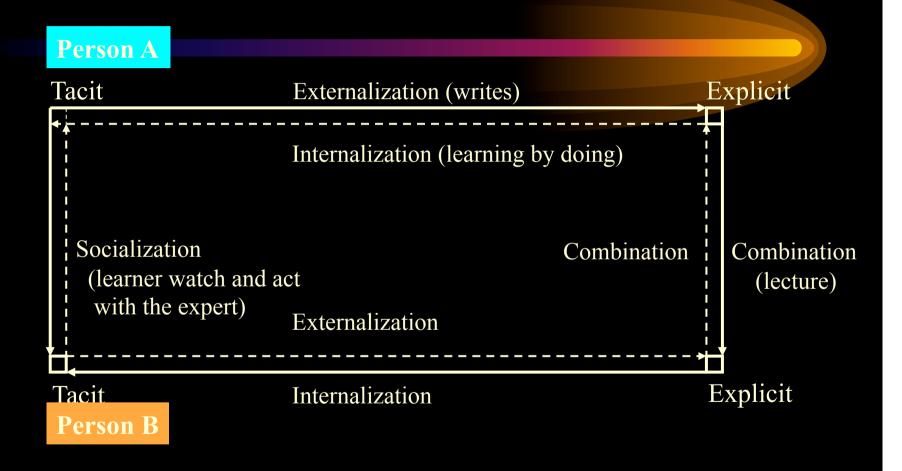
#### Human Competence and Knowledge Creation

• Both knowledge and skills are transferable, between individuals, as well as between different occupations and different jobs (Nubler, 2007).

 Learning theories maintain that explicit knowledge, or that an individual can declare, can be converted into more complex sets of explicit knowledge by adding explicit knowledge.

### Process of Interpersonal Knowledge Creation



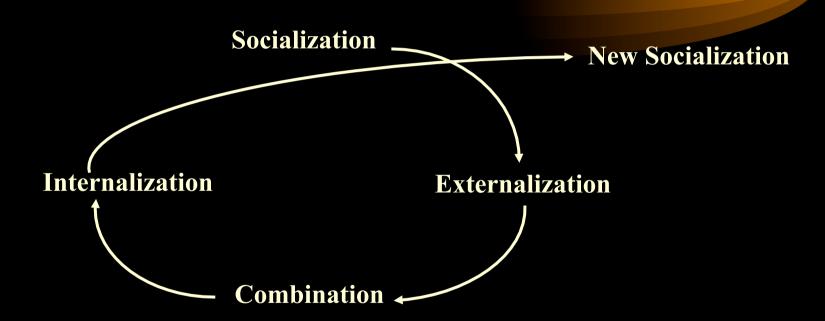
Source: Delahaye, Brian L. 2000. Human Resource Development:

Principles and Practice. Singapore: John Wiley & Sons, p.378.

### Cycle of Knowledge Creation

- Learning by doing can internalize explicit into tacit knowledge.
- Socialization, such as when a learner watches and interacts with an expert, contributes to a whole body of experience.
- Once the tacit knowledge is translated and expressed into forms that are comprehensible to the conscious mind of an individual and to others, the tacit knowledge is externalized into explicit knowledge (Delahaye and Becker, 2006).

### Cycle of Knowledge Creation



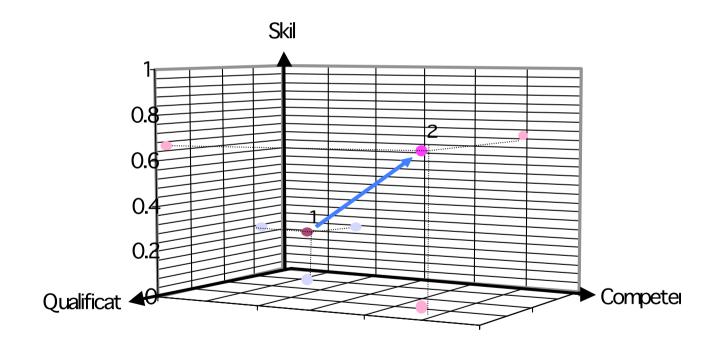
Source: Delahaye, Brian L. 2000. Human Resource Development:

**Principles and Practice.** Singapore: John Wiley & Sons, p.378.

## Knowledge Creation and Transposition of Competency

- Such a process of knowledge generation is further supported by the concept of the transposition of competency and learning.
  - The latter spells out the possibility for a learner's level of competency and professionalism to be elevated to a higher plane along expanding circles in the competency theory.
  - According to the trans-positioning notion, learning can be turned into the function of competency itself (Azemikhah, 2006).

## Skills, Competency, and Qualifications: From Level 1 to Level 2



#### The Knowledge Process of the Future

New Knowledge **New Talent** Knowledge Knowledge Generation **Transfer** Academia **Joint Research Faculty Customer Solutions New Talent New Knowledge** Competence & New knowledge Curriculum **Knowledge Application** Stakeholder Needs To Satisfy Society **Ability to Learn Best Practices Talent Specification Customer Needs Industrial Teacher Customer Feedback** Industry Knowledge Knowledge Generation **Transfer Integrated Enterprises Integrated Product/Process Dev** Learning Organizations **Enterprise-Wide Supply Chains** 

### Competence Development and Lifelong Learning

- The above notions imply that lifelong learning should be the basis for competence development, particularly in a knowledge based society of the 21st century.
  - This is supported by a common notion in the current debates of skills development on the ever-shifting requirements for competence development due to the changing needs of growing economies, the changing nature of work as well as opportunities globalization presents (Working Group for International Cooperation in Skills Development, 2007).

### Needed Skills for Competent and Productive Workforce

Source: Patcharawalai Wongboonsin (2007)

**Basic Skills** 

Competent and Productive Workforce

Specific Skills

**General Skills** 

# Key Competences for Lifelong LearningA European Reference Framework

- Communication in the mother tongue;
- Communication in the foreign languages;
- Mathematical competence and basic competences in science and technology;
- Digital competence;
- Learning to learn;
- Interpersonal, intercultural and social competences and civic competence;
- Entrepreneurship; and
- Cultural expression.