

COST Exploratory Workshop

Knowledge Management

WP3: Knowledge dissemination and transfer

Communication – Learning - Knowledge Construction and premises



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Communication

Inspired by systems theory
- A sociological perspective

One Communication Unit: **The synthesis of three selections**

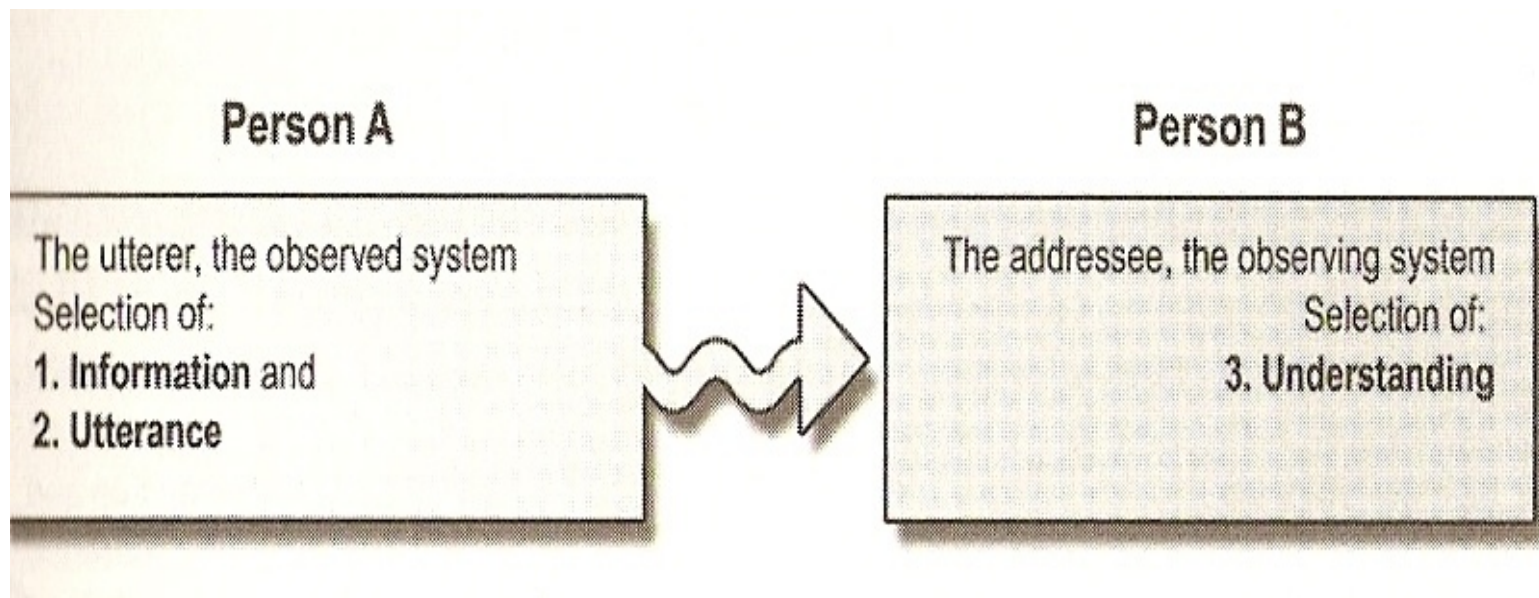
1: The selection of information (Person A),

2: The selection of utterance (Person A),

and

3: The selection of understanding (Person B) **invisible**

One communication unit - only if Person B observes selection 1 and 2 plus makes the 3th selection.



(Mathiasen, 2008: Is There a Nexus between Learning and Teaching?, fig. 6.3):

Communication:

Different conditions in different communication forums

F2F: multiple senses to facilitate understanding, i.a.:

- sound
- gesticulation
- articulation
- intonation
- pauses
- kinesthetic
- smell/odeur

Written communication, i.a.:

- graphic/design
- smiley
- pictures/figures/illustrations

Animation/streaming video etc. as net-mediated communication, i.a.:

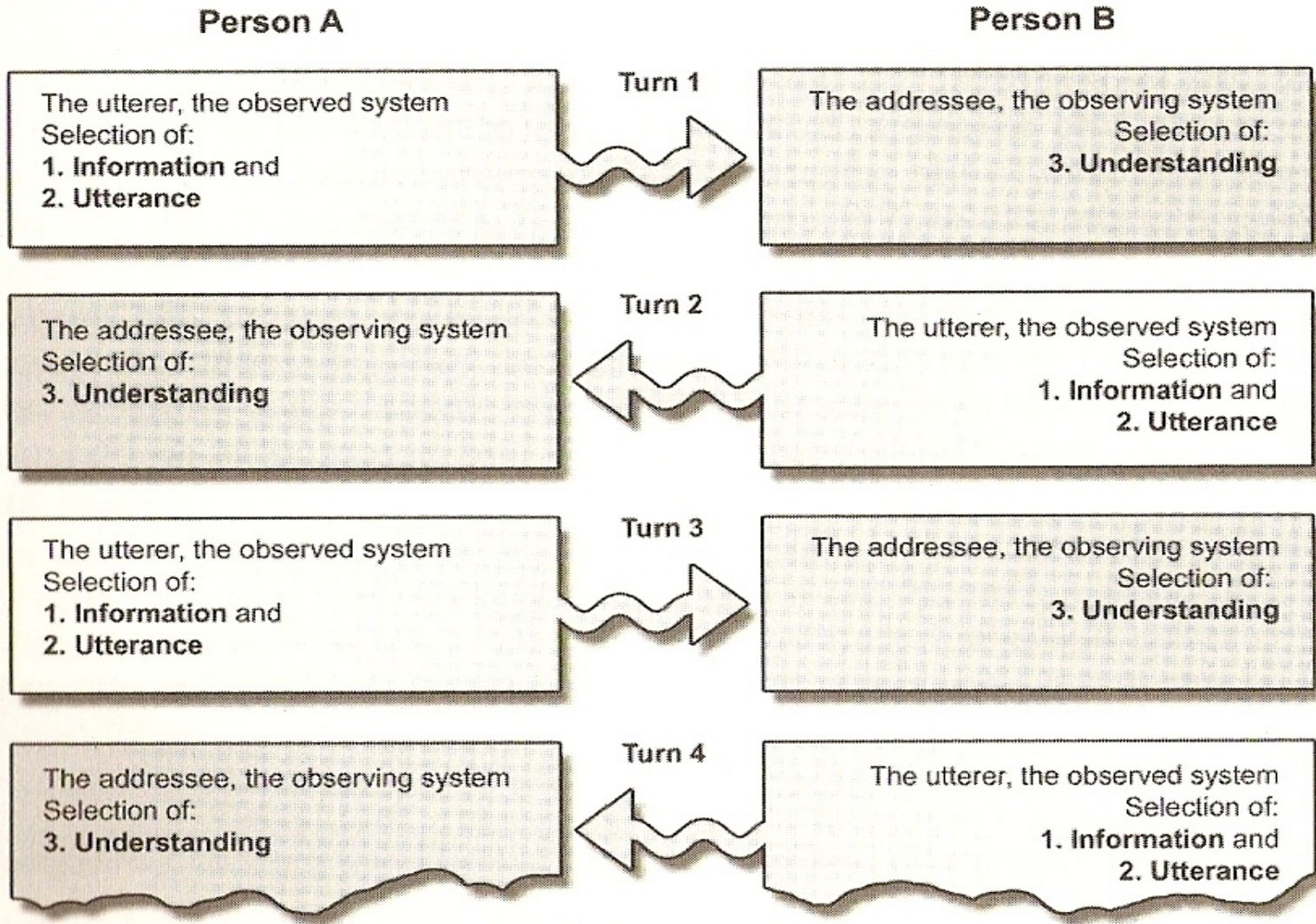
- sound
- gesticulation
- articulation
- intonation
- pauses

Communication

Point:

**We can only observe the first two selections in a communication unit;
since systems are operatively closed,
thoughts do not leave psychic systems as thoughts,
but as a linguistic re-construction.**

COMMUNICATION

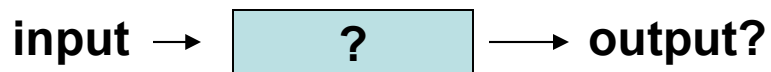


Trivial systems



Cause and effect/predictable
Independent on the concrete context

Non-trivial systems



No Cause and effect/unpredictable
Dependent on the concrete context

e.g.

**when 30 students have heard the same
lecture/podcast,
in principle the result will be 30 different
constructions of knowledge,
given that every person has his/her unique set of
mental constructions
and
therefore his/her own way of observing the
environment/communication forum**

As a consequence of the systems theory approach:

- **Transfer of knowledge is not possible**
- **The idea, that knowledge is a "substance", which e.g. the teacher can transfer to the students, is not in line with the presented theoretical lens**
- **Systems theory with its focus on *operatively* closed systems thus challenges the traditional paradigm that e.g. teachers can transfer knowledge to students through lecturing, offered podcasts etc.**

Findings

Learning potential

Students:

”Especially the talking head shows the gap between one-way-communication and what we learn.”

”Even if I heard the podcast 20 times, I didn’t understand. It doesn’t help me just to hear the same words again and again, I need other words for the same contents.”

Findings

Teaching

Students:

”The talking head can’t replace f2f teaching – in fact, it’s not teaching, like it’s not teaching to read a book.”

”Maybe it’s ok to replace every other lesson with a podcast lecture, but then we should have the other lessons with max. 12 students participating.”

”A podcasted lecture is not a quality improvement in itself.”

”The talking head just shows that maybe the time has passed for the lecture as we know it.”

Students' requests:

Communication

- the possibility of

continuous feedback

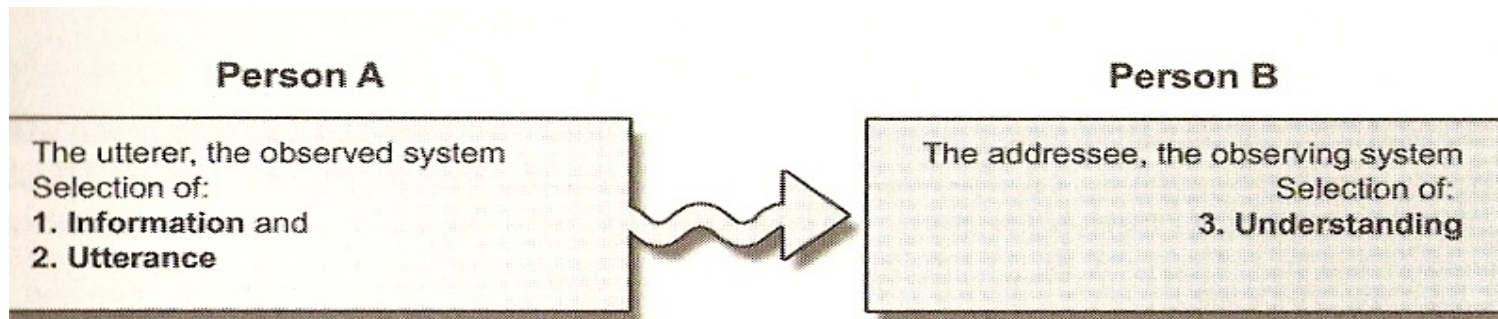
and

control of selected understanding

to

facilitate comprehension

One-way communication do not meet the students' needs



Distinction

Dissemination ↔ Communication

In conclusion

A challenging task:

How can we organize teaching (communication) environments including choice of knowledge media,

so each student gets the possibility to develop the concrete required educational qualification,

when the underlying basis is that every person is unique,

each one with their own specific mental construction and

thus their lens as an observing system?

Communication forums including relevant systems

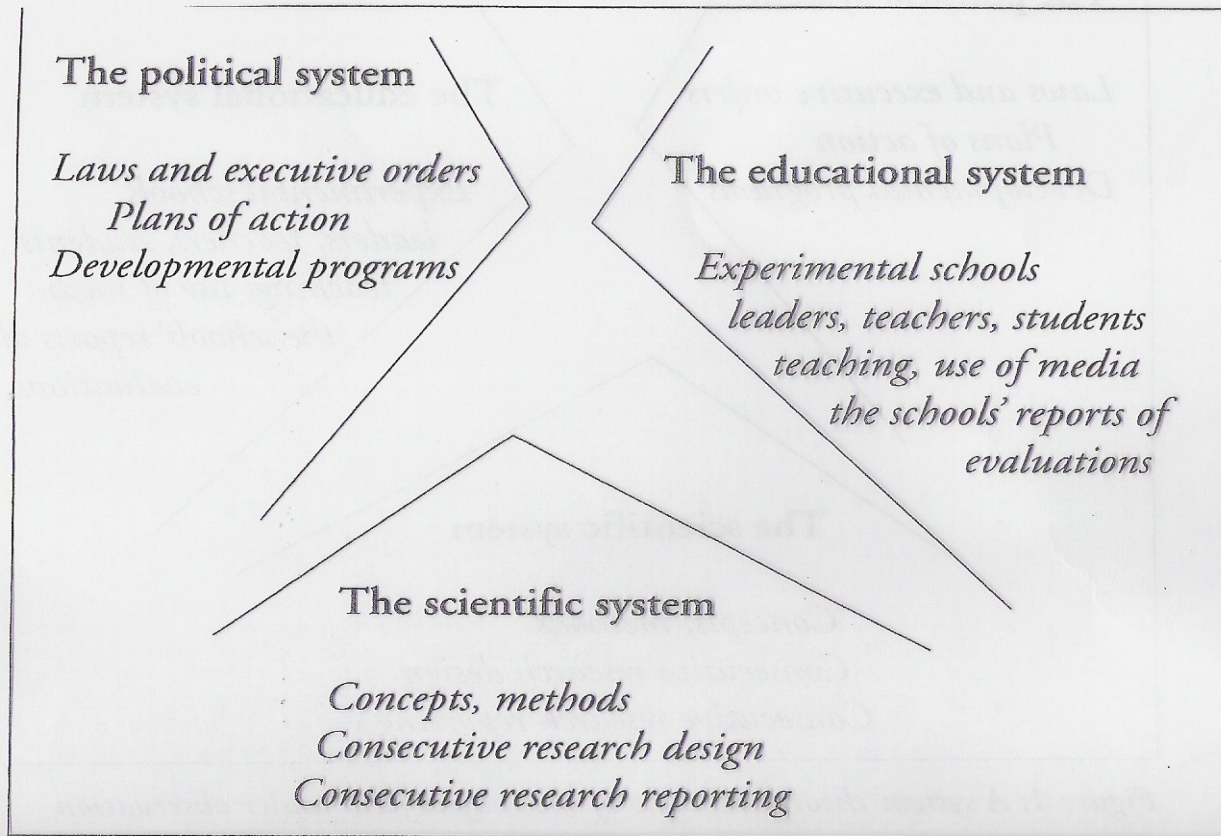


Figure 1: A system-theoretical view of the subject field under observation

Communication Expectations Premises

