Striving for the quality of learning through effective and efficient educational processes
– Basics and achievements

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Helsinki, Finland

Rabat, December 18-20, 2013

xxxx/2.9.2013/jan

Quality of learning through effective and efficient educational processes – Basics and achievements

Key questions for the presentation:

1. What is the professional quality all about in general in organizations?
2. What is quality, quality management and quality assurance in education?
3. How to recognize needs and expectations, and carry out performance evaluations?
4. How to enhance the effectiveness of education through modern means?
5. How to consider holistically human aspects in the educational processes?
6. What can be learnt from our practical examples of (a) the basic education and (b) the organization-specific training and education?

A challenging target: Building a bridge between the disciplines for mutual learning

Education discipline ← **Poorly interactions and mutual learning** → **Quality discipline**

Quality is said as crucial in education. Prevalent prejudice is that professionally planned quality issues are additional, unpleasant, frustrating, and painful.

Training and education are important issues of quality management. Quality experts are not familiar with professional education and training issues.

2

Simple basic questions

1. What does it mean that something is of <u>good quality</u>?

2. How does good quality is carried out <u>professionally</u>?
   - Generally in any organization's activities
   - Particularly in the field of education from the student's, school's (educational organization's), or nation's the point of view

3

Quality topic is present in society and its organizations

General observations:

❖ Good quality has proven worthwhile and beneficial in all areas of society and in all types of organizations. All appreciate genuine quality. All kinds of organizations invest in quality.

- Bad quality and errors are at least irritating and represent failures, dissatisfaction, and costs.

- Professional quality discipline has developed over the decades through the international expertise, and consist of the best practice principles, procedures, and frameworks.

- Good quality can not be achieved or bad quality removed by chance, with money or regulations.

❖ However:

- A lot of discussion in public indicate various forms of bad quality or lack of quality.

- Many cases demonstrate that measures taken in the name of quality have not lived up to promises and cannot be considered satisfactory but have led to criticism and even downright to frustration.

- There is also a lot of something superficial or downright questionable with regard to quality.

This is also valid in the field of education; educational organizations are no exceptions.

The essential question is not **what** you do but **how** it is done. We need to look into the essentials of genuine **quality basics**, and how they can be realized in practice in a natural way. We should understand what quality and its effective and efficient implementation really mean.

This is also the basis to consider quality measures professionally in the field of education.

4

Understanding the quality concept

There often are lengthy discussions about the definition and substance of the quality concept.

Quality is a word of general everyday language(*). It refers to the characteristics of something, and typically as measured against some other things, or being very good (excellent). Multi-mindedness is a self-contained character of the quality concept.

The concept quality has many definitions in the literature made by different experts, e.g.:

1. **Definitions based on product characteristics**. Quality means measurable and objective properties of a product.
2. **Definitions based on production performance**. Quality is fulfillment of the specified requirements. a rate of nonconforming units or rate of number of nonconformities.
3. **Financial value based definitions**. Quality is the use-value (utility) of an object, the ratio of use-value to price.
4. **Real economy value based definitions**. Quality of an item equals the real experienced and perceived benefit or advantage obtained by its user regardless of what is paid
5. **Philosophical and mythical definitions**. Quality is of excellent goodness (e.g. well-being or love) or luxury.

The international standard definition(**) of the quality concept is particularly for professional purposes of all kinds of business, production, servicing, and marketing. This definition is used at least in one hundred countries, different business areas, and more that million organizations.

5

(*) Oxford Dictionary (**) ISO 9000 standards
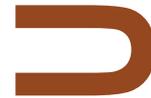
Quality vs. grade

Quality

The degree of fulfilling needs and expectations of all relevant stakeholders

Subjective perception of the different stakeholders and satisfaction
- Rational
- Non-rational (emotional)
- Irrational (spiritual)

Mainly tacit knowledge

Satisfaction, delight

Grade (of requirements)

Conformity to the specific requirements

Objective and rational evidence

Explicit knowledge
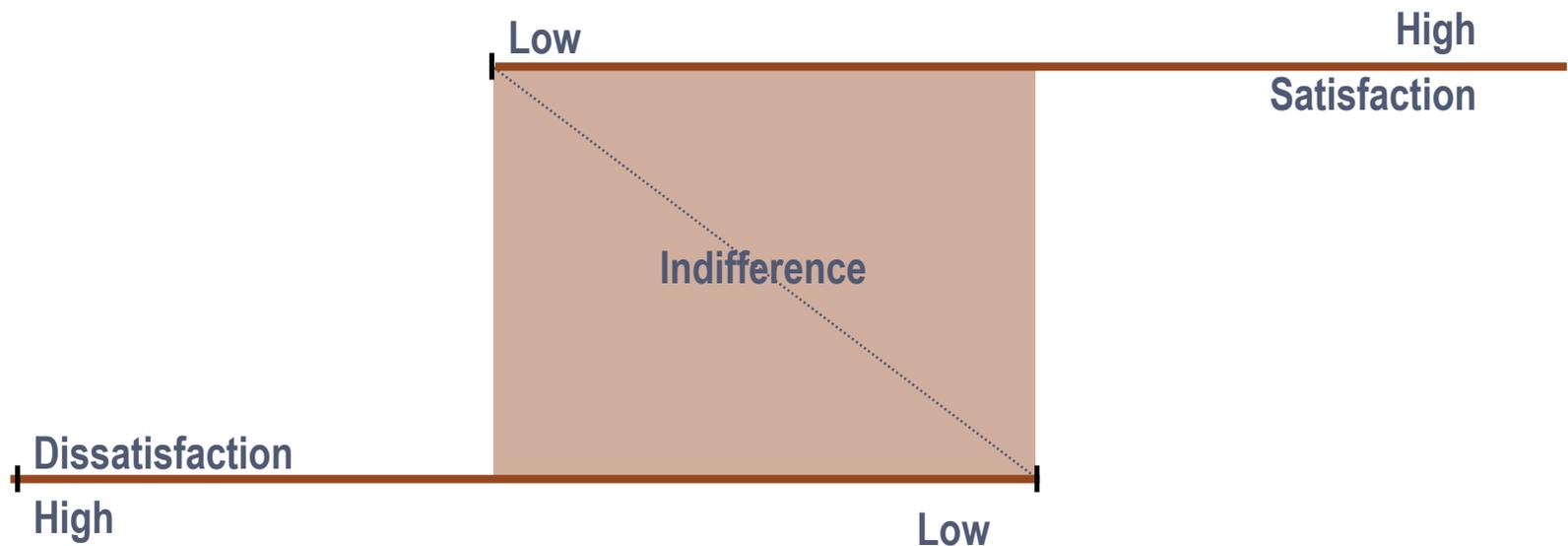
Compliance, as it should be

6

From quality to good quality

Characterizing performance of a particular item:

- **Performance** – Performing ability (activity or process) and its achievements (results)
  - **Grade** – Fulfilling general standard requirements
  - **Service level (agreed)** – Agreed requirements by contracting parties
- **Quality** – Performance – Degree of fulfilling needs and expectations of all stakeholders
  - **Excellence** – Quality excelling challenging references (benchmarks)
  - **Sustained success** – Result of the ability of an organization to achieve and maintain its objectives in the long term (through a quality management approach)

> ~~**Fulfilling minimum requirement**~~
>
> ~~**Being average**~~

Quality perception

High Satisfaction

Low

Dissatisfaction High

Low

Indifference

The opposite of satisfaction is not dissatisfaction. It is indifference.
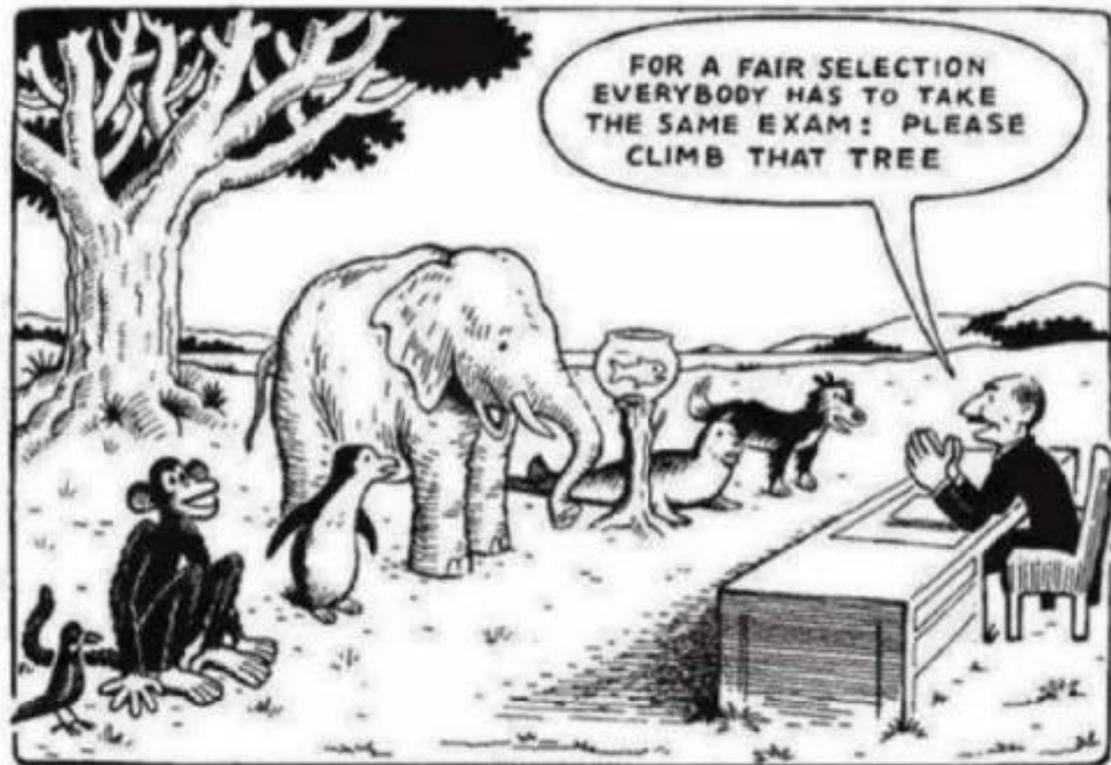The opposite of dissatisfaction is not satisfaction. It is indifference.

Indifference means unimportance, apathy, or lack of care, concern or interest.
You can't see any difference.

The right needs and expectations provide the basis for all quality activities and satisfaction

A key question for quality:

How can we realize the right needs and expectations?

The law of satisfaction (*): "*If you treat everyone the same, what varies is satisfaction. To achieve equal satisfaction, you must vary treatment*".

For a fair selection everybody has to take the same exam: please climb that tree

Our Education System

4119/22.8.2013/jan   (*) Kenneth Johnston   (Ref.: http://truenomads.com/2013/06/the-problem-with-the-us-education-system/)

Quality, quality management, and quality assurance

Quality (Q): Degree to which a set of inherent characteristics fulfills *needs and expectations*
- The term quality can be used with adjectives such as poor, good or excellent.
- Inherent, as opposed to assigned, means existing in something, especially as a permanent characteristic.
- Requirements are generated by different interested parties (organizational stakeholders)

Quality management (QM): Coordinated activities to *direct and control* an *organization* with regard to quality.
- Direction and control with regard to quality includes establishment of the policy and objectives, planning, control, assurance and improvement.
- Quality management is not management of quality but quality of management.

Quality assurance (QA): A part of quality management focused on providing confidence among an organization's stakeholders that quality requirements will be fulfilled.
- Quality assurance is related to *communication* between an organization and its stakeholders.

10

Tuning the basic mindset for quality:
Quality management principles (QMPs)

Recognized and internationally standardized universal quality management principles (QMPs)(*)

1. Customer focus
2. Leadership
3. Engagement of people
4. Process approach
5. Improvement
6. Evidence-based decision making
7. Relationship management

Professional quality approaches in the field of education should also follow the universal quality management principles.

Quality management, Performance improvement and organizational excellence

QMPs are fundamental truths or propositions that serve as the foundation for a system of belief or behavior, or for a chain of reasoning for the professional quality management.

11

Quality and quality management in education

Quality:
"degree to which a set of inherent characteristics (of <u>something</u>) fulfills <u>needs and expectations</u>"

Educational organization

Stakeholder (e.g. learner)

Outcome (lessons learnt, learning)
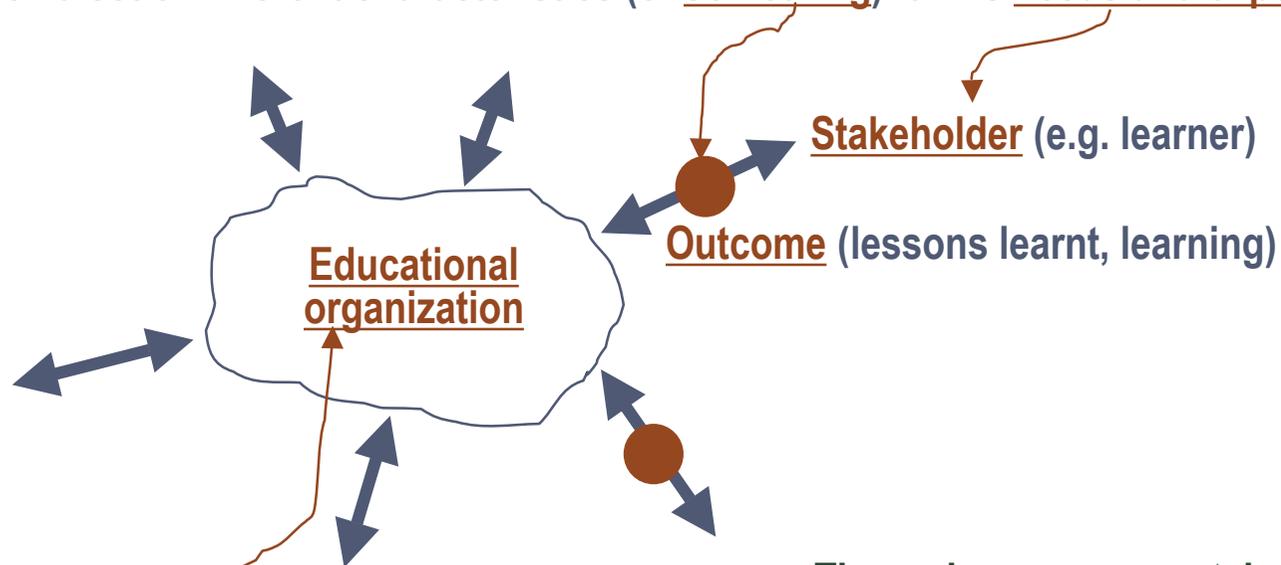
Quality management:
"coordinated activities to direct and control <u>an organization</u> with regard to quality"

There always are a certain degree of quality and quality management in all organizations.
There always are possibilities for improving quality through enhancing the effectiveness and efficiency of quality management.

4122/17.8.2013/jan

Common structure for a systematic approach of quality management in an education organization

Quality management in an education organization:

1.-3. Introductory issues
4. Context of the organization
    4.1 Understanding of the organization and its context
    4.2 Understanding the needs and expectations of interested parties
    4.3 Determining the scope of the quality management system
    4.4 Quality management system
5. Leadership
    5.1 Leadership and commitment
    5.2 Policy
    5.3 Organizational roles, responsibilities and authorities
6 Planning
    6.1 Actions to address risks and opportunities
    6.2 Quality objectives and planning to achieve them

7. Support
    7.1 Resources
    7.2 Competence
    7.3 Awareness
    7.4 Communication
    7.5 Documented information
        7.5.1 General
        7.5.2 Creating and updating
        7.5.3 Control of documented Information
8. Operation
    8.1 Operational planning and control
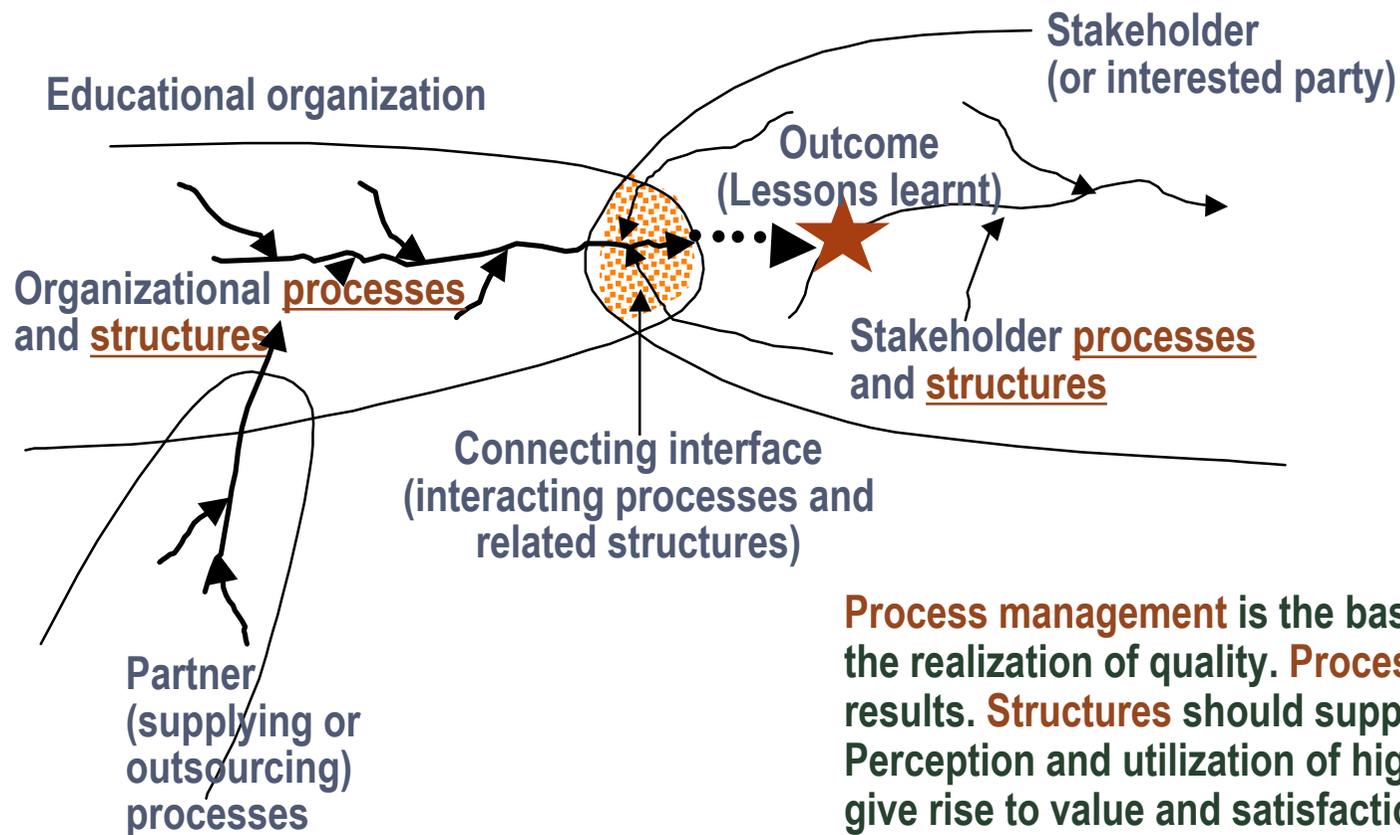**9. Performance evaluation**
    9.1 Monitoring, measurement, analysis and evaluation
    9.2 Internal Audit
    9.3 Management review
10. Improvement
    10.1 Nonconformity and corrective action
    10.2 Continual improvement

13

4123/28.10.2012/jan

(Ref.: ISO Directives Annex SL, and ISO 9001 Draft 2013)

Learning is the the result co-created (service) by the teaching and learning processes

Connection of an education organization and its stakeholder:

Educational organization

Stakeholder (or interested party)

Outcome (Lessons learnt)

Organizational **processes** and **structures**

Stakeholder **processes** and **structures**

Connecting interface (interacting processes and related structures)

Partner (supplying or outsourcing) processes

Process management is the basic prerequisite for the realization of quality. **Process** is activities with results. **Structures** should support the processes. Perception and utilization of high-quality outcome give rise to value and satisfaction.

14

Three major learning provisioning channels of the teaching processes

Learning channels:

- G: Learning through teaching materials (e.g. text books)
- H: Learning through human interactions (teachers, colleagues, mentors, etc.)
- A: Learning through automatic means (e.g. internet, social media)

The points within the triangle represent different cases of learning provision with different characteristics.
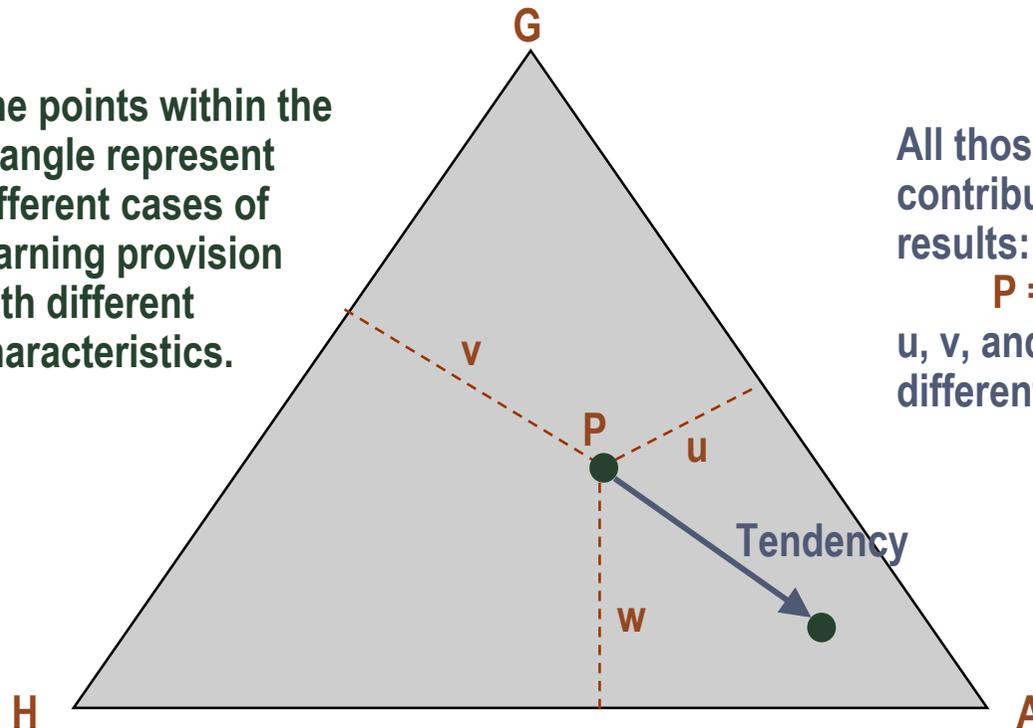
All those learning channels create their contributions to the composite learning results:

$$P = uH + vA + wG$$

u, v, and w are contributory portions of different learning provision elements

G

v

P

u

Tendency

w

H

A

Challenges of quality in a large variety of educational environments and with different needs and expectations

Challenging quality in established approaches of education and learning in a broad sense:

- General education from **basic schools** to **universities**
    - ✓ Preparing for the citizenship and working life in the society and world
- Training and education of young people in **vocational schools**
    - ✓ Preparing for an occupation and profession for the needs and expectations of the society and its organizations and person's career development
- Training and education in **adult education centers**
    - ✓ Getting specialized knowledge and skills for citizenship and wellbeing
- Training and education by **third sector organizations** (e.g. sport clubs, youth centers, associations, etc.)
    - ✓ Developing skills and attitudes
- Training and education by **educational companies and consultants**
    - ✓ Getting specialized knowledge and skills and networking
- **Self-learning** as an individual living activity
- **Organization-internal** training, education and learning of an organization's leaders and employees
    - ✓ Preparing for the needs and expectations of the business of an organization and person's career development

Concepts, principles, and practices of the general quality discipline may be applied in all these cases although these educational areas and their specific needs and expectations are different. This also ensures mutual learning.

16

Essential for the quality of education: Recognizing relevant needs and expectations

Challenges for the general education and learning:

The four pillars of education:
- Learning to know
- Learning to do
- Learning to live together
- Learning to be

Tensions / dilemmas to overcome:
- Global and local
- Universal and individual
- Tradition and modernity
- Long-term and short-term
- Competition and equality
- Expansion of knowledge and human capacity to assimilate it
- Spiritual and material

Basic learning needs:
- Learning tools: literacy, oral expression, numeracy, problem solving, etc.
- Learning contents: knowledge, skills, values, attitudes, etc

The broad scope of learning needs :
- Ethics and culture
- Science and technology
- Economy and society

> **Learning challenges in the different scopes:**
> - Life-time learning of individuals
> - Continual learning of the society
> - Continual learning of organizations

17

Performance evaluations of the educational activities and organizations, and the educational results

Performance evaluations are the key issues of established quality management for controlling and improving operations within organizations and providing quality assurance to organizations' stakeholders. This includes:

1. **Strategic self-assessment** of the whole **organizations**:
   - → For strategic decisions and enhancing organizational performance
   - → Major models and methodologies are:
     - **Excellence models:** Focus on organizational learning, process refining and integration
     - **Maturity models:** Focus on fulfilling prescribed performance criteria
2. **Operational evaluation** and auditing of the individual **processes**
   - → For performance monitoring, control and diagnostics, and for performance improvement and quality assurance

Such practices of evaluation are not widely established in the field of education.

The evaluation of the effectiveness and efficiency of educational activities (organizational systems and processes) is fundamentally different from the evaluation of educational results.

18

General approaches for evaluating and comparing educational activities and their results

- **UNESCO EFA** (Education for all). GEQAF (General education quality/diagnostic framework): The education system and learning environment; targets, structure and functioning of the education. LLECE (Latin American laboratory for assessment of the quality of education). SACMEQ (The Southern and Eastern Africa consortium for monitoring educational quality)
- **OECD PISA** (The programme for international student assessment): Assessment of the 15-year-old students' scholastic performance on mathematics, science and reading
- **TIMSS** (Trends in international mathematics and science study): Assessment of the fourth and eighth grade students' knowledge in mathematics and science, and **PIRLS** (Progress in international reading literacy study): Assessment of the 4th grade students' reading literacy
- **EIU** (The Economist intelligence unit) **Learning Curve**: Analysis of the educational systems in a broad sense
- **Baldrige approach**: Assessment of the comprehensive performance of educational organizations
- **The Bologna process**: Approach to ensure comparability in the standards and quality of higher education qualifications and university quality assurance
- **EQAVET** (the European quality assurance in vocational education and training)
- **ISO and IEC standardization** on the education management systems (ISO 29990:2010, ISO/IEC CD 36001, ISO/WD 18420)
- **National standardization**, e.g. NP 4512:2012 - A Portuguese management system standard fostering quality, innovation and technology in vocational education and training
- **Various** international and national assessments, classifications, and quality awards, such as universities, polytechnics, colleges, vocational schools, and educational programs

19

Criticism against current approaches in providing training and education

Practical experiences and recognized research references prove that **current training and education approaches do not provide effective solutions and results (*).**
  - ➢ Traditional education programs and courses, and applied quality practices
  - ➢ Early solutions of the e-learning technology, e.g.:
    - SCORM (the Sharable Content Object Reference Model)
    - AIC (The Aviation Industry Computer-Based Training)
    - SingCore (Singapore-defined standard for metadata to tag learning objects and assets)
    - Organization-internal or topic-specific e-learning systems

Many formalized learning systems are too expensive, learning too boring, search of material (learning objects) too cumbersome, and reusable objects not really reusable.

Quality management in education is immature and superficial (e.g. quality assurance according to the Bologna process).

It has been suggested that **old learning theories and traditions** utilized until now in the training and education, including:
  - ➢ behaviorism / objectivism, cognitivism / pragmatism, and constructivism / interpretivism should be replaced with new ones

20

(*) Ref. e.g. Stephen Downes and George Siemens

Old learning theories

• **Cognitivism** takes a computer-like information processing model. Learning is viewed as a process of inputs, managed in short term memory, and coded for long-term recall. Knowledge is viewed as symbolic mental constructs in the learner's mind, and the learning process is the means by which these symbolic representations are committed to memory.

• **Pragmatism** (similar to cognitivism) states that reality is interpreted, and knowledge is negotiated through experience and thinking.

• **Behaviorism** and cognitivism view knowledge as external to the learner and the learning process as the act of internalizing knowledge.

• **Objectivism** (similar to behaviorism) states that reality is external and is objective, and knowledge is gained through experiences.

• **Constructivism** suggests that learners create knowledge as they attempt to understand their experiences. Constructivism assumes that learners are not empty vessels to be filled with knowledge. Instead, learners are actively attempting to create meaning. Learners often select and pursue their own learning. Constructivist principles acknowledge that real-life learning is messy and complex.

• **Interpretivism** (similar to constructivism) states that reality is internal, and knowledge is constructed.

Paradox of formal / informal learning

Jay Cross

The spending / outcomes paradox
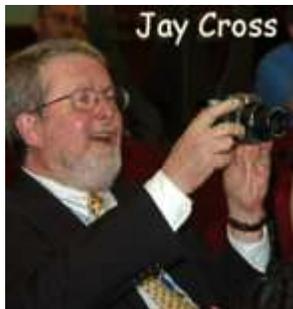
Formal learning
•**Education programmes**
•**Courses**
•**Textbooks**

Spending   Learning
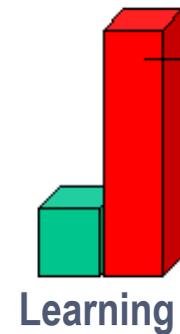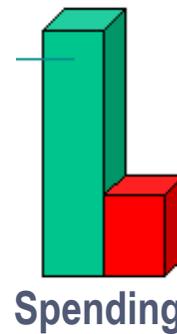
Informal learning
•**Every day activities**
•**Co-learning with others in person or via web**
•**Action learning**
•**Self-organized learning**
•**Mentors**

Sugata Mitra

New learning environments, social learning, schools in clouds, open learning resources, e.g.
- SOLE (Self-Organized Learning Environment)
- MOOC (Massive open online course), Udacity, ...
- Angry Birds education

(Ref.: Jay Cross ja Sugata Mitra)

Interacting and collaborating, keys for the new learning

"The best learning happens in real life with real problems and real people and not in classrooms." (*)

"Cappuccino U is a metaphor for a new approach to learning based on community, networking, self-study, distance education, and technology. The Third Place, the coffee shop where people gather to work and chat, we can transpose it to libraries, hotels, and other locations (including our homes) where we might work and meet with other people, or may be alone in a crowd – or just alone." (**)

"The 3rd place hosts the regular, voluntary, informal, and happily anticipated gatherings of individuals beyond the realms of home and work." (***)

23

(*) Charles Handy, (**) Jay Cross http://www.youtube.com/watch?v=NIETGJ0mnno (***) Ray Oldenburg

Creating new shared knowledge through the "Ba" of collaborative learning

Knowledge

Individual context

Individual context

Shared context

Ba:
(originating+dialoguing+systemizing+exercizing)

Ba = A shared space for emerging relationships

2690/14.2.2013/jan   (Ref.: Nonaka)
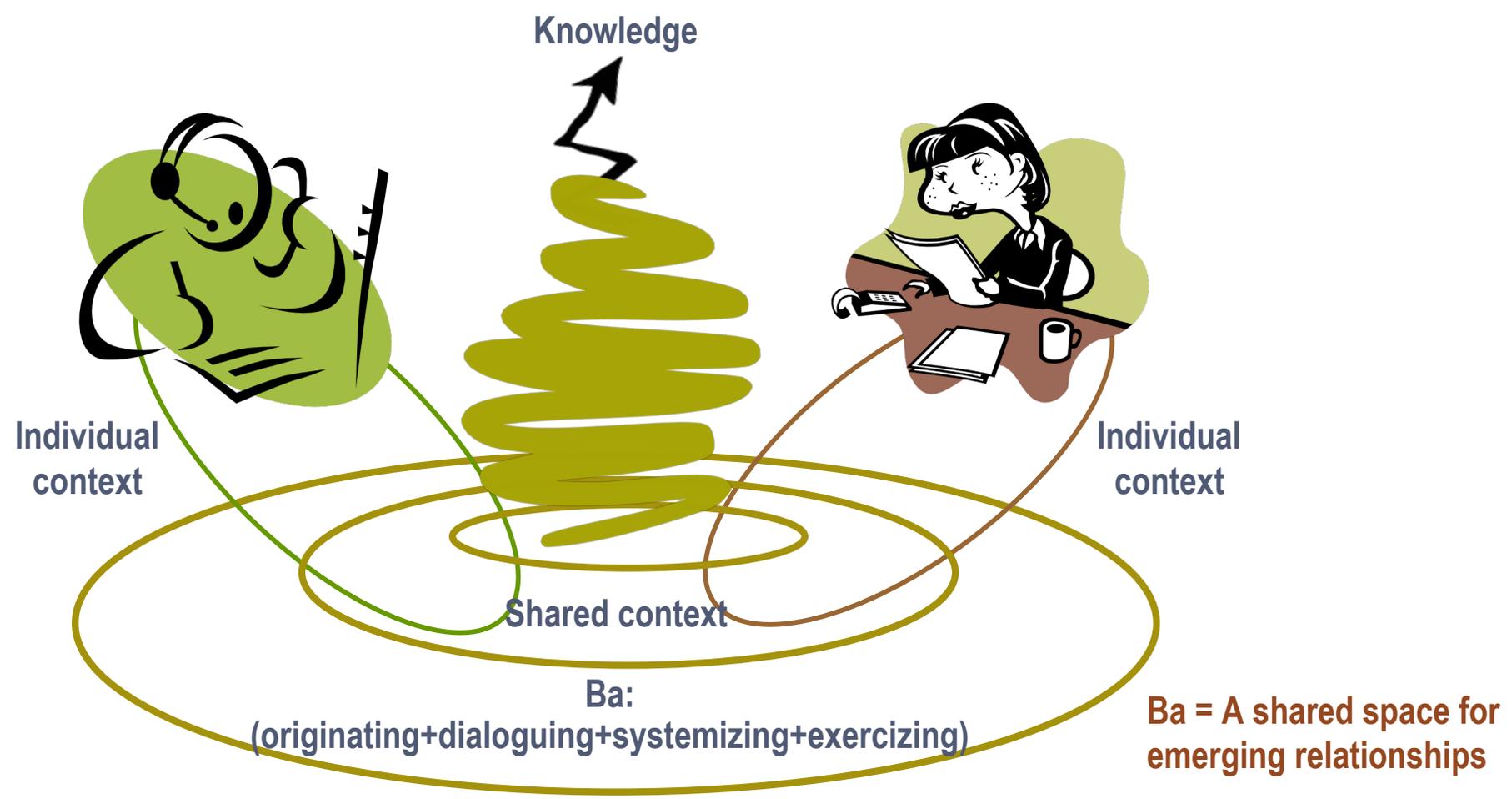
Collaborative learning in a networked environment

Target: Effective learning in networks

(2) Degree of interactivity between network members

Community

(3) Degree of sharing knowledge within the network

Personal

(1) Degree of connectivity among network members

m ←→ m   Low   High

0 ←→ 0

4132/1.10.2013/jan   (Ref.: Gloor)
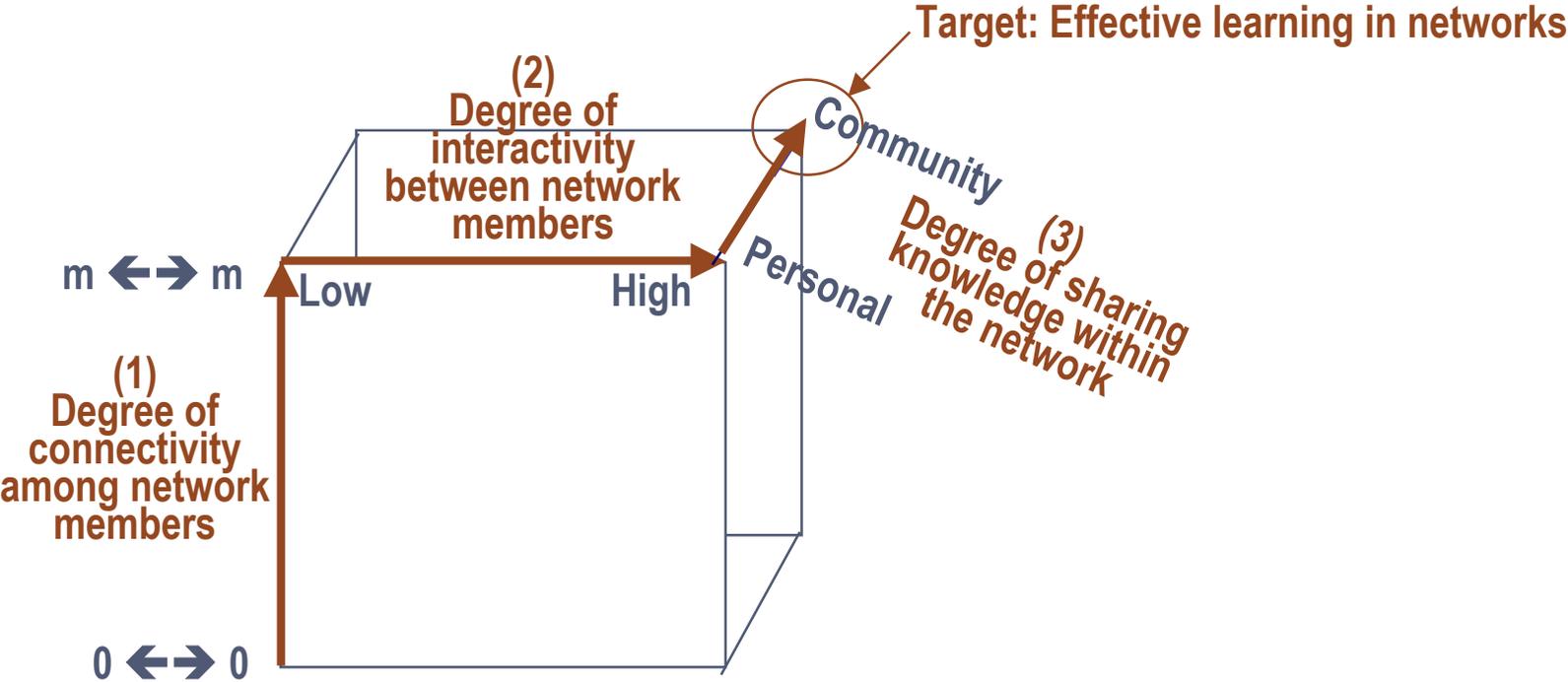
Learning through collaboration leads to reinforcing engagement

Understanding

Acceptance

Involvement

Engagement

4133/15.1.2013/jan   (Ref. K. Helin)
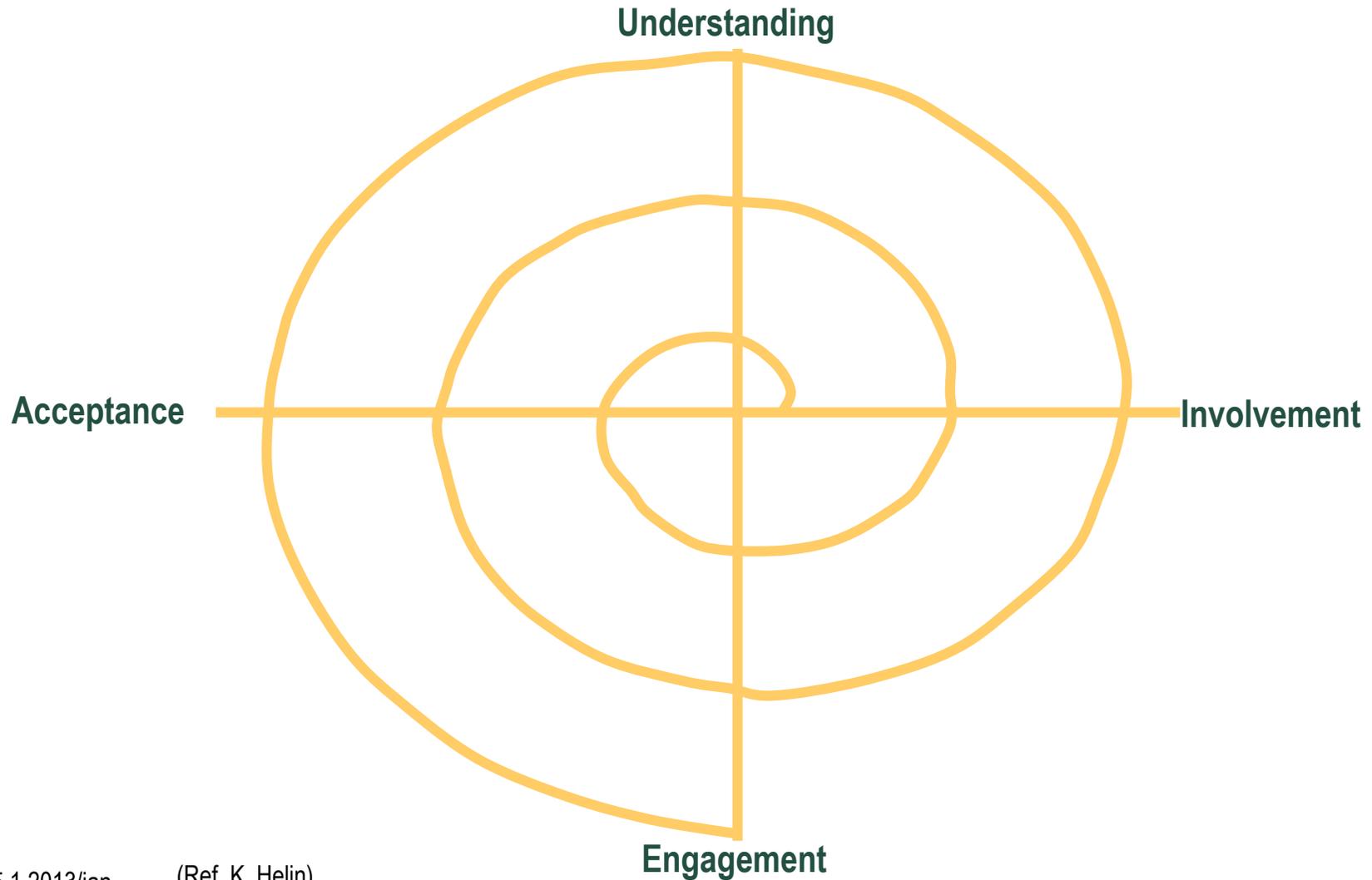
Human aspects in education

Students, teachers, school managers, authorities, etc. have their own individual characteristics.

All they experience their position in their own way, and thus have an effect learning results.
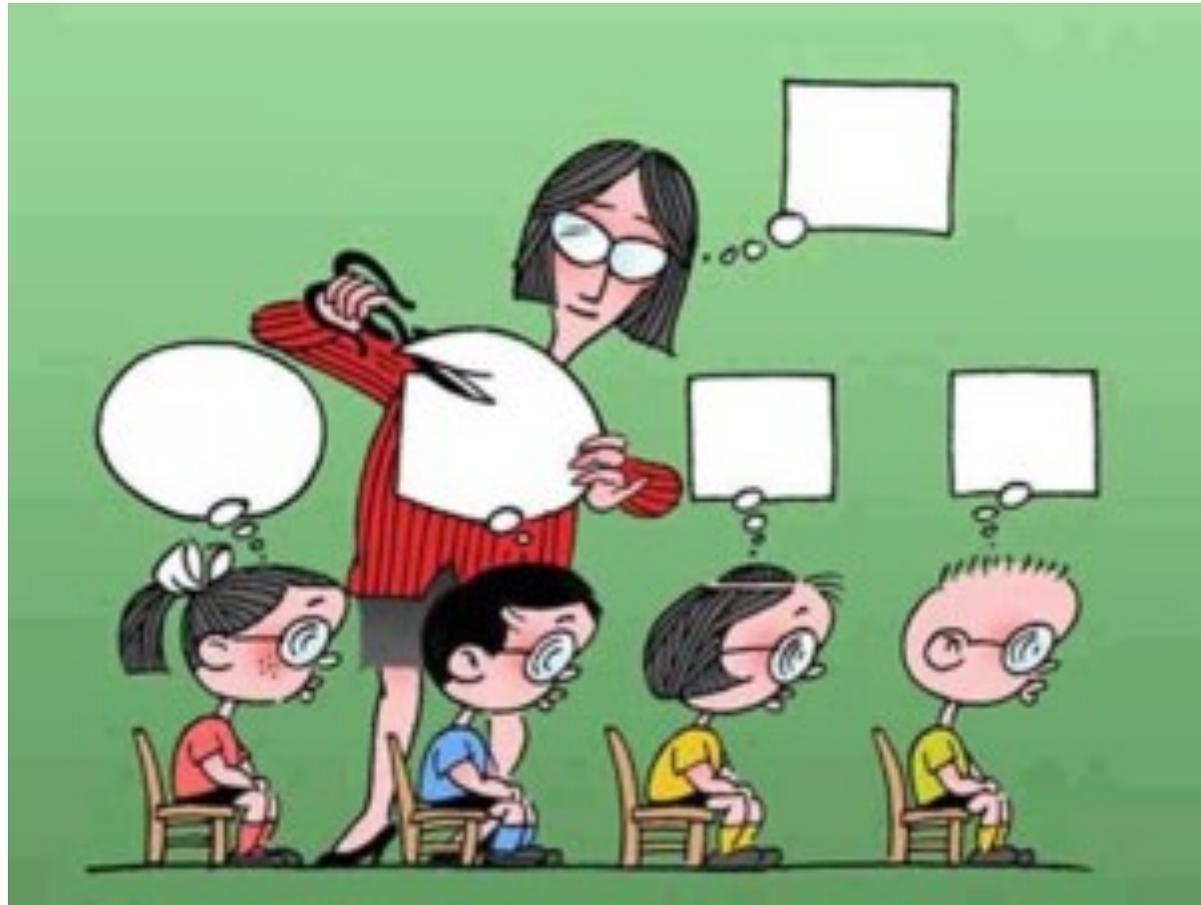
A person holistically in teaching and learning processes

External explicit process: process targets and needs

Physical body (Soma) Explicit knowledge and information

Internal mental and spiritual process:
- appreciations (values)
- feelings

Tacit knowledge

Consciousness (Awareness)

Sub-consciousness

Collective consciousness and unconsciousness

Process commitment
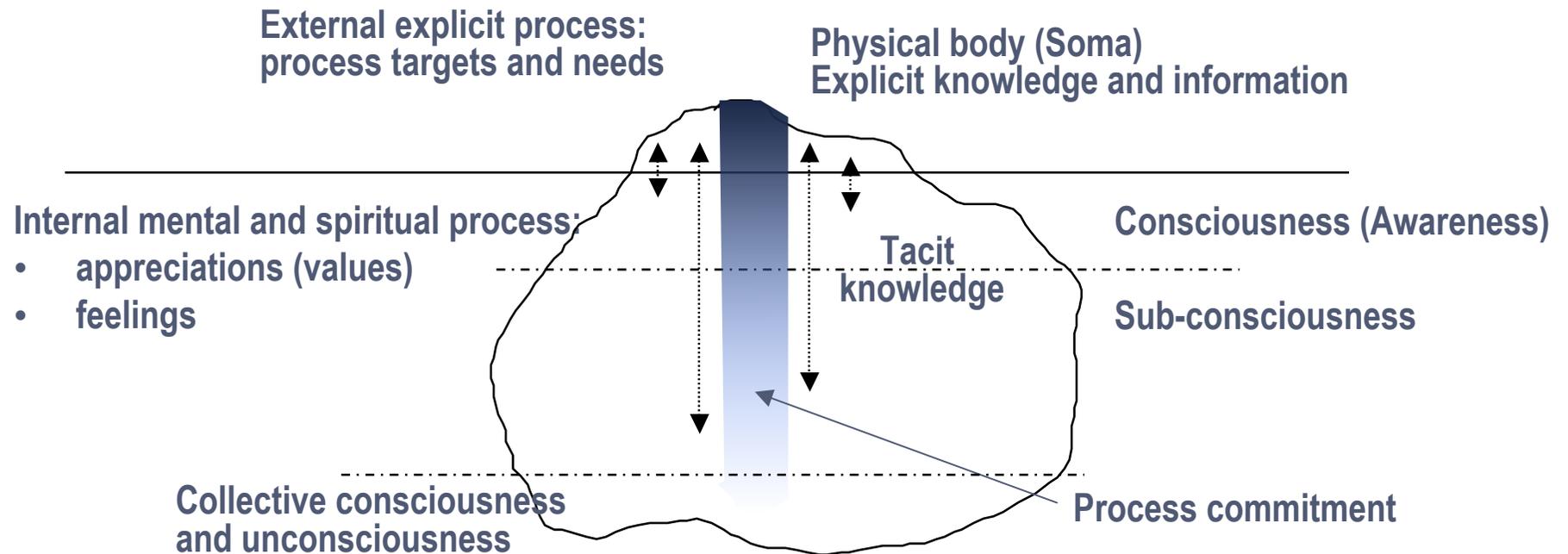
Holistic targets:
(1) creativity (joy of thinking)
(2) physical activity (joy of physical doing)
(3) sociality (joy of sharing pleasure and pain with colleagues)

4135/17.8.2013/jan   (ref.: Shusterman, Nishibori)

Practical examples from Finland

(a) Development of the basic level education orientation in Finland:
- Long-term national contributions to establishing a nation-wide education system
- Good results in international evaluations and comparisons
- Planning and piloting to meet new challenges: Educational approach based on positive psychology and character strength pedagogy, and introducing quality methodologies
- Debating about the use of information technology in education

(b) Training and education for the specific needs of organizations of our society:
- Understanding the needs and expectations of the different organizations
- Training skills and competencies of the specialized disciplines needed for the organizations' business management, e.g. quality management, information security management, process management, crises management, and other specialized areas of the business management
- Training by the organization's own resources and by using external consultants
- Applying new on-the-job training means based on interactive social technology

29

The change in focus in the educational goals and human conception in the official national basic education plans

National needs and expectations in Finland for the general basic education have been changed during the years in the official national education plans ("OPS").

The development has taken place during more than 100 years in Finland from ethical to psychological emphasis, i.e. transition from ethical objectivism where the values were forwarded by the teacher to ethical relativism where the values are selected by the student:

- The beginning of the 1900s: Strong moral character
- 1920s: Moral personality
- 1950s: Personality
- 1960s: Cultural human
- 1970s: Distinctive entity of personality
- 1990s: Individualism with high self-esteem and life management

Comments:
✓ Particular quality related measures have not been included explicitly in these plans although the education carried out according to these plans has been generally considered to be high quality.
✓ Right now, the tough times of recession set challenges also for the investments of the educational development. There are fears about the worsening situation.
✓ Now we are searching for and piloting new practices and features in education particularly based on positive psychology and character strength pedagogy. This also opens possibilities to the application of quality methodologies. Also debating about the use of information technology in education.

30

Pedagogy of character strengths and virtues based on the positive psychology (basic education)

Virtues and strengths:

1. Supporting the development of young people's identity, personality, and character on the basis of virtues and strengths
2. Forming the basis of social and human well-being, and promoting the cultural continuity
3. Developing the strength pedagogy culture in the school community
4. Developing home-school cooperation based on virtues and strengths
5. Developing the awareness of choice of virtues and strengths among young people

Universal virtues and strengths:
- Wisdom and knowledge
- Courage
- Humanity
- Justice
- Temperance
- Transcendence

Striving for the effectiveness of the pedagogy:

1. Establishing the pedagogic concept: Identified strengths and skills of teachers
2. Defining the contents of the strengths: Strengths implemented in the educational plans according to the universal virtues and strengths of the original references
3. Building the learning environment: Artifacts supporting the strength and communications
4. Establishing the educational culture: The guiding principles for home-school-teachers-classroom cooperation
5. Planning the strength education: Oriented school management and teacher team
6. Professional networking: Expert communities and the schools of the strengths approach

31

(Ref.: Juhani Räsänen, Martin Seligman, and Christopher Peterson)

A hot discussion topic in developing basic education: How may technology contribute to learning?

Key issues:
• Using information technology and computers in the class room education
• Introducing entertainment media products to the class room for education
• Teaching software skills to the children

These applications are surely and strongly coming, but there are opinions both for and against:
- What? What is the meaning of technology?
- Where?
- How?
- What is the role of teachers and parents?
- How to approach?
- To what extent?
- What are the needs and expectations?
- What could possibly be achieved, and what to lose?

The debate has been going on in a broader sense already years, e.g.:
• Healy, J. M. (1998). Failure to connect: How computers affect our children's minds - for better and worse.
• Tapscott, D. (1998). Growing up digital: The rise of the Net generation.

Ref.: CICERO Learning Network with Aalto University, University of Helsinki, University of Lapland and University Consortium of Pori and the Finnish Institute of Occupational Health. CICERO Learning Network was established in 2005, and is coordinated by the University of Helsinki.

Practical examples from Finland

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- Applying new on-the-job training means based on interactive social technology Web 2.0

33

EU: "Education systems do not meet the requirements of the labour market" (*)

Rethinking education is a necessity for skills for better socio-economic outcomes. Highly educated young people struggle to find work but employers are unable to find the workers they need. This causes unemployment.

- High quality education is to provide useful **skills for the labour market** needs. This has to go hand in hand with the development of **personal competences and societal attitudes**.
- Young people should think carefully before deciding what to study.
- **Requalifications** are needed to improve personal situation that promotes employment, social inclusion, well-being, family life, active citizenship and self-recognition.
- People have to change jobs many times during their working life, and to adapt to new requirements, technologies (**lifelong learning**).

EU will have concrete actions at the Union level and recommends initiatives at the national level for:

1. **Delivering the right skills for employment**
2. **New ways of teaching and learning**
3. **New approaches to funding and partnerships between schools and companies**

General needs include basic literacy, numeracy, and transversal and entrepreneurial skills. **Individually** are required personal competences, as critical thinking, team working, problem solving, communication, self-confidence, taking initiative and leadership. Language skills are according to the "Barcelona objective", mother tongue + two foreign languages.

Systemic changes are needed:

- Improvements for improved quality of our educational institutions without new burdens.
- Non-formal and informal learning, work of youth organisations, good quality internships

34

(*) EU Committee on culture and education, September 2013

Managerial learning needs: Effective management is based on up-to-date knowledge and awareness

Training and education are crucial business supporting activities in all organizations. Business leaders and organization's experts have their particular roles and responsibilities.

Successful management of organizations is based on right knowledge and management skills to be used on time:

- **Business leaders** need in **their daily tasks** a lot of:
  - General and contextual business related knowledge and information
  - **Specialized knowledge and information** e.g. in the fields of finance, statutory regulations, quality, information security, social responsibility, human resource management, business continuity, crises management, innovation management, etc. They may consult with experts but not delegate their responsibilities.

- Needs are for two very different management areas:
  - **Strategic management**: Decisions and measures concerning the entire organization and considering especially the future competitiveness of the organization.
  - **Operational management**: Decisions and measures concerning daily management emphasizing the performance of the business processes

- Business leaders, experts and also the other members of organizations are in continuous exchange of information **between organization's stakeholders**, including customers, employees, shareholders, suppliers, business partners, and the great public.

35

Managing skills to the business leaders, a challenge of effective organization-internal learning

➢ **Management and leadership skills are needed everywhere and at different levels** in organizations:
  - • Board of directors, CEO and executives, strategic business areas, headquarter functions, supporting functions, business processes, projects, teams, and individuals

➢ Many **business leaders** are not necessarily well prepared or committed in their special responsibilities in today's complex business environments.
  - • Business leaders are immense busy and individual personalities

➢ **Learning needs** in a business-management context over the whole organizations:
  - • Good general management practices and their application, and incorporated the knowledge of specialized disciplines
  - • Personal and organizational learning
  - • Focusing on building and sharing knowledge throughout the organization and among stakeholders

36

Deepness in knowing and learning depends on person's organizational position and responsibility

1. Know — Passive knowing, reproducing, and quoting knowledge produced by others

2. Comprehend — Finding meanings, interpreting facts, inferring cause & consequence

3. Apply — Active applying knowledge in new situations, solving problems

4. Analyze — Recognizing and explaining patterns and meanings, seeing parts and wholes

5. Synthesize — Composing knowledge, creating new ideas, predicting and drawing conclusions

6. Evaluate — Assessing value and making choices and recommendations for innovative reforming, critiquing attitudes and beliefs

6+. Metacognitive skills to understand how the learner learns. Awareness of one's own knowledge and ability to understand, control, manipulate, and making own ideas questionable

37

3252/21.9.2013/jan   (Ref.: Bloom, Mayer)

Learning loops for deeper knowledge and awareness

Single-loop learning:
Improvement within an existing system that rests
on unchallenged and implicit assumptions

| Underlying assumptions | → | Goals, values & strategies, Practices | → | Consequences |

Double-loop learning:
Expanding the analytical frame to explicitly identify and
then challenge underlying assumptions

Multi-discipline knowledge needs and expectations of an organizational expert, example a quality manager

Management practices of the own organization

Modern business practices in general

Strategic and operational management

Process management practices

QM methodology

Methods of organizational learning

Knowledge management means

Environmental management practices

Risk management means

Work philosophy

Performance excellence models

ISO 9000 standards

Supply management

Customer relationship management

Activity based costing

Time based management

Hoshin Kanri

Strategy scorecard

Problem solving and process improvement

Bench-marking

Innovation methods

Dependability methods

Documentation methods

ITC means

Communication means

Statistical methods

Extensive and productive collaboration with the experts of the other disciplines is needed

Training through courses or educational programmes

Organization-specific training should **support the organization's business targets**, and the **correct body of knowledge** should be defined for success of the training.

Management of the organization is interested in how the training will be seen in practice changing the work of people and its results:
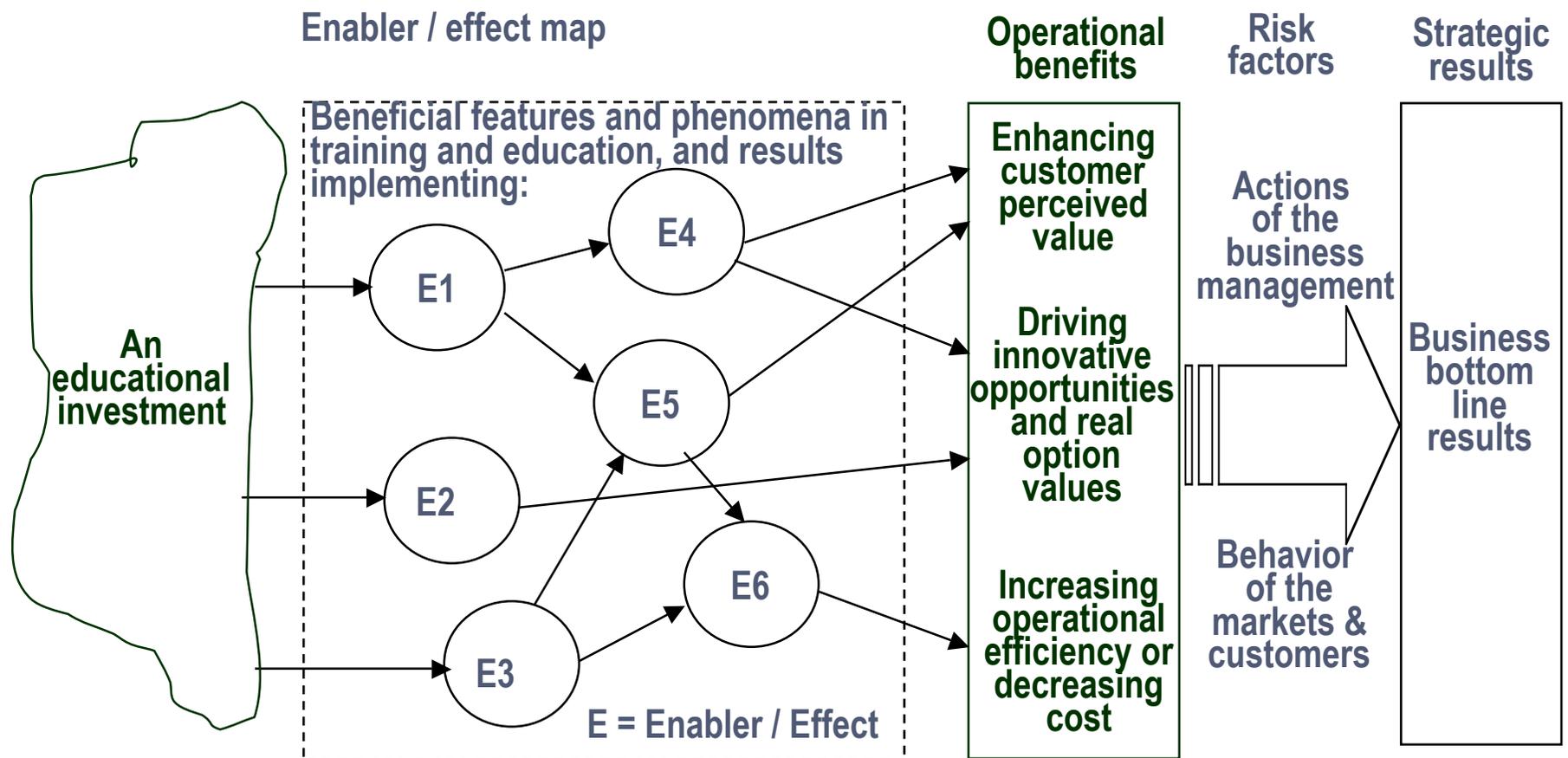
- Improving customer service? Decreasing complaints? Enhancing customers' satisfaction?
- Speeding up processes? Decreasing errors?
- Increasing sales activity and sales?

The the success of training can only be measured through its effects to the business.

Too often, training sessions only focus on trendy contents, charismatic or popular trainers, the smart learning means and technology, or even entertainment, and forgot what a change in operations is pursued, and how does the training serve those educational objectives.

Often, however, despite of setting right goals, **the major obstacle in realizing the benefits of the education may be ultimately the organization itself**. It is not prepared for necessary changes in operations that the new knowledge would require. As such, a good education is lost without being linked to the business development and applying the lessons learnt . At worst, the result is fully frustrated employees who take up a new skills to a new employer.

40

The key challenge: How to ensure the integration!

EEM - Enabler-Effect Map: Understanding the impacts of educational contributions to the business benefits

Enabler / effect map

Operational benefits

Risk factors

Strategic results

Beneficial features and phenomena in training and education, and results implementing:

An educational investment

E1

E2

E3

E4

E5

E6

E = Enabler / Effect

Enhancing customer perceived value

Driving innovative opportunities and real option values

Increasing operational efficiency or decreasing cost

Actions of the business management

Behavior of the markets & customers

Business bottom line results

41

4145/24.1.2013/jan   (Ref.: Lillrank, Laulajainen)

A KWE (knowledge work environment) of the Web 2.0 technology for organization-internal on-the-job learning

The system is provided by a cloud service (SaaS = software as a service). Login to the system of the authorized group of persons is with the Username and the Password.

Tools of the KWE:

- "Summary": Opening page after login; Connect to the other pages by clicking icons or hyperlinks.
- "Blogs": Discussion topics; Group members' individual contributions, blog posts and comments
- "Wiki": Group's shared knowledge-base; Editing and commenting texts
- "People": Networking information; Group members' professional profiles

- "Group administration": Invitations, user statistics, etc.

42

Quality of learning through effective and efficient educational processes – Basics and achievements

Conclusion questions for further consideration:

- How do the managerial decisions and actions affect the quality of education and learning in schools and other educational organizations?
- How do political decisions and actions of the national authorities promote or hinder the quality of learning?
- How the international models and comparative studies can effectively be utilized for improving education in different countries and particular educational organizations?
- How could we focus our attention on the individual human aspects in education and learning processes as well as their management to fulfill the genuine needs and expectations?
- What are the best ways to evaluate the quality of educational processes and learning results?
- How should we deal with the opportunities and threats of the new learning theories, concepts, principles, platforms, and processes?
- How could we understand quality of education and learning as a multi-disciplinary issue?
- How could well-known professional quality practices reinforce the body of quality work and provide proved means of quality in the field of education in order to avoid amateurish approaches?
- How the education and quality experts could together learn from each other?
- How could we enhance effectiveness and efficiency of organization-internal and organization-wide general and specialized training and education?

43