HANDOUT METHOD **CRITICAL THINKING WITH RATIONALE (CTWR)**


Content:
1. How to develop critical thinking skills?
2. Overview of critical thinking skills being trained with *CTwR*
3. Content of the method *CTwR*
4. Topics of the PowerPoint Lectures within *CTwR*

1. How to develop critical thinking skills?

1. Acquiring expertise in critical thinking is hard.

2. Critical thinking can be learned: Practice in critical thinking skills
   enhances those skills.

3. CT should be trained separately AND in other subject matters within a curriculum. The transfer of skills must
   be practiced.

4. Some theoretical knowledge is required:
   - you perceive more of what is going on
   - you have a better basis for self-monitoring and correction
   - theory provides the foundation for explicit guidance and feedback from a teacher or coach.

5. Students are prone to ‘belief preservation’. CT is a disposition that should be trained and modelled by teachers within a whole curriculum.


Tim van Gelder,
2. Overview of critical thinking skills being trained with *CTwR*

- **Grouping**: Ordering and presenting of information with clarity. Grouping of items. Choosing grouping principles. Orderly presenting items within a group.
- **Structuring**: Presenting reasoning with clarity and rigour in prose. Refining claims. Identifying arguments in prose. Presenting arguments orderly in prose.
- **Evaluating**: Telling how strong reasoning is. Determining: the solidity of bases, truth of claims / premises and strength of simple arguments / cases. Recognizing types of arguments and fallacies.
3. Content of the method **Critical Thinking with Rationale**

**Method Critical Thinking with Rationale (CTwR)**

- **Teaching Materials**
  - 26 Pp. Lectures with exercises
  - Teacher Manuals
  - Book: Critical Thinking, Reasoning and Communicating with Rationale, Pearson, 2009
  - Sites in Rationale with Exercises and Self-Assessment
  - Homework Assignments with model answers answers
  - Checklists
  - Assessment materials
  - Background materials

- **Web Application**
  - Rationale Online

- **Organisation of CTwR in courses and curricula**
  - Courses CTwR
  - Integration of CTwR in a curriculum

- **Rationale Online**
  - 1. Critical Thinking Exercises
  - 2. Argument Mapping Tutorials
  - 3. Reasoning for Knowledge Exercises
  - Tutorials Reasoning for Knowledge

- **Course outlines (1 - 9 ECTS)**

- **Self-study Guide CTwR**

- **Guide with tips on how to integrate CTwR into a curriculum**

- **Grouping**
- **Reasoning**
- **Structuring: Essay Planning**
- **Advanced reasoning: Analysing**
- **Evaluating**
- **Deliberating**

- **Publications**
- **Materials Reason! Able**

- **Community of practice of teachers CTwR**
- **Sites dedicated to CTwR and AM**
4. Topics of the PowerPoint Lectures within CTwR

- Critical Thinking
  - 1. Introduction Critical Thinking
  - Grouping
    - 2. Grouping
    - 3. Advanced Grouping
  - Reasoning
    - 4. Fundamentals of Reasoning I
    - 5. Fundamentals of Reasoning II
      - 6. Refining Claims
      - 7. Basic Argument Identification: Principle of Benevolence
      - 8. Identifying Complex Arguments
      - 9. Writing an Essay
  - Structuring
    - 10. Copremises I
    - 11. Copremises II
    - 12. Inference Objective
    - 13. Deductive Arguments
    - 14. Inductive Arguments
    - 15. Abductive Arguments
  - Analyzing
    - 16. Evaluation Introduction
    - 17. Evaluating Bases
    - 18. Evaluating Claims: Reasons, Scenario test I
    - 19. Evaluating Argument Patterns, Critical Questions, Scenario test II
    - 20. Fallacies
  - Evaluating
    - 21. Knowledge
    - 22. Cognitive Bias
    - 23. Confirmation Bias and Rationale Inquiry
    - 24. Experts, Expertise
    - 25. Testing Hypotheses
    - 26. Decision-Making

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