

Learning and instruction

Pedagogical intro to Math, Physics, CS & NBE course assistants Tuesday 7.3.2017 SCI Learning services (LES) Kirsti Keltikangas and Jukka Parviainen



Timetable

12:00-12:15 Coffee and welcome

12:15-15:00 Learning and instruction

Successful learning situation Supporting motivation to study

Interaction and feedback

break included in between



What do you think about working as an assistant?

- Pick one **postcard** which somehow describes your thoughts about working as an assistant
- **2. Find someone** you have never talked to before this morning/event
- 3. Present yourself and talk about your card and your thoughts



Learning objectives

After this introduction

- ... you have got to know other assistants
- ... you recognise things related to learning
- ... you have become conscious of ways to motivate and activate the students
- ... you know ways how to give constructive feedback



Successful learning situation

What is it all about? What does it consist of?

Exercise

Independent work (3 min):

Write down on a sticky-note (1 thing / paper)

Groupwork (7 min):

- Present your ideas to your group and have a discussion about them
- Try to wrap up and group the themes you have found

What can you as an instructor / assistant do to support learning?

- 1. Discuss the theme in a group
- 2. Write down your "ideas to support learning" on the sticky-notes (1 thing / paper)
- 3. Place your "ideas of actions" next to the learning elements they are connected to

15 min





Motivation to study; how to support it?



Expectancy-value theory of motivation

Value and meaning of the task

Is the knowledge or skill useful?

Am I interested in this topic?

Willingness to learn new things



Expectancy

for success



Motivation

Do I have a chance to succeed if I try?

Are the tasks at a reasonable level? Is the amount of work suitable?

Is sufficient instruction and support offered

Is it ok to collaborate and cooperate with other students?



Think about your work as an assistant

What motivates you?

- What makes your work more/less meaningful?
- What makes it more/less possible for you to succeed in your work?
- What can you do to support your own motivation?
- What can other people/the environment do?



Motivation to be an assistant?

- Your personal interest in assistant work
- Things that help you find meaning and interest in your work

Value and meaning to me?

Things that hinders your interest to assistant work

- What supports your success?
- Do you have appropriate workload and know-how?

Expectancy for success in assistant work?

- What makes you feel uncertain or fear failure?

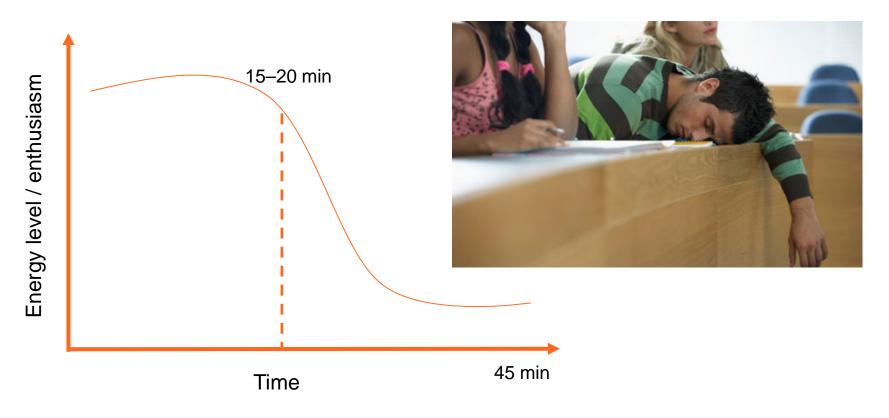


Motivation to be an assistant

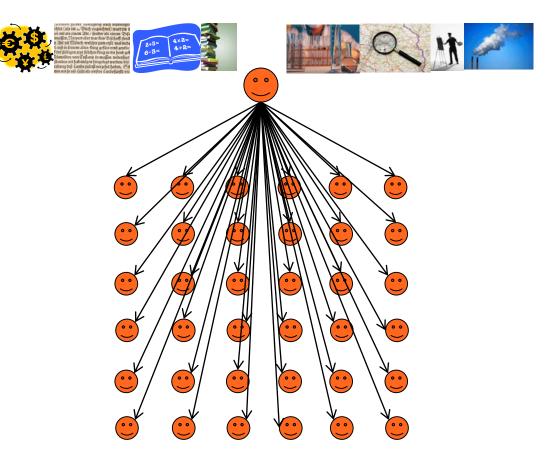


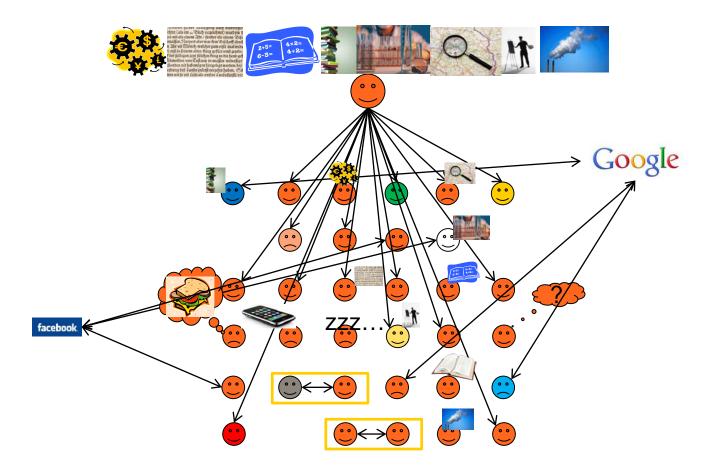
Interaction: Why and how?

Rhythm of teaching vs. energy level



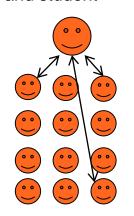
E.g., Johnson, A. & Proctor, R. W. 2004. Attention, theory and practise



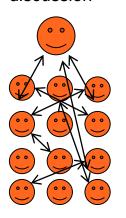


Examples of how to arrange interaction

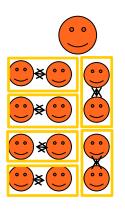
Between teacher and student



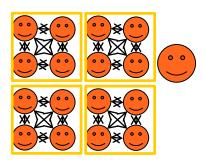
Teacher led group discussion



Discussion in pairs



Group discussion; teacher coordinates

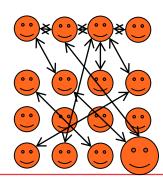


Personal instruction



Group instruction









Group discussion, led by the students



Interaction: to promote learning



Constructive discussion of conflicting points of view

Deep processing of the objected subjects

Fair/equal participation

Positive and safe atmosphere



Open questions to open the mind/thinking (Aarnio & Enqvist 2002)

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How do you consider...?
What is it based on...?
What does it mean...?
What are the consequences of...?
How do you understand...?
What is it all about...?
What is the meaning of...?
What if...?
What is this... connected to?
How do you feel about...?
What do you think you are going to do...?
How do you explain...?
How is it in your point of view...?
What kind of actions...?
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Feedback

What type of feedback you have received?

Recall a feedback session and analyse:

- > How was the situation?
- Who gave/received the feedback?
- > How did you feel about it?
- > What was good/not so good in the situation?
- > Did you learn something from it?

Feedback

Constructive	Unconstructive/destructive
Is about an issue/action	Is about the person
Justifies the views	Contains judgements (good/bad)
Is useful for development	Does not necessarily benefit anyone
Takes into account the recipient's state of development, situation, ability to receive feedback, etc.	Does not take the recipient into account, is given only from the evaluator's perspective
States observations	Makes subjective conclusions / interpretations
Two-way process, the recipient has an opportunity to respond	One-way process, no chance to answer or reflect



Examples

Constructive	Unconstructive/destructive
An error or mistake has occurred	You have made a mistake
I see that something has happened here that you should consider a bit further	This is wrong.
You could concentrate on this in the future	You went totally down the drain with this.
To make sure: Would you like to talk about? What do you think about this? Would you have a second?	Cuts to the chase immediately: this is how it was, this is what happened, this is what you did.
This is what I observed This looks like I think this is	This is what you did . This went like this because
Do you feel that you understood what I meant I hope I understood your question correctly? Could you give details?	This is how it was, and that's it.





Examine the table of constructive feedback related to your experience

Do you find connections or similarities?

After this afternoon's training?

- Possibility to complete pedagogical training (PED-131.9000 Course assistant as a learning instructor, 2 credits) during spring 2017
- Entire training consists of two other afternoons/mornings (together with Math/Computer Science/NBE depts. in 27.3. + 21.4. + learning and reading tasks
- We will ask for your feedback via Presemo survey
- In this form, you can confirm your enrollment to the 2-cr training
- More detailed info will come when we have the number of participants for the course





Thanks for your participation and wish you a successful term as a course assistant!

