



## Course 2 — Day 2

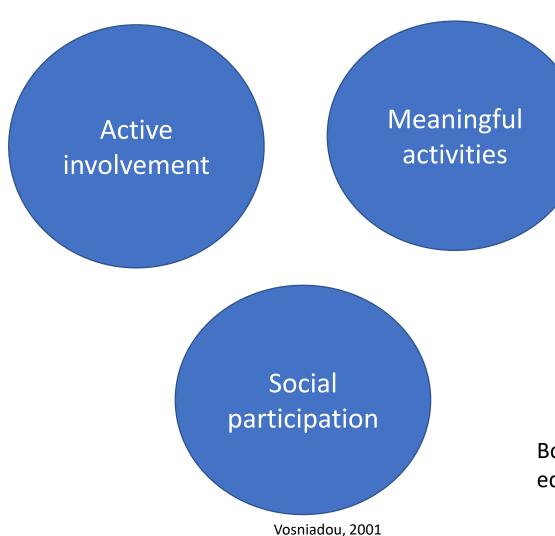
Learning







## Three principles of designing learning environments



Booklet by UNESCO, International bureau of education, "How Children Learn".





#### Dewey: real life experiences and continuity

- The world is "integral and total" for the student, but curriculum divide topics from the rest

#### Two principles when choosing curriculum topics:

- 1. The curriculum topics should be related to practical tasks in school and in the real life outside school.
- 2. Continuity in the teaching: The ideal is that every learning experience should serve for better understanding of later academic topics, and the academic topics should serve for better practical learning later on.

Leading to →

Phase 1.: prework

Phase 2.: practical task, multidisciplinary task and experience from other settings than the classroom

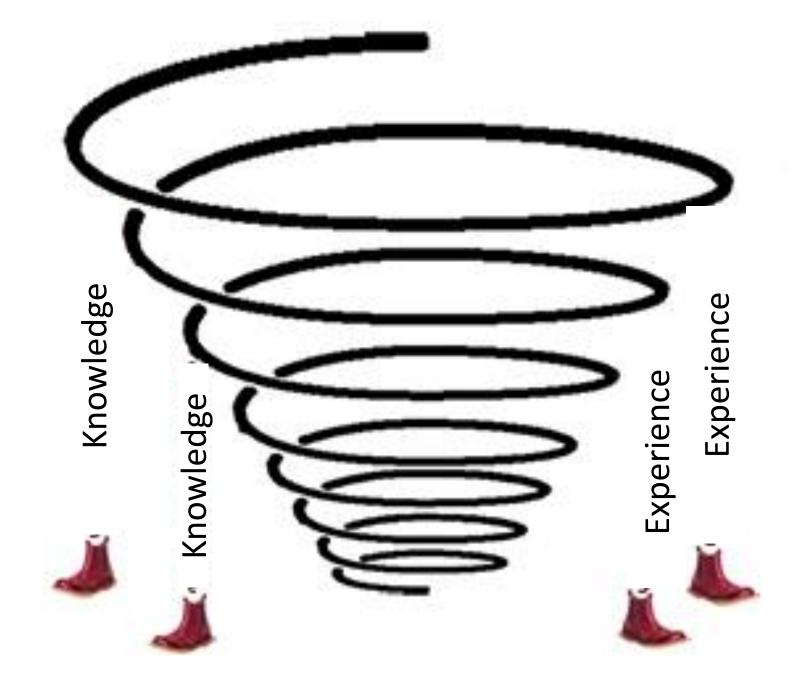
Phase 4.: reflection

(Dewey, 1966, Dewey and Dewey, 1915)







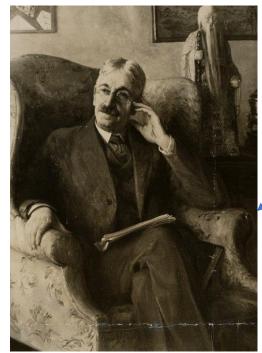






## Working with academic subjects as a whole or divided into pieces (step by step)?

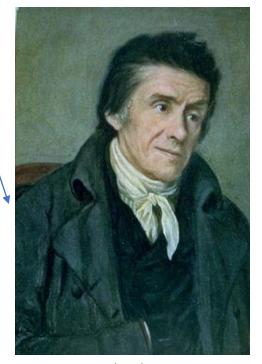
John Dewey



Picture: wikipedia.org

Two different views of what's best for the pupils

Johann Heinrich Pestalozzi



Picture: wikipedia.org







-working with academic subject as a whole or divided into pieces?

Work in groups

Discuss this questions:

- What is preferable, "whole or divided", in developing the 6 Cs?
- What is feasible at your school?







## Learning in an inductive or a deductive way?

Inductive learning:

Student-centred: experience lead to understanding and conclusions

Deductive learning:

Teacher-centred- instructions are theory-based.

An example from secondary language teaching (Schaffer, 1989):
Inductive: The students have to recognize and find the structure and patterns in the

grammar themselves

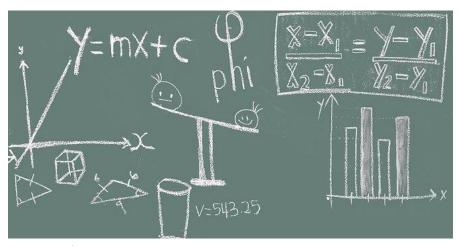
Deductive: The students get an explanation of the structure and patterns in the grammar in the beginning

- We are often somewhere between inductive and deductive teaching.
  - <u>Guided inductive teaching</u> is an example of a method somewhere in the middle (see e.g. Vogel, Herron, Cole and York, 2011). This involves inductive learning for students, given boundaries and framework beforehand.





# "Teacher feeding knowledge to the student"/deductive and explorative learning/inductive



Picture: Pixabay.com

It is not just what you do and where you choose to go, but how you behave and what kind of questions you ask (Askew, 2000).



Picture: Pixabay.com







-deductive and inductive learning

Work in groups

#### Discuss this questions:

• In what way can a inductive versus a deductive learning strategy contribute to develop the 6 Cs?







### Learning subjects in a concrete or abstract way?

Concrete learning tasks	Abstract learning tasks
Immediate learning results	Easier to transfer knowledge to new situations
Easier to remember and to understand	
Easier to use informal strategies	
Interesting and motivating	

Belenky and Schalk, 2014.

There are benefits with both concrete and abstract learning tasks.

- We need to use both.
- One solution is to start with concrete learning and gradually be more abstract.
- That will give concrete experiences and possibilities to generalize.

(Based on a reviews by Fyfe, McNeil, Son and Goldstone (2014))







-Concrete and abstract learning

Work in groups

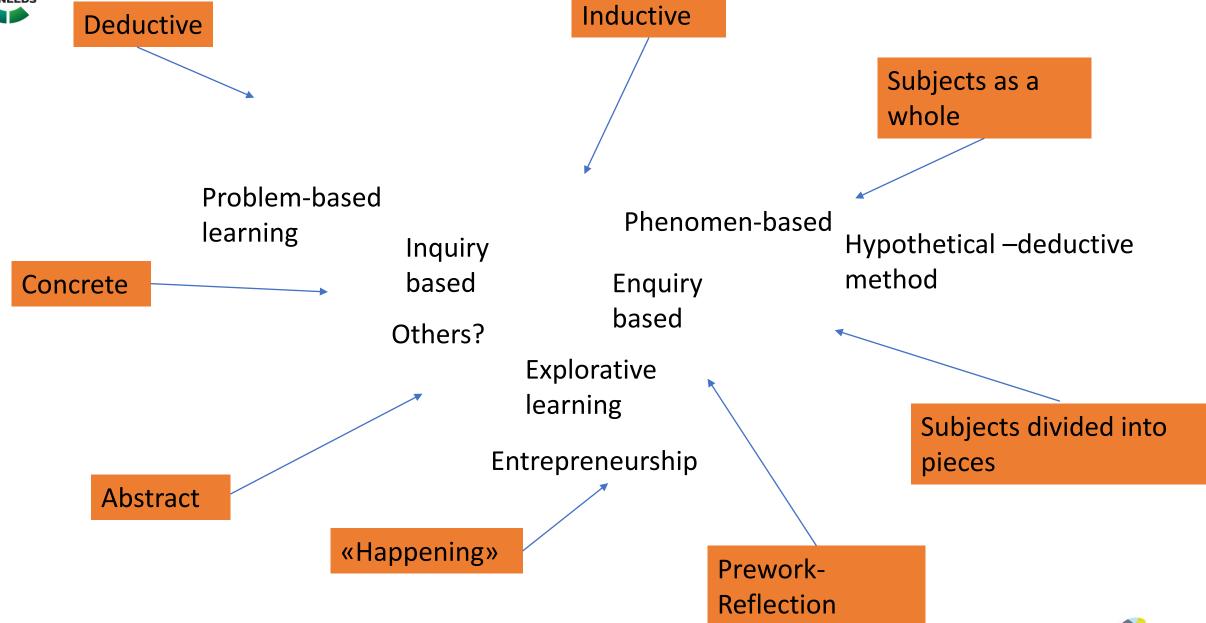
#### Discuss this question:

• In what way can concrete versus abstract ways of learning contribute to develop the 6 Cs?













-Teaching methods theoretical concepts

Work in

#### Discuss this question:

• Choose a couple of the teaching methods in the previous slide and relate these teaching methods to the theoretical concepts recently discussed.





#### Picture: Pixabay.com

## Outdoor education/Uteskole/Udeskole

#### **Fieldwork**



Picture: Pixabay.com

School camp Outdoor education centre

#### **Excursion**

#### Forest school



Picture: Pixabay.com



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#### Placebased teaching or a place to teach?





Picture: Trygve Skavhaug og Tove Anita Fiskum



Picture: Haakon Halberg

- Place-based benefits: concrete learning, realistic learning
- «Another place to teach» benefits: other boundaries, other affordances, physical activity, green and natural environment (Beames, Higgins and Nicol, 2011, Beames and Ross, 2010, Fiskum and Jacobsen, 2012, Fiskum, 2015).





