vier pijlers

- Soft Systems Methodology (SSM)
  - Methodologisch raamwerk voor actieonderzoek
- Expertise Management ontologie (EM$_{ont}$)
  - Model voor het vastleggen van knowing-that (feiten en concepten) en knowing-how (skills) kennis
- Concept mapping
  - Visualiseren van kennisstructuren
  - Verbinden van nieuwe kennis met bestaande kennis
- Semantic wiki
  - Best of both worlds: wiki voor user generated content en semantisch web (database) voor structureren van wiki

verdiept

gebaseerd op

ingebouwd in

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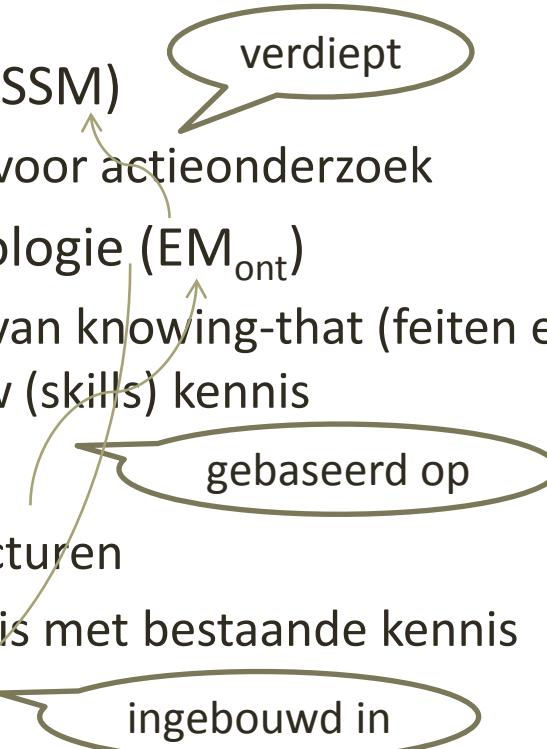
DIKW piramide

- Data: ruwe, niet geïnterpreteerde gegevens

- Informatie: geaggregeerde data, geïnterpreteerd vanuit een bepaalde context

- Kennis: inzicht in patronen hoe met informatie wordt omgegaan

- Wijsheid: begrijpen van patronen.

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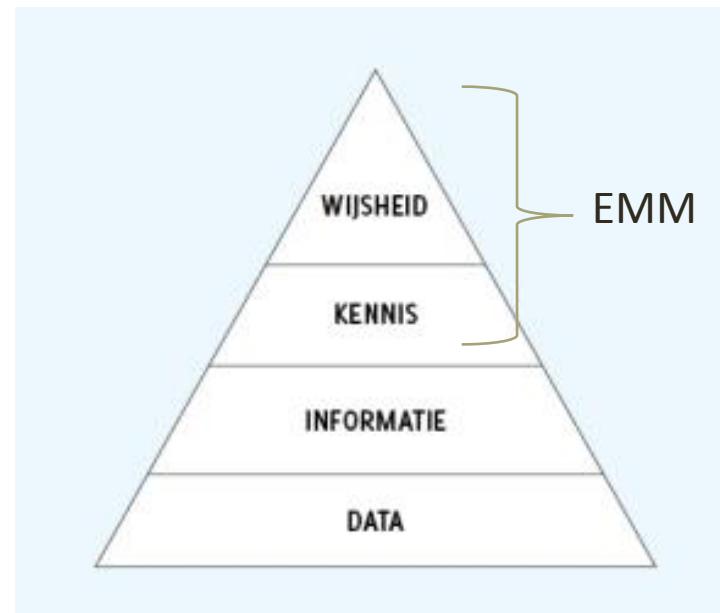
Menselijke kennis

The "purpose" of human memory is ... past events to guide future actions.
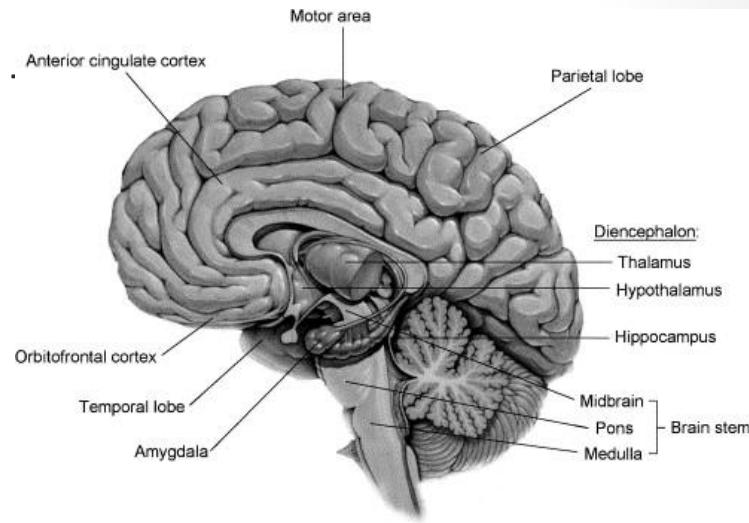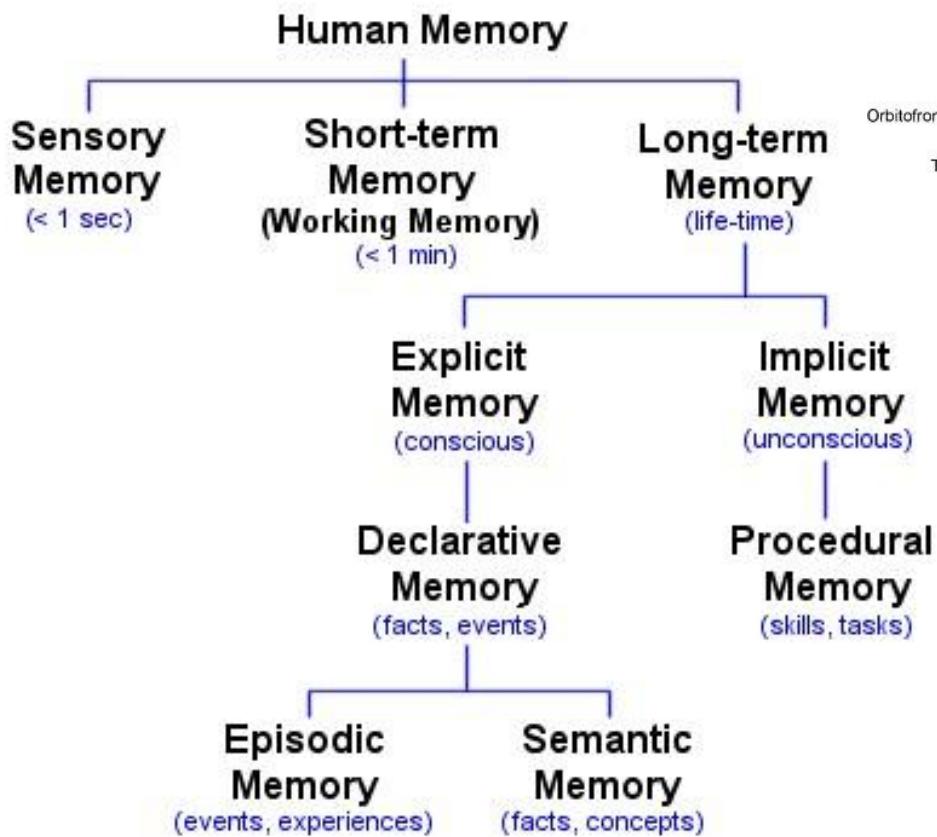
Mindset

A systems approach begins when first you see the world through the eyes of another.

C.W. Churchman, 1968

Think globally, act locally
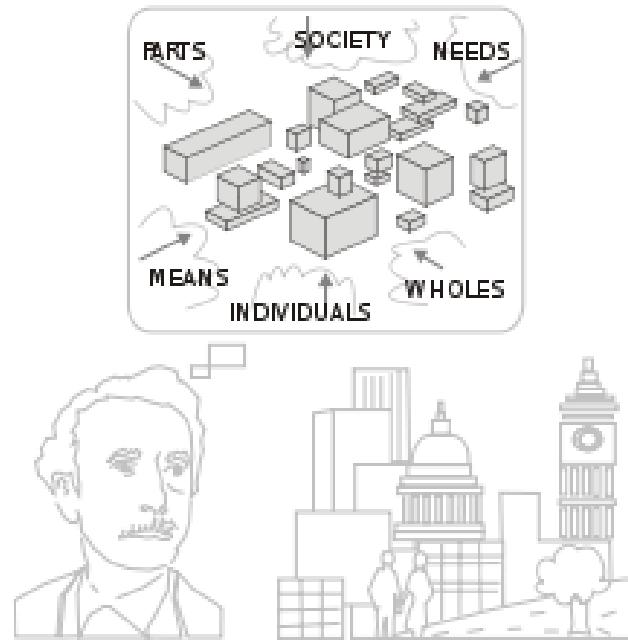
Learning for Action
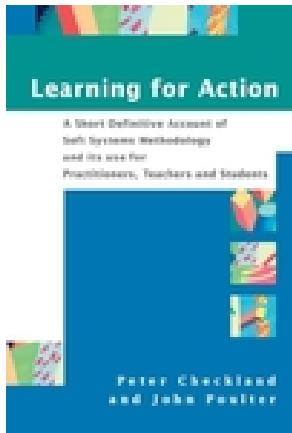
Learning for Action:

A Short Definitive Account of the Soft Systems Methodology and its use for Practitioners, Teachers and Students

Peter Checkland and John Poulter

Wiley, 2006

What is a system?

- a system has structure, it contains parts (or components) that are directly or indirectly related to each other

- a system has behavior, it contains processes that transform inputs into outputs (material, energy or data)

- a systems has interconnectivity: the parts and processes are connected by structural and/or behavioral relationships

- a system's structure and behavior may be decomposed via subsystems and sub-processes to elementary parts and process steps
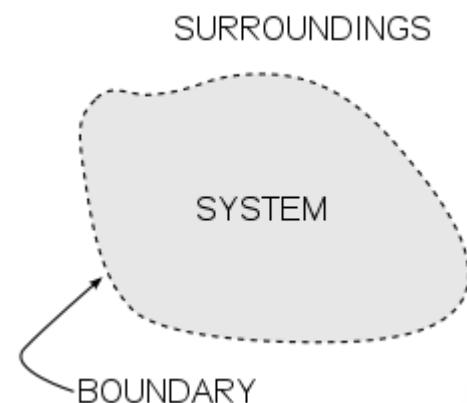
Soft Systems Methodology

a very, very short tour

- We are living in a complex society with "messy" situations that can be improved somehow.
- SSM is an organized way to tackle problematic situations; it is action oriented.
- The complexity of situations is caused by different worldviews, which are often taken for granted.
- People want to act purposefully, with intention.
- SSM approach:
  1. Finding out;
  2. Model building: purposeful activity models;
  3. Discussing and debating;
  4. Taking action: arguably desirable and culturally feasible.
- These four steps constitute a learning cycle. SSM is group learning.
- Taking action implies changing a situation in which we can find new opportunities to improve. In short, SSM is a never-ending story.

2: Making purposeful activity models


- P: what?
- Q: how?
- R: why?

PQR in tekst

PQR: Doe P door Q met als doel R.

- P = wat?

- Q = hoe?

- R = waarom?

- Bijvoorbeeld bij een ramp willen we onszelf in veiligheid brengen (R) door het uitvoeren van reddingsacties (P).

- Concrete invullingen van een reddingsacties zijn: de ramp bestrijden (Q1) of evacueren (Q2).

- De PQR formule wordt herhaald toegepast, waarbij een Q op een ander niveau weer de rol van P speelt. Bijvoorbeeld evacueren (P) kan door middel van met de auto vertrekken (Q1) of met een helikopter worden gered (Q2).

PQR in een concept map
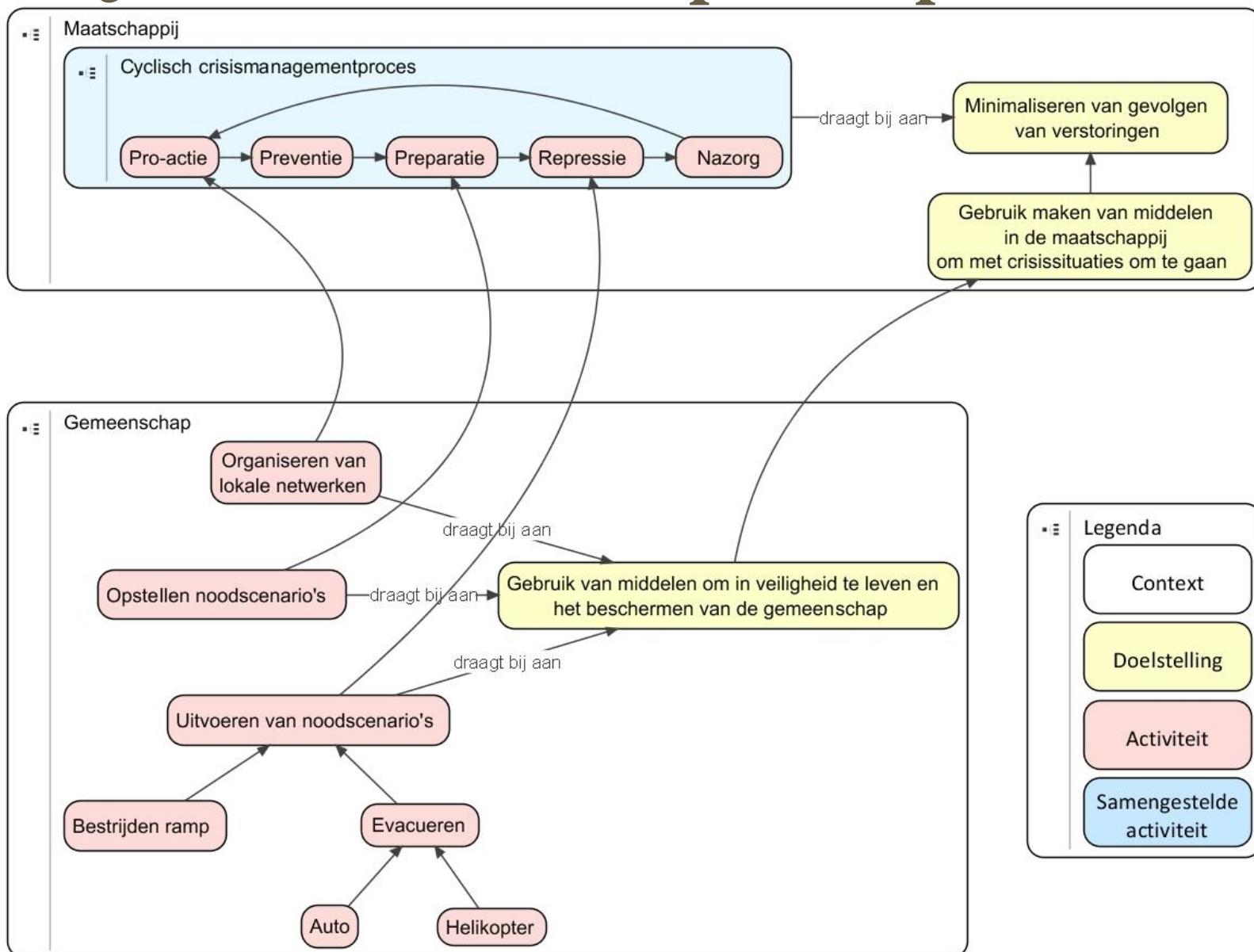
Concept mapping

- A concept map is a diagram showing the relationships among concepts. It is a graphical tool for organizing and representing knowledge:
    - Provides insight in a domain (very useful in education)
    - First step in formalizing a domain (ontology building)

- Proposition: ⟶
    - Should read as a sentence, e.g. *Hans* (subject) *houdt van* (predicate) *muziek* (object)

- Visual Understanding Environment (VUE) (vue.tufts.edu)
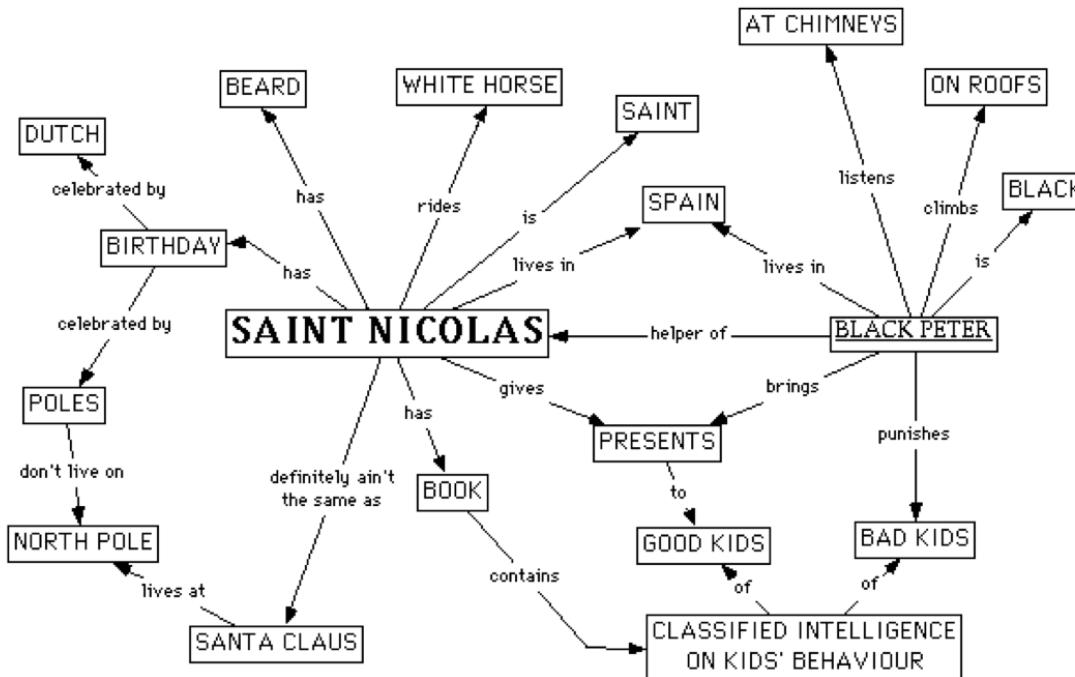
PQR formula
The modeling workhorse
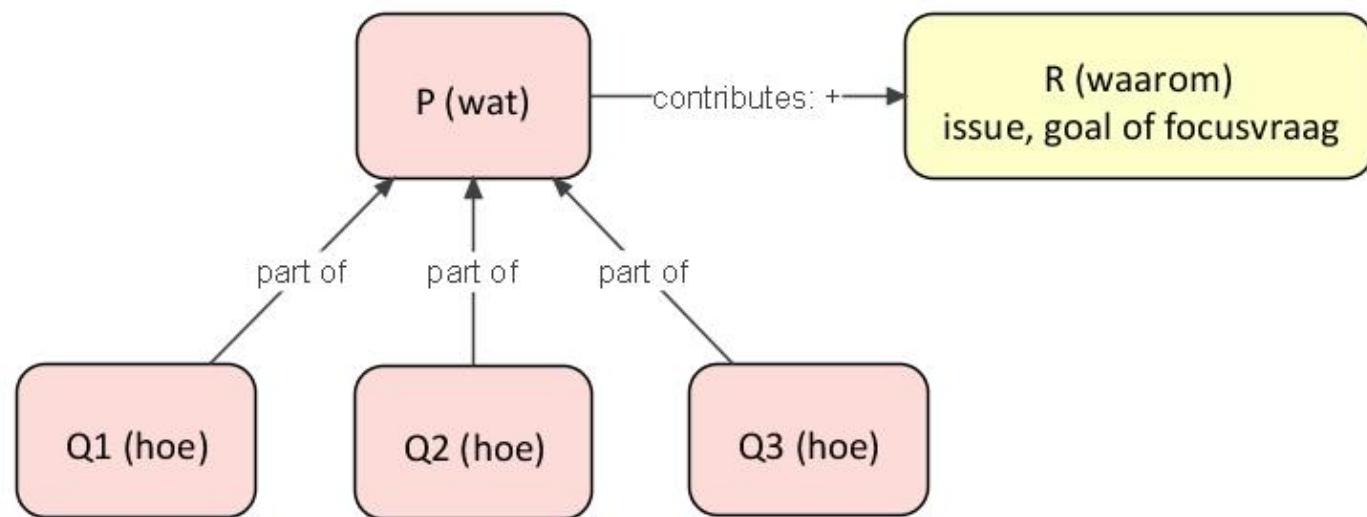
Interacting contexts
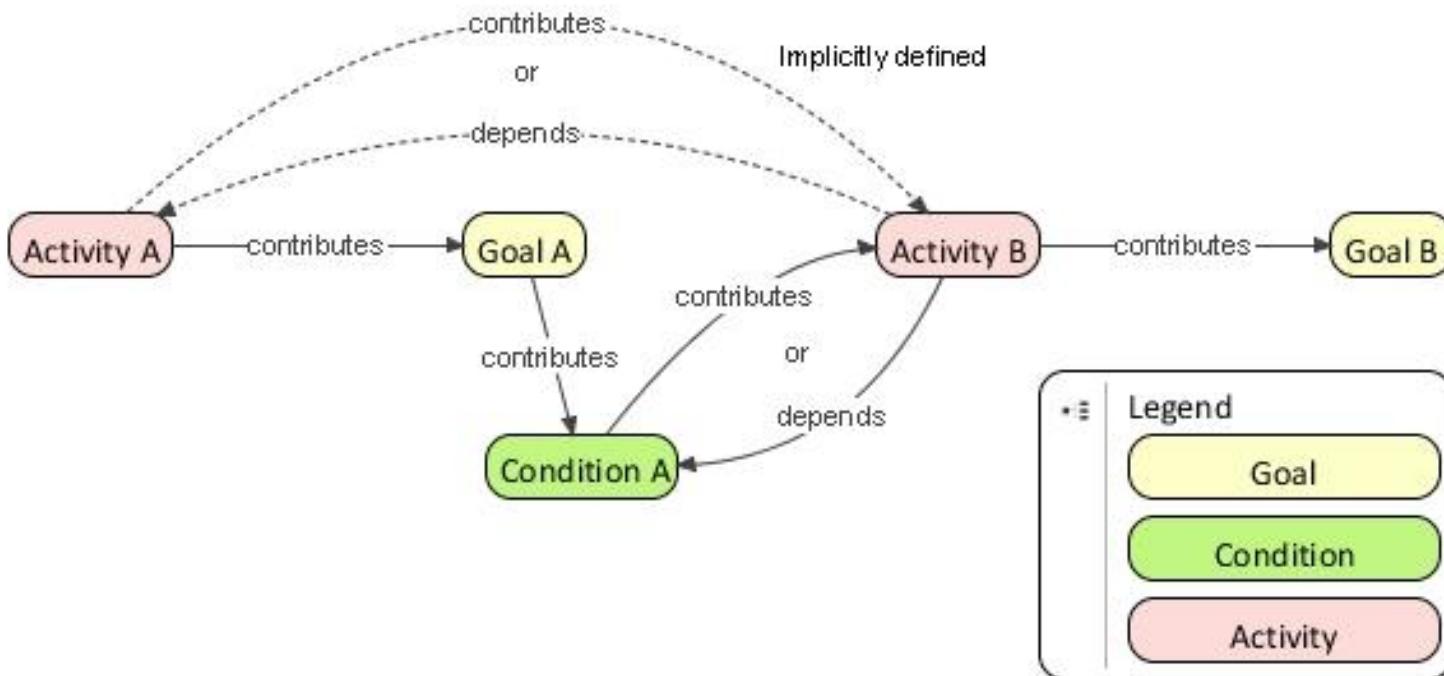
Levels

Level 0	Thesaurus/SKOS	Upper ontology: PQR/EM_{ont}
	Related concepts: what, why, who, when, where …	*How to do things from different perspectives (good or bad practices)*
Level 1	Domain-specific thesaurus	Domain-specific ontology
	Documents, Videos, URI's, …	*How things were done (good or bad experiences)*
Level 2	Examples	Experiences

Data-Information

Knowledge-Wisdom
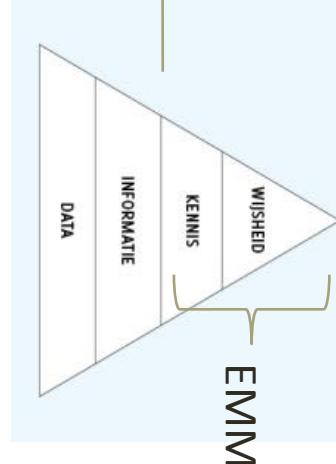
Issue-based approach

- Define the main issue, using a focus question. For instance, a high level focus question is how can we build a resilient community?

- Define the stakeholders and their concerns. Especially from the concerns from stakeholders, new sub-issues and corresponding focus questions can be derived, resulting in a hierarchy of issues.

- Work out the issues in terms of goals, beliefs, activities (satisfying goals) in the form of concept maps.

- The concept maps (one for each issue) form the basis for setting up the wiki.

Structured interview

- Based on PQR formula

- Scenario-based:
  - Ask for a recent, typical scenario fitting the problematic situation, i.e., the stakeholder's sub-issue
  - Elaborate the scenario, e.g., go into the actions, resources, beliefs, conditions, and control issues
    - What do you expect from others, and what is expected from you?
    - What do you need form others, and what is needed from you?
  - Step back in the scenario, remove the constraints:
    - how would you approach the situation again using lessons learned?
    - if certain limits are removed, how would you approach the situation?

- The latter step reveals the stakeholder's worldview (The Q's in the PQR formula)

Semantic Mediawiki (SMW)

- Wiki's are well suited for dissemination
  - User generated, moderated articles
  - Articles are connected through static links
  - Easy to use

- Wiki's are great, but it can be even greater: semantic Wiki:
  - Articles annotated with properties
  - Other articles may contain query's based on properties: dynamic links, always up-to-date
  - Querying the semantic-web with Sparql

  → A semantic Wiki makes information and expertise accessible in a structured way

- Take a look at: www.zeeweringenwiki.nl

Concluderende opmerkingen

De lijn: data – informatie – **kennis – wijsheid**
- Focus op kennis-wijsheid, maakt gebruik van data en informatie

Ruime ervaring opgedaan:
- DoZo/Zorgverband
- Zeeweringen
- Building with Nature
- Resilient communities
- Flood aware
- Kennis voor Klimaat
- Zeeuwse tong
- Pabo curriculum
- En vele andere projecten in de maak
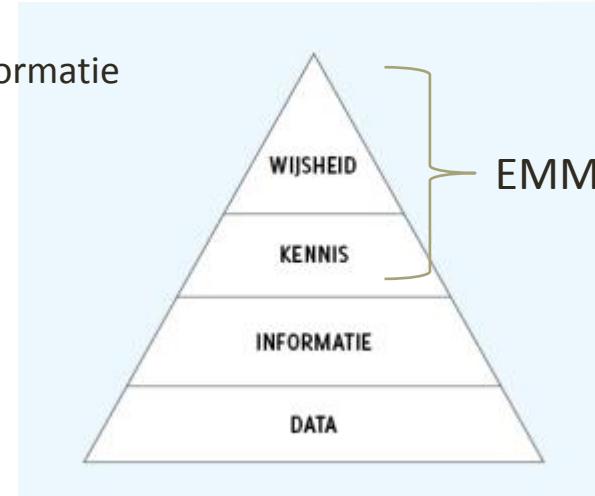
EMM = SSM + EM_{ont} + concept maps + semantische wiki =
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Het werkt!

EMM

WIJSHEID

KENNIS

INFORMATIE

DATA