Training Needs Assessment & Evaluation techniques

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Why training?

« *Whenever a problem arises, managers usually see only one solution: training!*»

« *The first thing which is cancelled when there is no money or no time is training.* »

Belief :
Training bridges the gap

Future / desired situation

training

Current situation

Importance of training

- We invest a lot in training:
    - Standard training offer
    - Classroom training
    - Alternative training methodologies
    - E-learning
    - Blended learning

Why ?

BUT:

- **often, nothing really changes after training** is delivered…

Two steps towards **effective training**

I. training is only one 'bridge', **other actions are required**

before	Conduct a **Training Needs Assessment** (Learning Needs Assessment - Business Needs Assessment)

II. impact and transfer of training need to be organized and measured

after	Plan and execute actions to enhance and evaluate training **transfer** and **impact**

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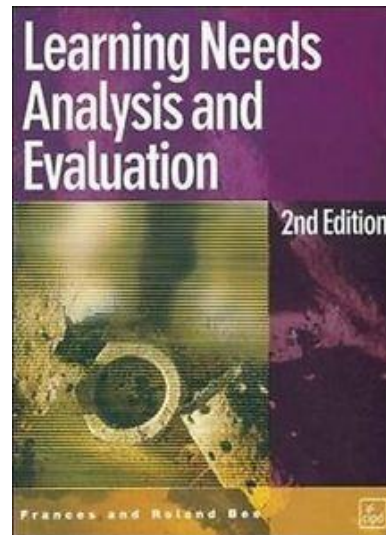Federale Overheidsdienst
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Needs assessment

Evaluation

Exercise!

How do YOU analyze needs?

(training) needs assessment?
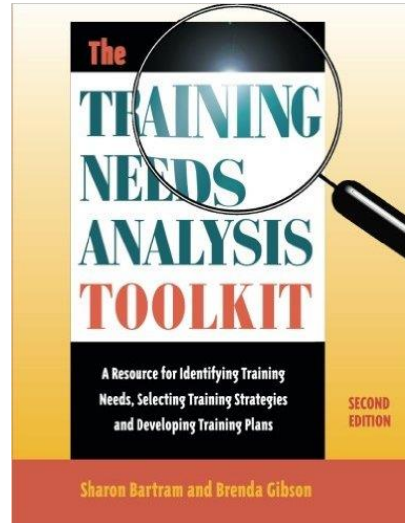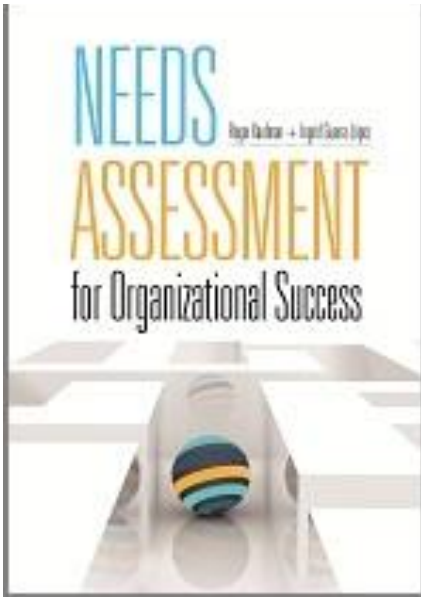
Needs assessment

Needs analysis

Learning Needs Analysis

Training Needs assessment

Training Needs analysis

organization

Top-down

Bottom-up

Input:

- Vision, mission, values
- Organizational objectives & targets
- Strategic Management plan
- Collected Division & Team development needs assessment feedback

Result: Global Development Plan (GDP)
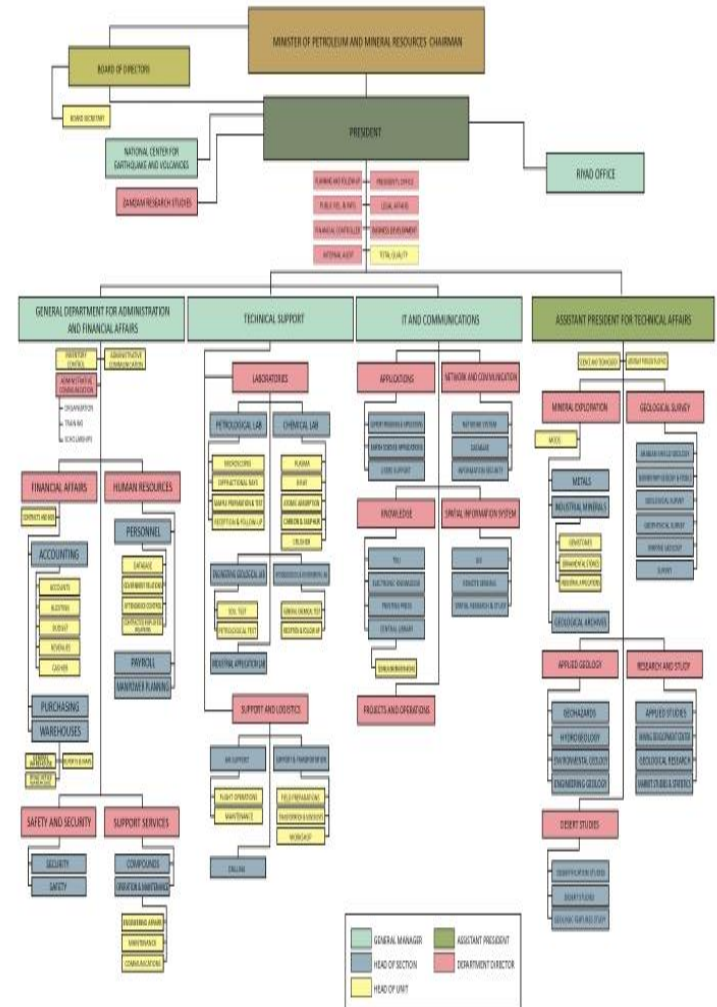
Training Needs Assessment: 3 levels

team

Top-down

Bottom-up

Input:

- Operational Management plans
- Division / Team objectives & targets
- Team development needs assessment feedback
- Collected Individual development assessment feedback

Result: Team Development Plan (TDP)

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Training Needs Assessment: 3 levels

individual

Top-down

Bottom-up

Input:

- Division / Team objectives & targets
- Individual development needs assessment feedback
- Appraisal process interviews

Result: Individual Development Plan (IDP)

Training Needs Assessment: a 5-step process

1. Situating the question

2. Gathering information

3. Making a GAP analysis

4. Formulating objectives

5. Reporting & contracting

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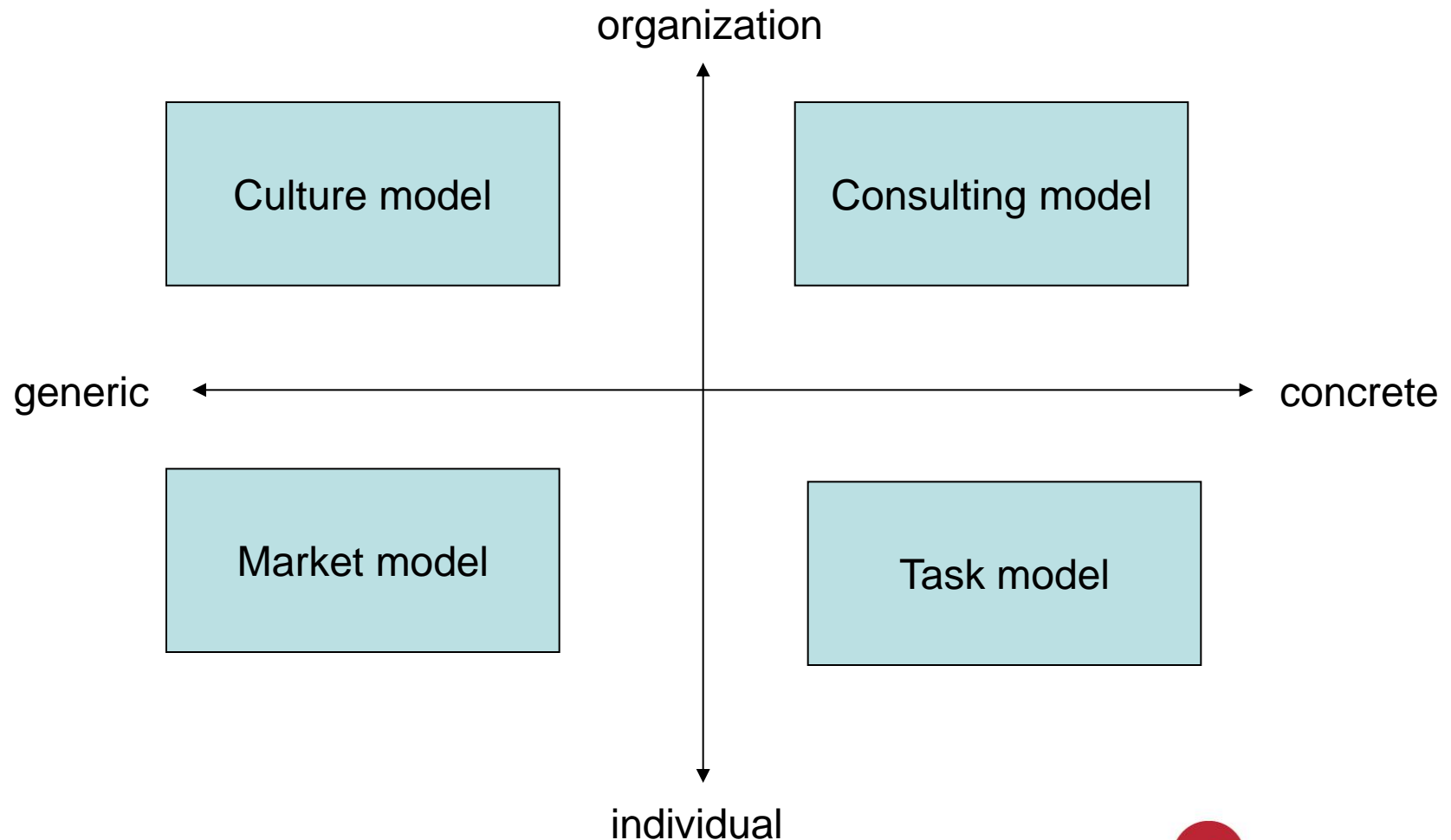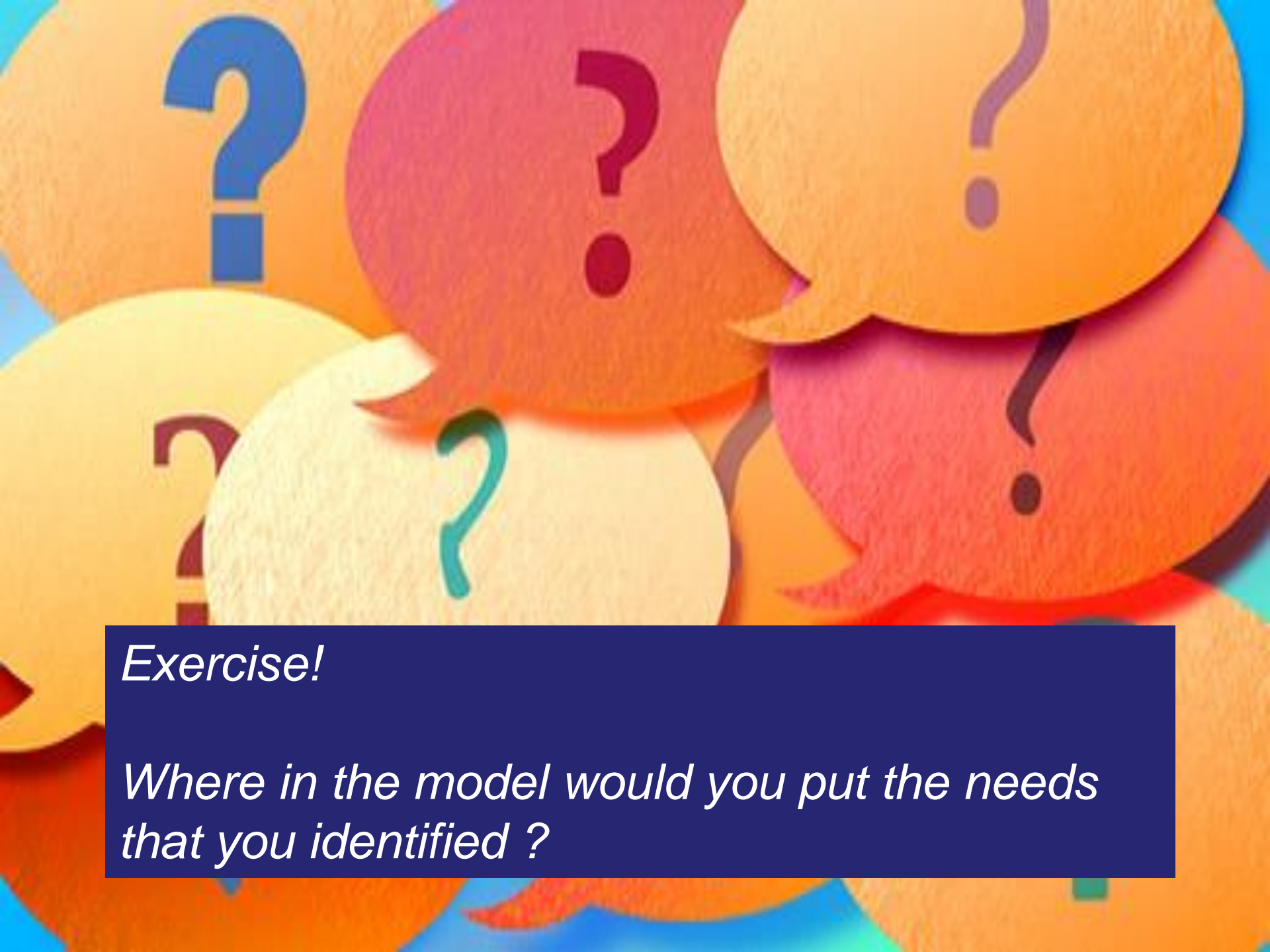
Exercise!

Where in the model would you put the needs that you identified ?

Step 2: information gathering, planning & executing

- **Checklist**: *"what, who, how, when, why?"*

- Essential questions:
  - **What** would we like to survey
  - **Who** is stakeholder / are we going to survey / should be informed / is sponsor / should be implied / are colleagues / are clients / …
  - **How** are we going to analyse the demand / identify the problem / collect information (questionnaire? Survey? Interviews? Observations? Mystery guest?...)
  - **When** do we plan the different actions? (timing)
  - **Why**? (motivation – *"what if no action is undertaken?"*)
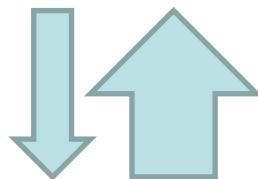
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Training Needs Assessment

Step 3 : making a gap analysis

Current situation

Future / desired situation

indicators

indicators

list **observations**

list **objectives**

3 basic questions:

• *"which ways are there to bridge the gap?"* *(learning & development / training is only one way!)*

• *"what has happened already?"*

• *"what if nothing happens?"*
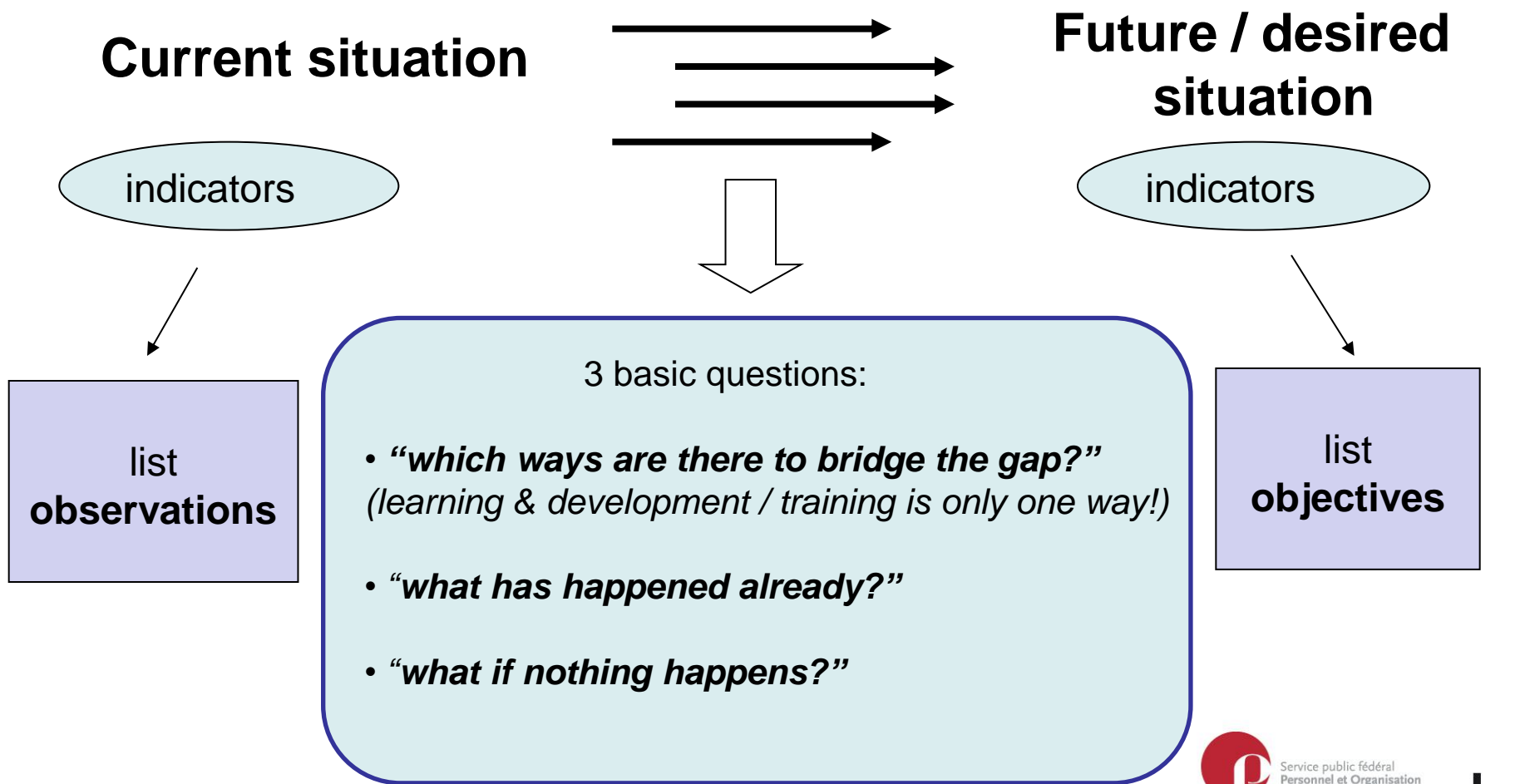
GAP analysis: instruments

- SWOT analysis
  - cost-consequence analysis
  - Ishikawa

GAP analysis: instruments

5 why-method (Toyota)
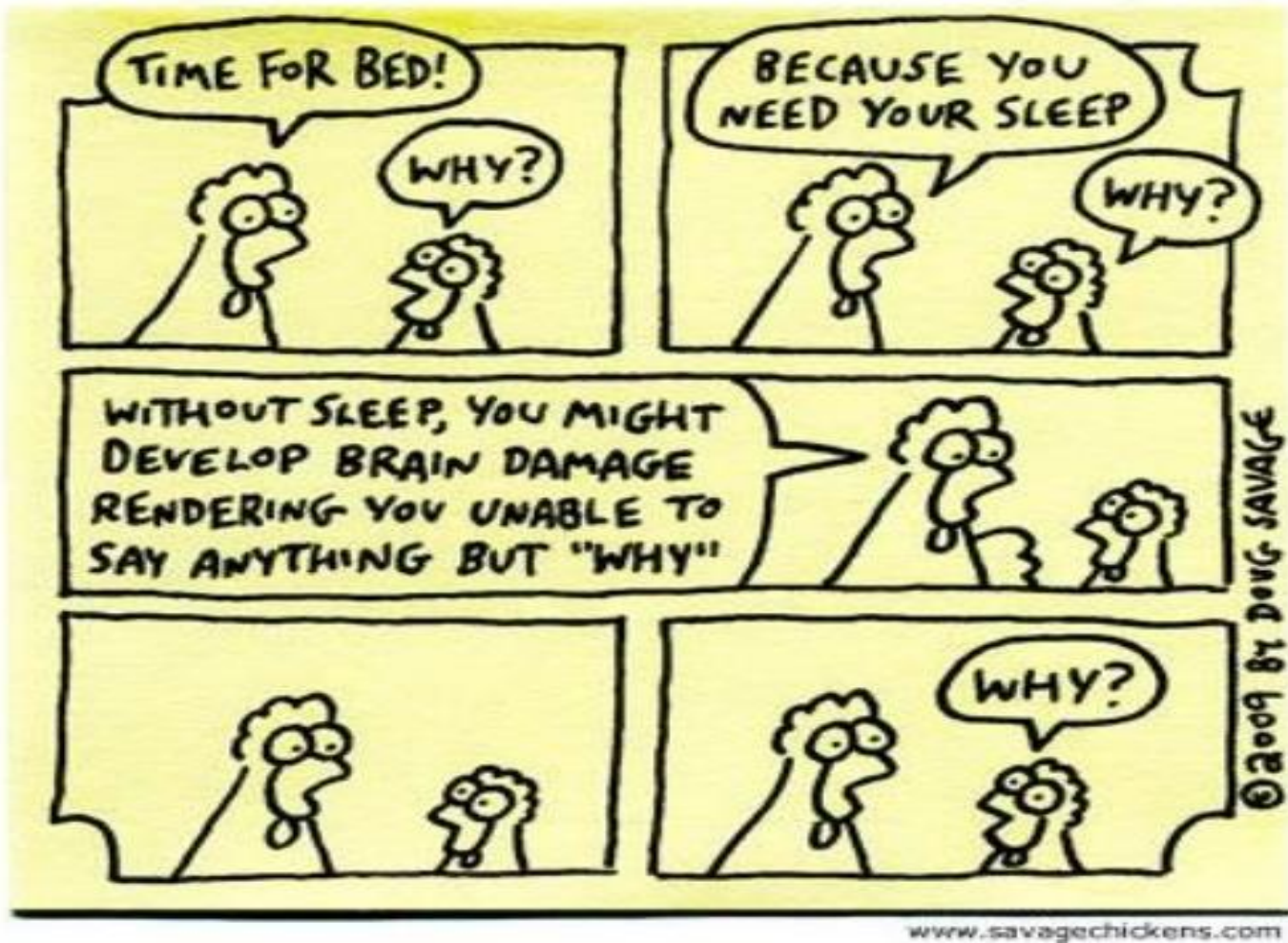
Future / desired situation

coaching

training

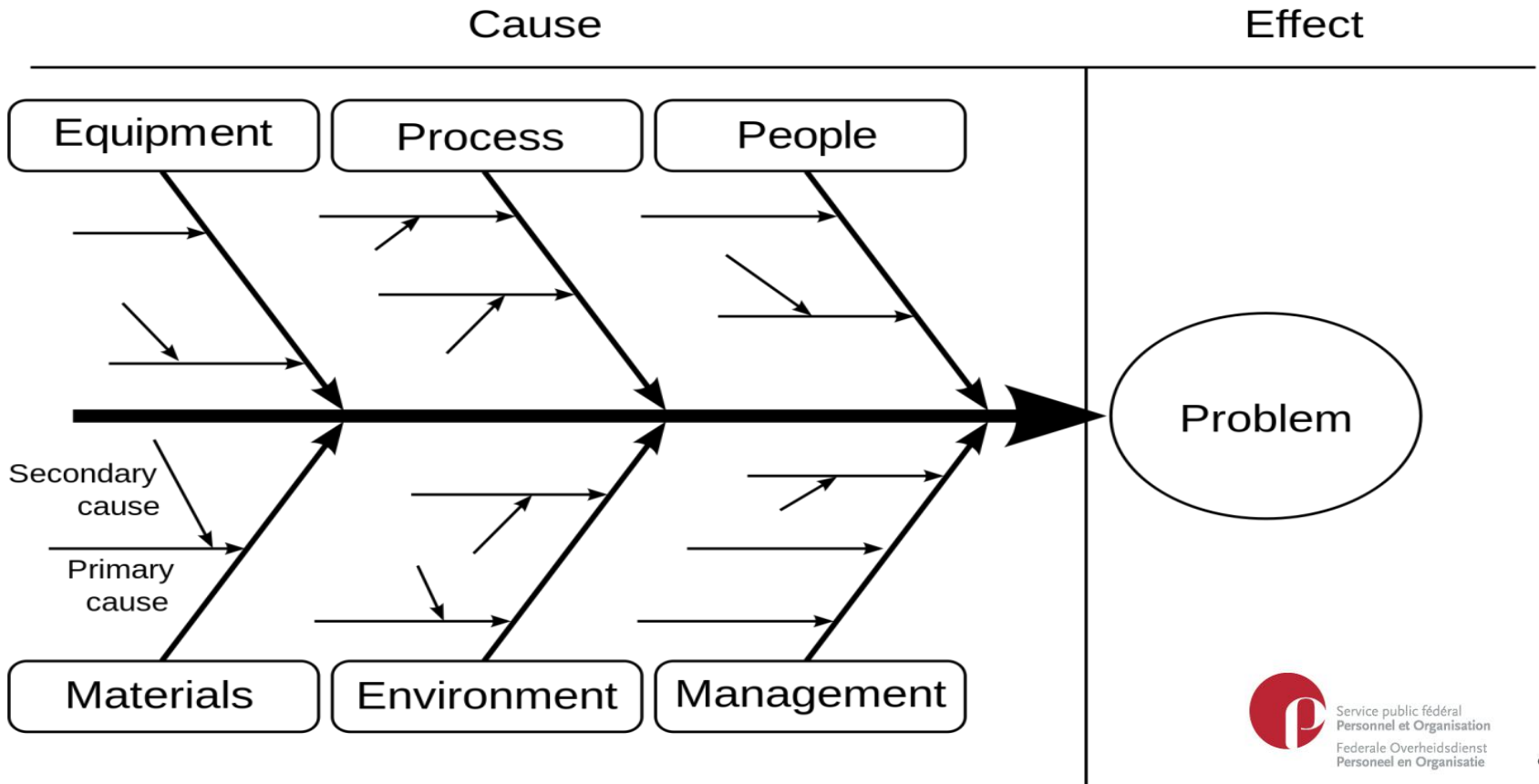Organizational changes

Hardware / logistics

On the job learning

Current situation

When all you have is a hammer,
everything looks like a nail.

what's in your TOOLBOX?

Training Needs Assessment
analyze at 4 different levels

```
        ┌─────────────────────────────┐
        │        goal / problem        │
        └─────────────────────────────┘
                      │
                      ▼
        ┌─────────────────────────────┐
        │        work situation        │
        └─────────────────────────────┘
                      │
                      ▼
        ┌─────────────────────────────┐
        │      knowledge & skills      │
        └─────────────────────────────┘
                      │
                      ▼
        ┌─────────────────────────────┐
        │      learning situation      │
        └─────────────────────────────┘
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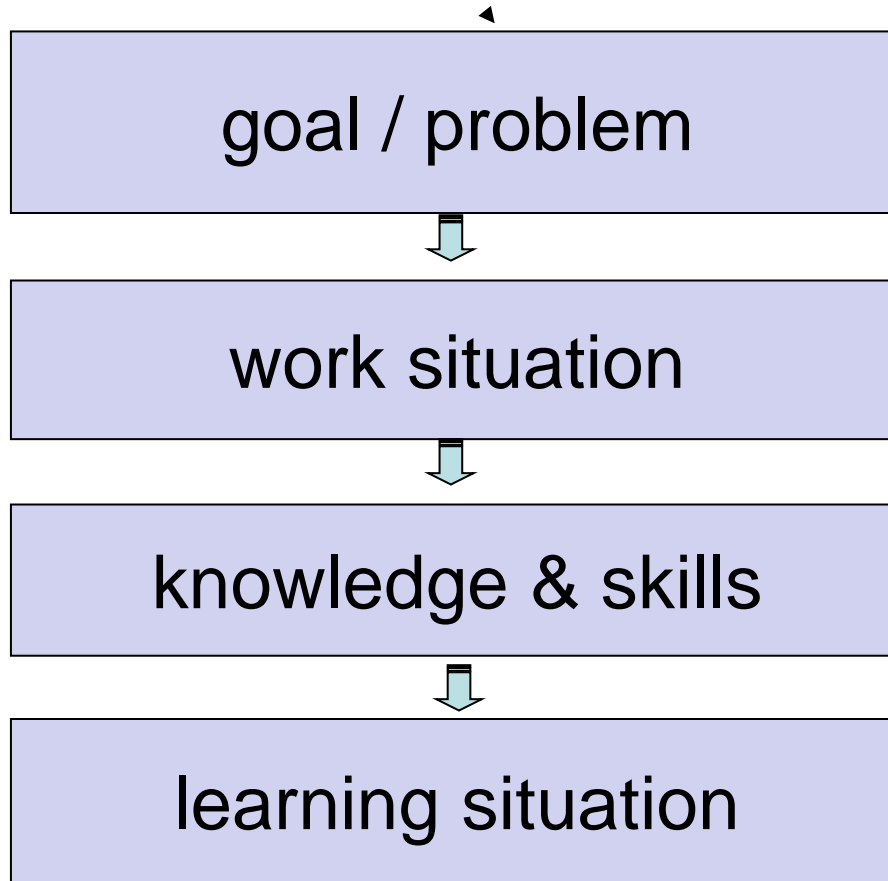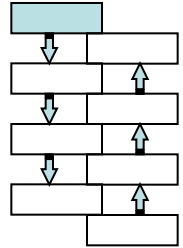
Problem /goal

- Learning processes are not goals in their own right, they are means to solve a problem, or achieve a goal
    - "An investment in learning is meaningful if a particular problem in the organization can be solved through the use of a planned learning process"
    - "Problem" = current or future ("if no action is taken")
    - "problem" = also "goal", "opportunity", "challenge",…

- **The first step is to formulate the problem as an achievable organization goal**

- These types of goal formulation are typically drawn up using organization concepts:

    E.g.: reducing absenteeism, reducing costs,…

- Method of solution has not yet been specified

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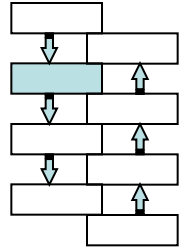
Work situation

- **There must be a clear picture of how the employee's work situation should be in order to achieve the desired goal**

- By examining what should change, the range of potential solutions is getting broader than just "training"

    - e.g.: changes in procedures & methods, assigning responsibilities, the use of aids & reference materials, methods of assessment & rewards,…

- Whether learning processes are meaningful depends on their contribution to the desired changes in the work.

- Changes in the work usually only occur when training is combined with or integrated in other measures

Skills
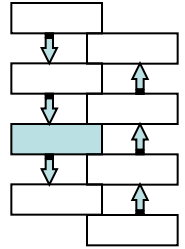
- Once there is a clear picture of the necessary changes in the work situation, the question arises

    - which skills are required to achieve these changes

    - Whether the employees alreay possess all of these skills; if not: which skills need to be developed (if possible)

- The product of the required learning processes must therefore be formulated in terms of skills & competences that should be acquired

- **The third step is the specification of concrete skills that employees need to acquire.**

Learning situations
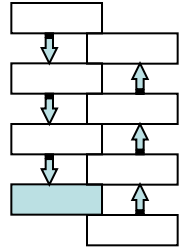
- The planned learning situations must:

  ➢ Give the participants in the learning process the opportunity to acquire the appropriate skills…

  ➢ … with which they can realize the required changes to the work situation,

  ➢ so the initial goal is achieved and the problem on which it was based is resolved.

Step 4: formulating objectives

- SMART =
  - Specific
  - Measurable
  - Attainable
  - Relevant
  - Time-bound

- Different types of objectives:
  - Goals (organizational results)
  - Competency objectives (learning outcome)
  - Learning objectives (learning output)

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Exercise!

Formulate a SMART objective

Prioritizing objectives

Priority = B x R   Importance x Feasability

Very important	4	Easily feasible	4
Important	3	Feasible	3
Less important	2	Difficult to realize	2
Not important at all	1	Very difficult to realize	1

Prioritizing objectives

Objective ('problem / challenge')	Solution ('bridge')	+	-	Priority / choice

not all competencies can (easily) be developed !

"Competencies are skills rendered visible through behaviour"

Ton van Dongen

behaviour

skills & knowledge

beliefs

personality

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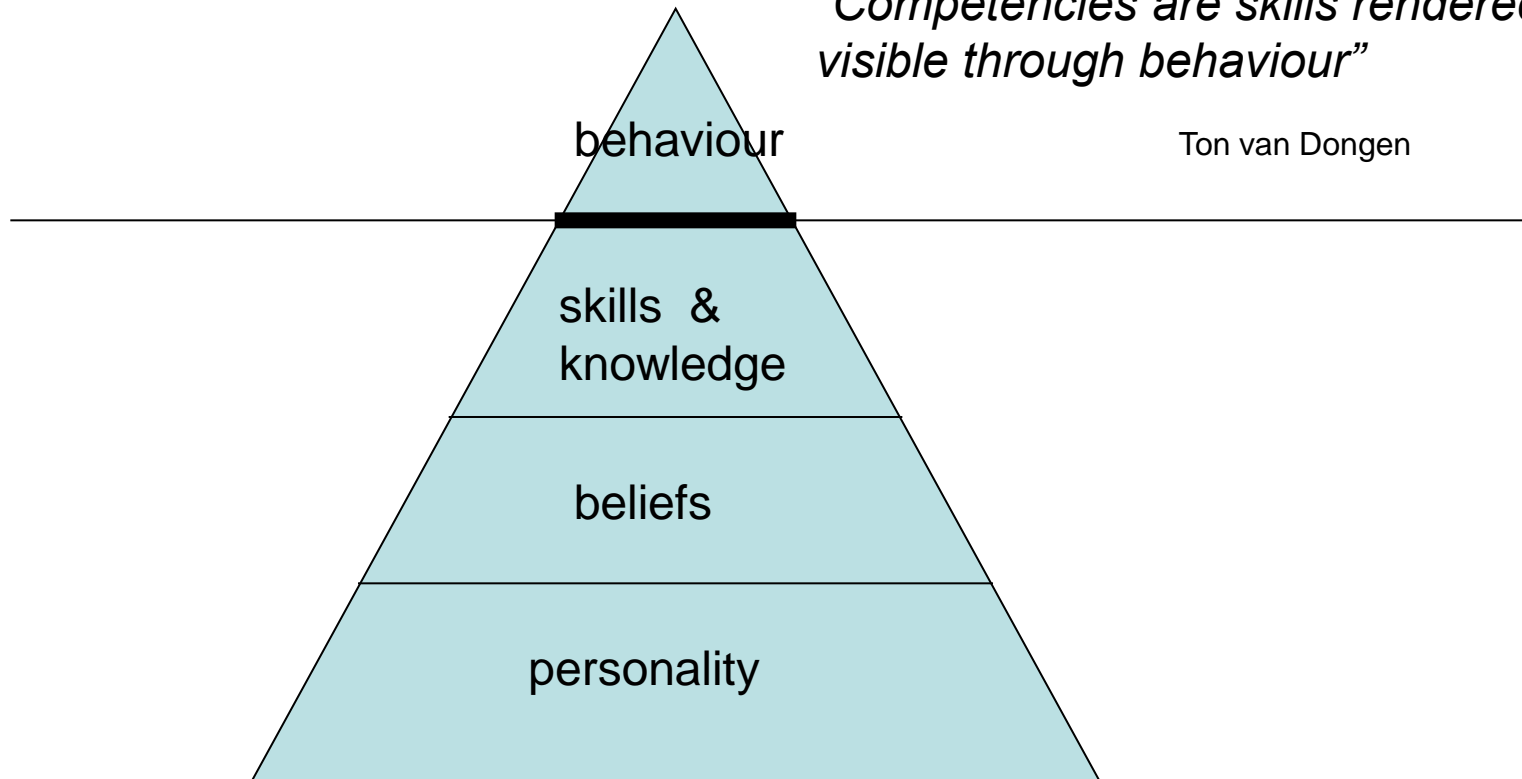
Step 5: reporting & contracting

- Reporting
  - Written vs oral
  - Objective, neutral
  - Imply stakeholder / client
  - Content:
    - TNA results
    - L&D action plan
    - Other actions necessary & prerequisites

- Contracting
  - Written agreement (« memorandum », « contract », « SLA »,…)
  - Specify each party's engagements & contributions
  - Include information on cost & timing

Training Needs Assessment
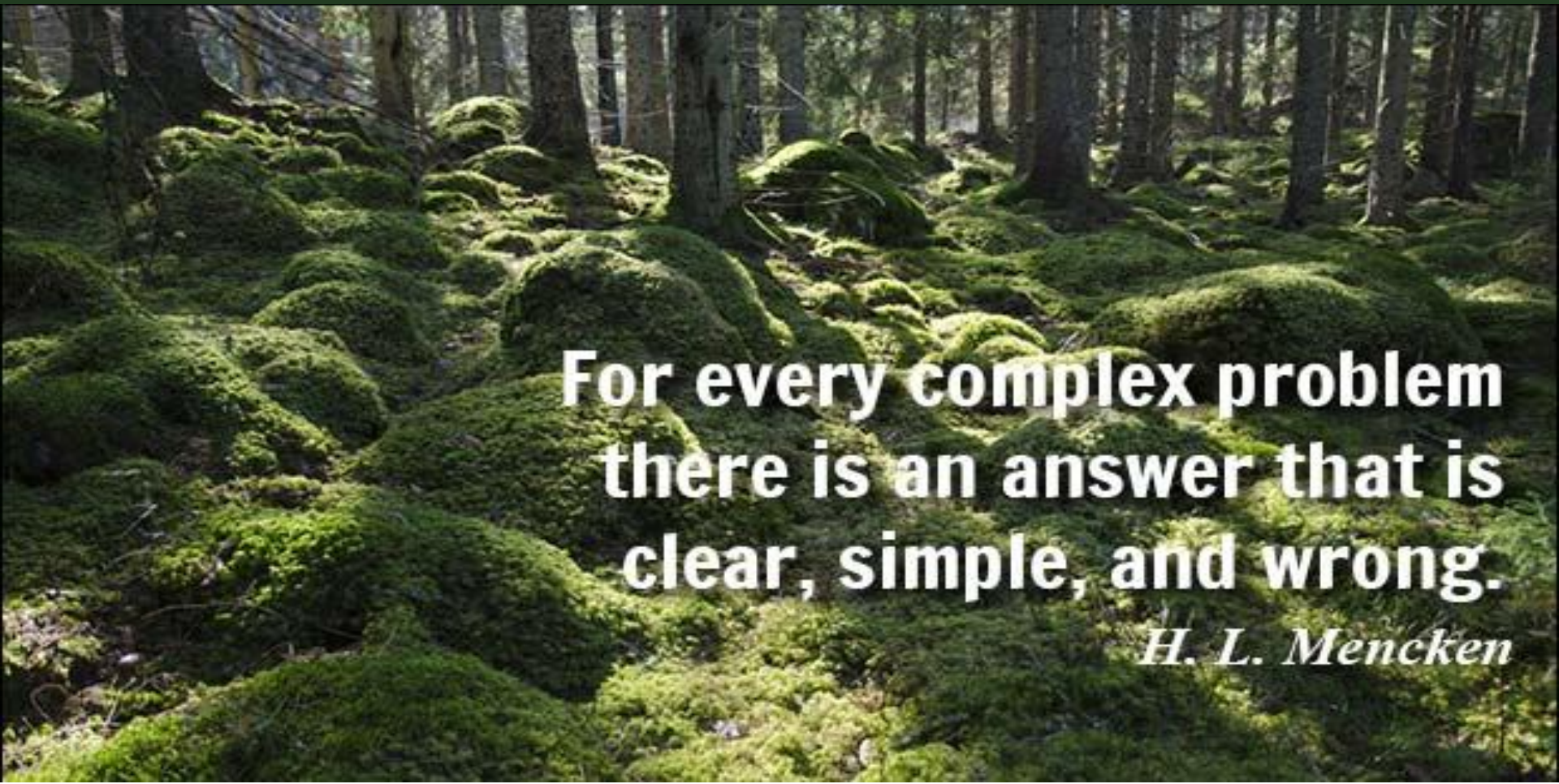
Challenge : "competency vs talent approach"

- Current TNA and the resulting training & learning interventions rely heavily on a competency-based approach

- A gap-bridging competency approach basically focusses on weaknesses instead of strengths

- Negative consequences: loss of motivation, creativity & talent

- **Training Needs Assessment methods & plans do not always take into account strengths & talents !**

To achieve success
develop your strengths
instead of eliminating
your weaknesses.

- Define your objectives in such a way that you know when you have reached them (SMART)

- Analyze and plan actions at different levels

For every complex problem there is an answer that is clear, simple, and wrong.

H. L. Mencken

- Plan before you ask

- Think before you ask

If you don't ask the right questions,

you won't get the right answers!

- Ask, ask, ask,…

Needs assessment

Evaluation

TRAINING & DEVELOPMENT

Exercise!

How do you evaluate?

Why evaluate?

Different stakeholders

- Political stakeholders
- Top Management
- Line Management / Team leaders
- HR(D) department
- Training provider / trainers / consultants
- 'students'

Different objectives

- Political objectives – Return on Investment requirements
- Management objectives – Quality Management - ROI
- Marketing & image reasons
- HR and HRD objectives
- Pedagogical objectives

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What do we evaluate?

- **Quantitative** approach (statistical data collection)
    - Number of participants
    - Course participation & absenteeism
    - Cost calculations (e.g. average training cost per participant)
    - Total number of training hours / training (man)days
    - Total training investment (% of total mass of salary)

- **Qualitative** approach (quality analysis)
    - **Proces** vs **effects**
    - **Results** vs **effects**
    - **Output** vs **outcome**

When do we evaluate?

- **Before** training

  « zero measurement » to assess the starting situation and enable pre-training/post-training comparison

- **During** training

  process evaluation in order to intervene when necessary

- **After** training

  delay depends on type of evaluation

When do we evaluate?

The **prior explicit specification of evaluation criteria** contributes to the following goals:

➤ It is clear from the outset what the learning process can and cannot achieve in an organization

➤ It is clear from the outset which measures must be taken in the work situation to produce changes in it

➤ It is simpler to design leaning situations that focus on reaching the desired results

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How do we evaluate?

	5. Return on Investment	
goal / problem	4. Impact	impact
↓		↑
work situation	3. Transfer	performance
↓		↑
knowledge & skills	2. Learning	learning results
↓		↑
learning situation	1. Reactions	process
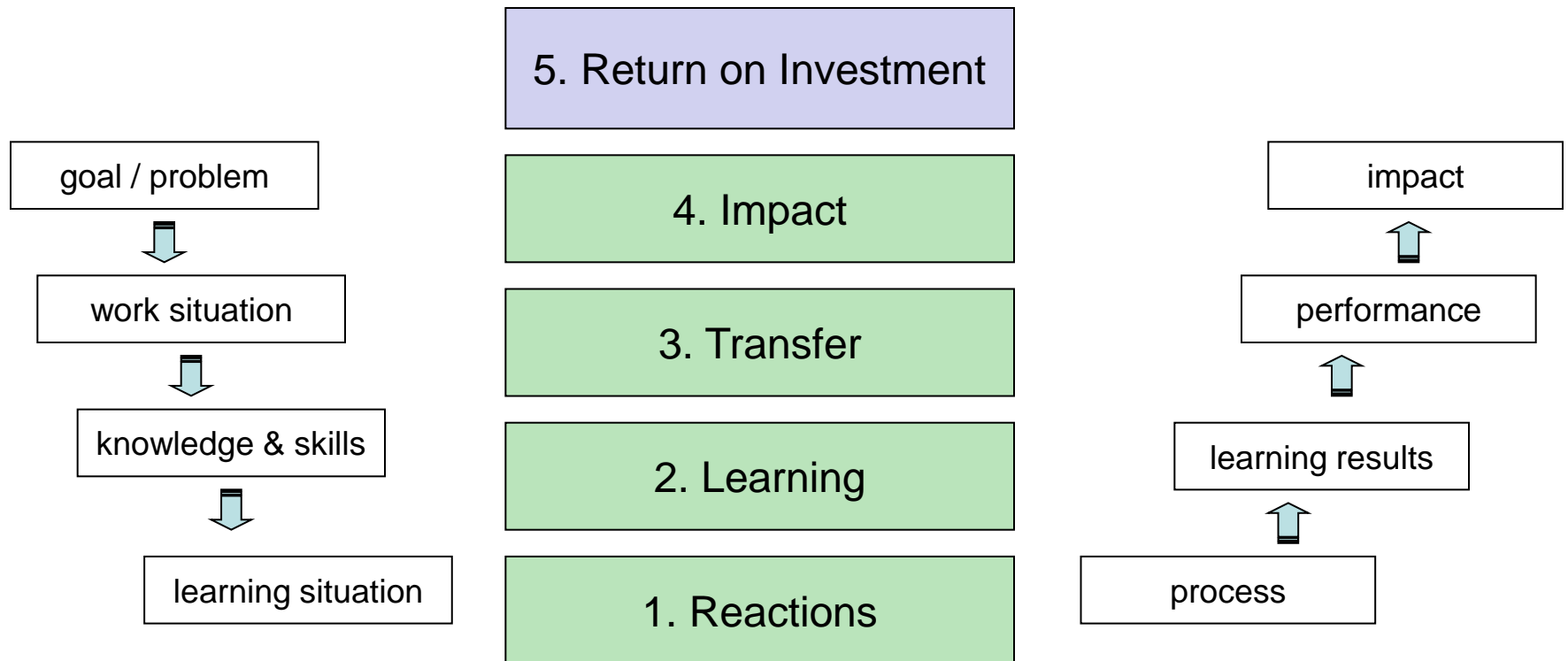
Source: Donald Kirkpatrick (4-levels), Joseph Kessels (8-field model), Jack Phillips (ROI)

THE NEW WORLD KIRKPATRICK MODEL

LEVEL 1
REACTION
- Engagement
- Relevance
- Customer satisfaction

LEVEL 2
LEARNING
- Knowledge
- Skills
- Attitude
- Confidence
- Commitment

MONITOR & ADJUST

Monitor
Reinforce
Encourage
On-the-job learning
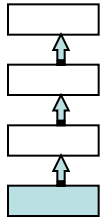Reward

LEVEL 3
BEHAVIOR

LEVEL 4
RESULTS
- Leading indicators
- Desired outcomes

How do we evaluate?
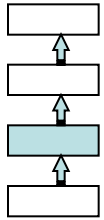## Level 1: Learning process ("Reaction")

- Central issue : **Are the planned learning situations suitable to achieve the required goals & objectives?**

- Some of the major issues related to the process include :
  - ➤ Sufficient opportunities for the participants to practice and master the skills
  - ➤ Sufficient feedback moments
  - ➤ A safe learning environment

- Information on the learning process can be gathered through observations or through written or verbal questioning of the participants *(e.g.: "happy sheets")*

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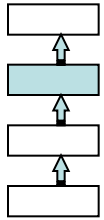
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How do we evaluate?
Level 2: Learning results   ("Knowledge & Skills")

- Central issue :

  Do participants master the required skills at the desired level / are they capable of using the skills ?

- To assess whether participants have gained the required skills they must be given the opportunity to prove this during a test.

- Conduct pre-test if possible / needed

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How do we evaluate?
## Level 3: Work Performance ("Transfer")

- Central issue :

  - **Are the skills applied in a work situation?**

  - **Does this help the required changes to be achieved in the work situation?**

- The question related to work behaviour / performance is whether the participant uses and applies the acquired skills, whether he/she has become more competent

- How to evaluate this?

  - Questioning participants, their superiors, colleagues, clients… (360°)

  - Using questionnaires or interviews

  - Observations in the work situation *(e.g. "mystery guest")*

  - Collection of data or products

How do we evaluate?
Level 4: Impact   ("organizational outcome")
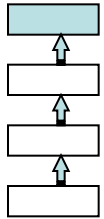
- Central issue : **Have the changes to the work situation solved the initial problem in the organization?**

- The indicators for the impact of a learning process on the initial problem can be determined from the original statement of the problem, if it was formulated in organizational terms.

   e.g.:   the number of absentees decreased by 20%

   total annual costs reduced by 10%

- The methods that are suitable for collecting data on the impact depends on the type of problem being investigated.

How do we evaluate?
Level 5: Return on Investment

- Central issue : **what is the final cost/benefit ratio?**

- Calculating ROI steps:
  - Calculate **cost of training programme** (trainer, facilities, course development, overhead costs, travelling costs, lost opportunity costs, etc)
  - Isolate **effects of training** and **calculate added value ("training benefit")**

$$\frac{\textbf{Training benefit}}{\textbf{Training cost}} \times 100 = \% \text{ of ROI}$$

  - If ROI = more than 100%, the benefit is +

from evaluating to **enhancing** Training **transfer** and **impact**

Training **transfer** and **impact**
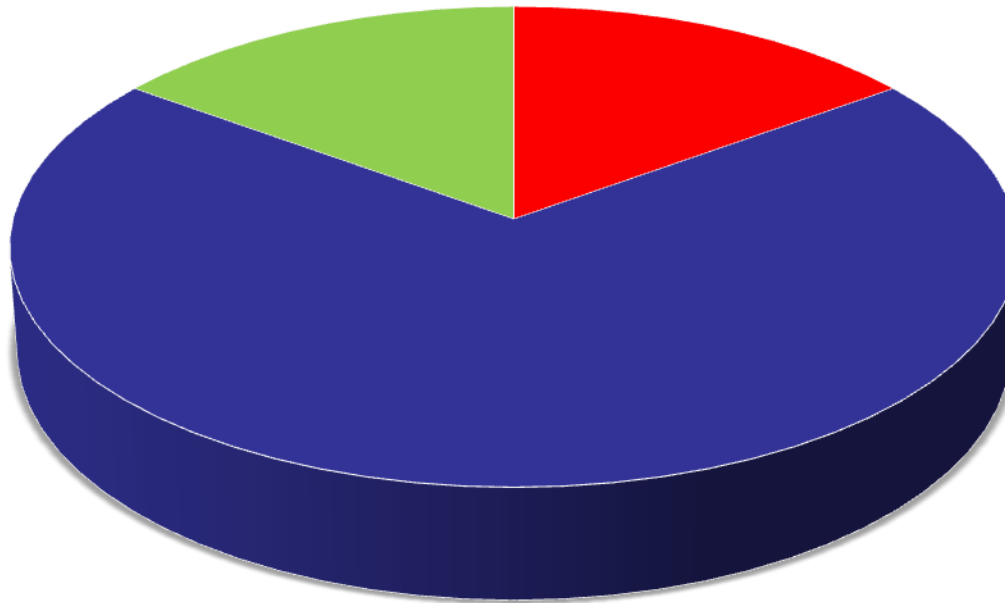
- Did not try new skills: 15%
- Tried new skills and failed: 70%
- Achieved sustained new behaviours: 15%

Source: Rob Brinkerhoff, *Telling Training's Story*, 2006

Causes of Training Failure

Preparation and Readiness	Learning Intervention	Application Environment
• Lack of senior management alignment and commitment	• Could not learn it	• Didn't get manager support
• Lack of preparation and focus	• Wanted to learn, but instruction failed	• Lack of peer support
	• Facilitator did bad job	• No incentive to use
		• Lack of feedback and coaching
20%	**10%**	**70 %**

Training **transfer** and **impact**

Major factors that enhance results:

- Involvement of the local supervisor / teamleader / manager

- The learning situation is as similar to the work situation as possible

- The trainer is familiar with the learners' working environment & job content

- Quality of the training needs analysis

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Needs Analysis & Evaluation Matrix

level	Current situation	Future desired situation	Evaluation indicators	Actions
Organization [strategic]				
Work situation [operational]				
Skills [competences]				
Learning situation [HRD]				

Exercise!

Case Study

Level 1 evaluation at TIFA

Each training is evaluated by participants and trainers at the end of the course

- paper based and online
- immediately after each training/test
- multiple choice questions and open end fields
- automatic treatment (scan + OCR software)

Level 1 evaluation at TIFA

Training quality is measured and the results are translated into **improvement actions**

- At least twice a year results are analysed by course project leader and discussed with Programme Manager

- Once a year results are translated into improvement actions and taken into account when determining new course offer

- Results also provide input for internal and external communication (e.g.: year report)

Level 2 evaluation at TIFA

Certification Training & Test
characteristics:

- **Minimum training duration** required (e.g.: 5 days for level A),

- **Formal test** after the training (evaluating the training objectives)

- **Direct impact** on the civil servants' careers (competence allowance, career advancement)

Level 2 evaluation at TIFA

Challenges:

- **Test results should reflect the real level of participants.** All other influences need to be ruled out.

- **Strict rules** are necessary to ensure correctness and objectivity regadering the correction process, group composition, linguistic issues, language uniformity, neutrality, etc.

- **Coherence between training objectives, training programme and test** is vital – use of a **taxonomy** is a must (Bloom)

- All course **objectives need to be measurable**!

- Problem/difficulty: **no pre-test available**

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Level 2 evaluation at TIFA

- **In the end: statistic analysis of test results**
  - Comparison of test results throughout different groups
  - Analysis of the difficulty of questions
  - Analysis of intervening factors « colouring » results

- **Creation of a detailed test report:**
  - All potential problems are mentioned / questions may be annuled
  - Trainers who created questions must answer the issues revealed by this report
  - TIFA test experts give recommendations to TIFA project leader and management as to whether or not certain questions need to be suppressed
  - Final decisions are validated

- **Transparence:**
  - all previous documents may be consulted by participants

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Level 3 & 4 evaluation at TIFA

1. **Pre-training assessment**

   - Questionnaires for visitors
   - Live interviews with visitors
   - Intake with Management and sample of participants

2. **Evaluation during training**

   - Skills & competency-linked: staff can show they possess adequate communication skills (tested during role plays)

3. **Post-training evaluation**

   - Happy sheet (reaction level) evaluation <u>immediately after</u> the course
   - Transfer & Impact analysis <u>4 months after end of course</u>
     - ✓ *Live interviews with visitors*
     - ✓ *Questionnaires for visitors*
     - ✓ *Interviews with Management*

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Level 3 & 4 evaluation at TIFA

If you want to **measure training impact:**

- **plan** the detailed evaluation method **from the start**
  (if you change your questions afterwards, comparing is no longer possible)

- **measure** not only afterwards, but also **before** any action is undertaken

- **measure at the right spot**, with the right people
  (e.g.: interviewing customers, not the staff's intentions)

- **involve** the (top)**management**, to get to the bottom of things

- 'Pure Training' impact cannot easily be isolated from **total project impact** (including material/organizational actions)

some last notes on "evaluation"…

*« If no one is really waiting for the results of 'evaluation'
or is willing to take action accordingly,
don't waste time and money on it! »*

***« Evaluation is a means to an end,
not an end. »***

*« Not everything that can be counted,
counts. »*

(Winston Churchill)

« We tend to measure what is easily measurable. »

See monitoring & assessment of training programmes as an **opportunity** instead of a problem

Clearly identify the *who, why, what, when and how* regarding evaluation

Plan in advance, not afterwards

Follow up on the results

Remember that **HRD & learning is more than 'training'**!

The ultimate goal of evaluation = increase transfer & impact

Take Away

*"an excellent way to increase learning
is to teach someone else what you have learnt"*
Kirkpatrick

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