



Aalto University
School of Electrical
Engineering

PED-131.9000 Teaching assistant as a learning instructor

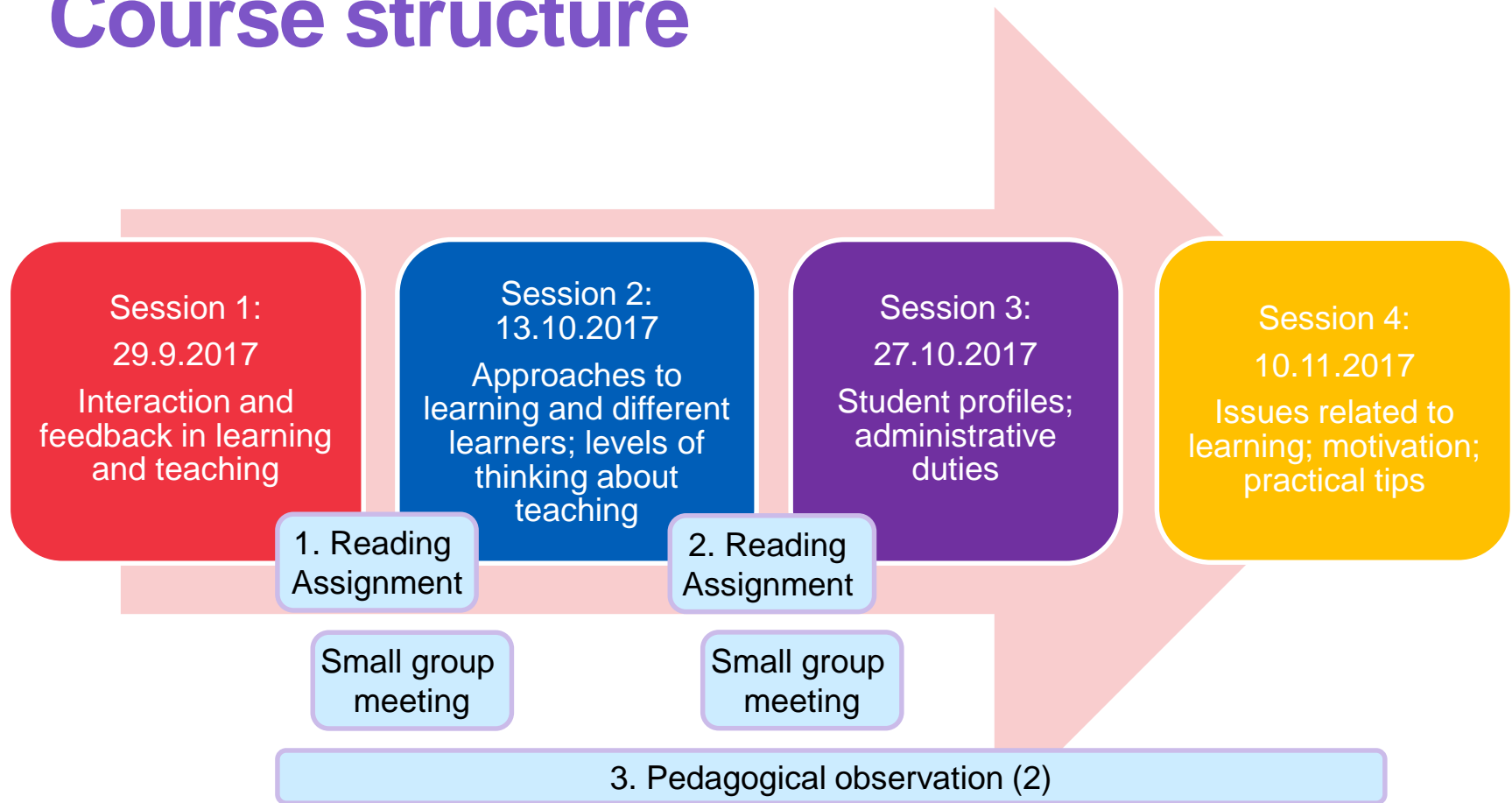
Day 4

Luis Costa and Maija Lampinen

Today's schedule

- 9:00–9:15** **Getting started**
- 9:15–10:30** **Study psychologist Paula Sjöblom**
- 10:40–10:50** **A brief peek at motivation**
- 10:50–11:35** **Learning café**
- 11:35–12:00** **The assistant's bag of tricks, closing the course**

Course structure



Learning outcomes

After the session you...

- ...are aware of some reasons why students might have trouble learning,**
- ...are aware of the students' ways of learning,**
- ...can identify some aspects of motivation,**
- ...have reflected on the course,**
- ...know some methods to advise students as a teaching assistant.**



Motivation: how to support it?



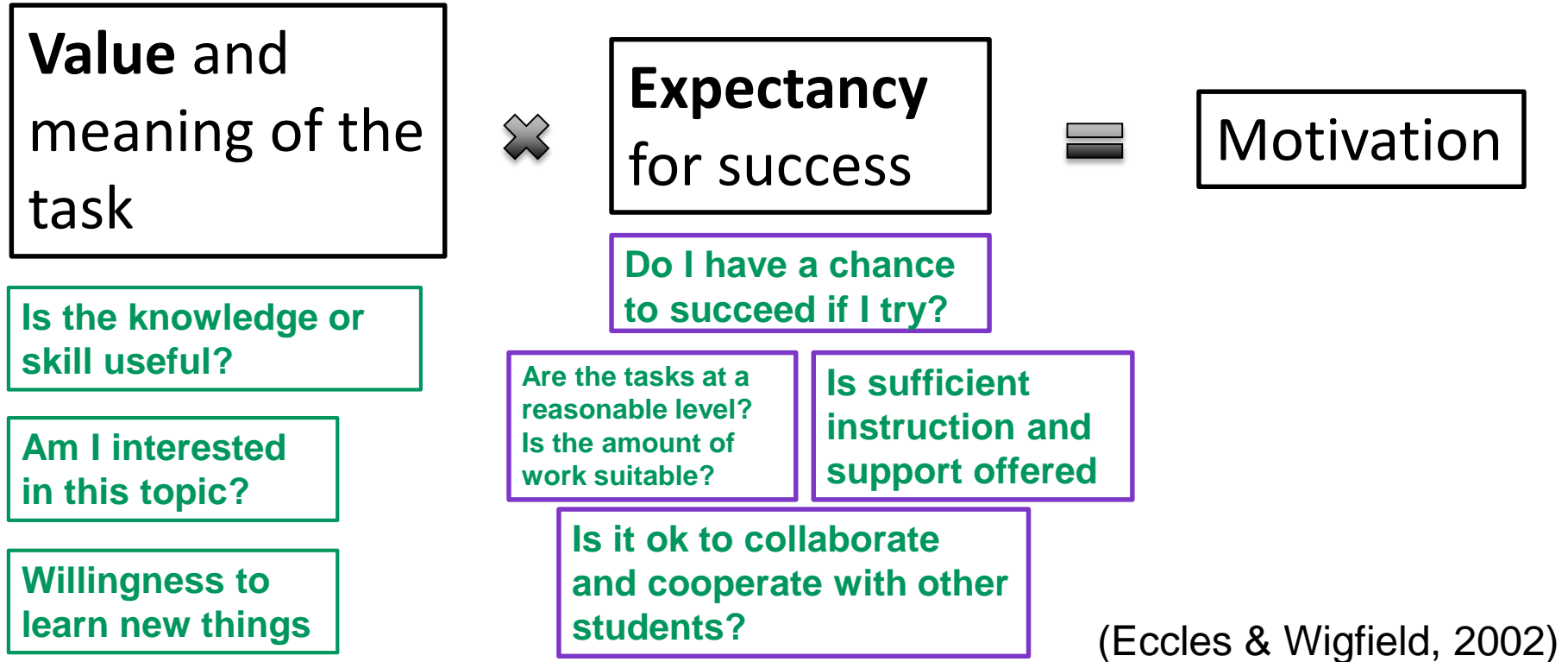
Motivation is not ON—OFF

- Intrinsic motivation
 - originates from within ourselves
 - *our own interest*
 - learning itself is rewarding
- Extrinsic motivation
 - reasons to work come from outside
 - mandatory activity
 - everyone in our family has done this
 - external rewards or punishments
 - please/upset your parents or teacher
 - get a good/bad grade
 - facilitates getting a job
- Emotion regulation skills (coping with failures), personality and situational factors affect motivation (among other factors)

How to support motivation?

- **Create a safety zone: encouraging and friendly communication**
 - Safe to make mistakes, safe to ask questions and to collaborate
- **Give positive feedback, notice progress**
 - ⇒ self-efficacy beliefs (I can do this)
- **Help set achievable goals: e.g., the next step in problem solving**

Expectancy–value theory of motivation



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** to support you?

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 hinder 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

Learning café

Instructions for the learning café :

- We have 3 groups (3 tables)
- Each café table has a specific topic to discuss and reflect on
- Groups move from one café table to another when the teacher gives the sign (~10 min/table)
- Draw and write on “the tablecloths”—express your ideas
- At each table, every group continues the discussion on the basis of the opinions, suggestions made by the previous one
- Continue the discussion, add your ideas and thoughts
- At the last table, pick 2–3 things you’d like to share with others

Learning café theme 1:

Things you remember from this course so far

In this course we have discussed different topics, you have read a couple of articles, and you have observed teaching.

- What do you remember from those activities?
- What have you learnt?
- What would you like to learn more?
- Do you see difficulties in applying what you have learnt?
- Other thoughts, feelings, etc.
- What kind of learning/teaching methods were used on this course?

Learning café theme 2:

Things an assistant should remember

The teaching assistant has an important role in a student's learning process. From your point of view, what should a teaching assistant remember when she or he is

- working with a teacher?
- guiding a student?
- planning the exercise session?
- in the role of teaching assistant?

Learning café theme 3:

Things you wouldn't change, things you'd develop, and things you'd leave out in this course

What do you think about the course?

- Would you like to change something?
- Would you like to know or learn more about something?
- What would you develop?
- What was good?
- In what way have you benefitted from the course?

The assistant's bag of tricks



Believe that students can

Try always to believe that students can if they want to and try hard. If *you* don't believe they can, it's more likely that they don't either.

Self-fulfilling prophecy:

The students of a teacher who is told their students are very good at something perform better than the students of a teacher who is told their students are very bad at it, even though there is no difference in the students' actual knowledge level.

Some ways to proceed with those who are stuck

Give feedback

- Say something positive about the proceeding

Ask

- Can you explain how you got here?
- What was your main idea?
- Are there things you are unsure about?

Use peers

- Is there someone in the same situation? Can they share ideas or help each other?
- Try to stay close and listen if they get on track. Give support if they do, keep asking questions if they don't

Something extra

- Is there some extra material they could use?
- Some extra exercises more at the right level?

Next step

- Make sure the students know how to proceed. If they still don't know, help with what to start with

Tips from a seasoned assistant

At the course level

- **Talk to the course teacher throughout the course**
 - Exercises must be in sync with lectures, problems must serve a purpose (this is the teacher's responsibility, but you should know the purpose too)
 - Remind the teacher if necessary that the students don't know as much as he or she does
 - What does the teacher expect of you as an assistant?
 - Ask for help when you need it (from the teacher, colleagues, previous/other assistants)

Tips from a seasoned assistant

Prepare yourself well before your class

- **Solve the problems yourself even though you have the solutions**
- **Learn the exercise topics as well as you can in the time you have**
 - you don't have to know everything
 - *if you don't know something in class, you could say: "Hmm, that's a tough one. I don't know the answer, but I'll find out and get back to you in the next class." Return to it the next time!*
- **Think about what you will say and do in class (specially the first)**
 - how you wish the students and start the class (ice-breaking is important)
 - any extra information, jokes (be sensitive, you can be exaggeratedly outrageous too, but tread carefully), etc.
 - be prepared for the unexpected and to improvise
 - how you interact with different students (the shy ones need you too)

Tips from a seasoned assistant

Content-related things you can do in the class

- **Tell students what you are going to do, or ask the students to choose what you should do in class** (some possibilities are below)
- **Briefly go through only that theory relevant for the exercise**
- **Solve an example problem that covers all, most, or most difficult of the issues in the exercise problems *on the board*** (keep it there)
 - don't be afraid to make mistakes
 - consider making an error on purpose (this should serve a purpose)
- **If the solutions have a clear algorithm/procedure, present it**
- **Think of a small related puzzle for the students to think about when possible; return to it at a suitable point during the class**

9 Golden rules for instruction

1. Leave the joy of discovery to the student. Do not give answers, but lead subtly towards the solution.
2. There is usually more than one right way of thinking. Do not impose your own solutions.
3. Be supportive, especially when the student has had difficulties.
4. (New) students are shy. Approach them, do not necessarily wait for them to ask for advice.
5. Teaching assistants are not Wikipedias. The students must learn to read the course literature
6. Teaching assistants do not need to know everything, and they can let the students see this.
7. When evaluating answers, be concise. Underline the parts of the solution that are wrong and if necessary write a short comment. If there is much awry, do not spend time evaluating the assignment, but recommend asking an instructor for help.
8. Having the right idea is not enough. The answer has to be written correctly. The aim is to practice expressing oneself in a precise and readable way.
9. If in doubt about rejecting a solution, assess if the student will benefit from improving the answer.



One last reminder

If you want the two credit points from this course:

- **All your course work must be handed in**
- **Do the makeup assignment if you miss a session**
- **If some work is incomplete, come talk to us**

Thank you

**for your active participation,
and enjoy your work as a
teaching assistant!**

Good luck!