WORKSHOP: PLANNING FOR AND TROUBLESHOOTING TUTORIALS AND LABS

Cristina Adriana Alexandru
(Cristina.Alexandru@ed.ac.uk)
IN PREVIOUS SESSIONS, WE HAVE SEEN...

- The steps for preparing for a lab/tutorial
- Possible activities in labs/tutorials
- DOs and DON’Ts of tutorial activities
- DOs and DON’T’s of explanations and feedback
- How to check if a student needs help (has questions, or has understood our explanation)
- How we can deal with some possible challenges in labs and tutorials
PART 1: Planning for labs and tutorials
- Why should planning be an important part of preparation?
- What should we primarily plan for?
- Hands-on practice of planning your next lab/tutorial
- Possible problems with a plan, alternatives
- Hands-on practice of explaining something

Part 2: Troubleshooting labs and tutorials
- What are your main concerns with labs/tutorials?
- Brainstorming of solutions to these and other potential issues
PART 1: PLANNING FOR LABS AND TUTORIALS
WHY SHOULD PLANNING BE AN IMPORTANT PART OF PREPARATION?

- In small groups, discuss the motivation behind planning (i.e. what to do, how, when) for labs/tutorials, and not just reading the material for them.
WHY SHOULD PLANNING BE AN IMPORTANT PART OF PREPARATION? SOME IDEAS

- To make sure that what we do in class allows students to progress towards achieving learning outcomes
- To be prepared to get students unstuck on more difficult parts of the course
- To make sure that we make things interesting
- To make sure that we also help students develop skills which will be useful to them on the long run
- To be efficient so that we do as much as possible which could help the students
- To be more prepared for difficult situations in class
- To feel a better sense of security!
WHAT SHOULD WE PRIMARILY PLAN FOR?

- In small groups, make up a list of items that you would consider in your plan (i.e. what would you need to decide on for the lab/tutorial?)
POSSIBLE COMPONENTS OF A LAB/TUTORIAL PLAN

- If not already provided by the CO/TA:
  - The **learning outcomes** of the lab/tutorial
  - The **relationship of the lab/tutorial with assessment**
  - The **tasks** to be proposed to students on the tutorial sheet
  - The **main learning materials**
- **Additional tasks** which may be useful to the students
- The **order in which to tackle the tasks**
- The **activities** which we will use to tackle each task, any additional activities to start/end the tutorial/lab
- The **timing** of these activities, including any breaks
POSSIBLE COMPONENTS OF A LAB/TUTORIAL PLAN

- Ways of explaining concepts which may be difficult
- Examples which could help students understand and keep them interested (best if real-world)
- (Other) learning materials that we will provide (e.g. handouts), or additionally point the students to
- The room layout and other resources that we will need (e.g. whiteboard, markers, poster paper)
- How to handle difficult situations
- Other course-related issues
SOME CRITERIA FOR DECIDING ON THE PLAN

- The academic profile of the students (year, specialism, level of knowledge, etc.) vs. course requirements
- The number of students in your lab/tutorial
- Difficulties that students had in past labs/tutorial, or as deduced from coursework
- Your perceived difficulty of the current tasks
- How well students interact and work with each other
- How interested and motivated they are
- The format and requirements of coursework and exam
- Your notes on how previous plans went (e.g. did a certain activity work well with the students?)
MAKING A FIRST DRAFT OF A PLAN FOR YOUR NEXT LAB/TUTORIAL

- Individually, start planning for your next lab/tutorial by drafting ideas on the “Planning a lab/tutorial” template and filling in the session schedule. You can use the slides on activities from previous training sessions for inspiration.
Share your ideas and schedule with your group. Would your ideas work? Do they have any suggestions?
WHAT COULD GO WRONG?

Following on from your group discussion, make a list of things which could go wrong and make it difficult to stick to a lab/tutorial plan.
POSSIBLE PROBLEMS WITH A PLAN

- Generally speaking, students may not meet our expectations. They may:
  + Find the tasks and activities too difficult, not understand or have many questions which take much more time to tackle
  + Find them too easy, and maybe want to do something else
  + Want to tackle things in a different order
  + Lack knowledge of the course prerequisites or more general computing skills
  + Be difficult (come unprepared, not interested in class, disrupting, etc.)
Returning to the possible problems with your plan, discuss possible solutions. You could consider:

- Alternative tasks (e.g. if existing ones too hard/easy)
- Alternative activities (e.g. if time or interaction issues)
- Where to add buffer time
- Other ideas?
SOME TIPS AND TRICKS

- Adapted from Baume & Baume (1996) “Running tutorials and seminars”:

- ACCOUNTABILITY: If you choose the tasks, they should be clearly in line with course learning outcomes (search for “drps” and the name of the course)

- VARIABILITY: Students get bored easily, so keep a varied plan of tasks, activities and pace

- PREDICTABILITY: It is good practice to always start by outlining the plan for your session, and finish by winding up

- FEEDBACK: You should try to also get frequent feedback from the students; consider this in your plan!
SOME TIPS AND TRICKS

- Consider offering time for preparation, especially for more difficult tasks
- Balance the need to make students interact (e.g. in groups) with the time constraints
- Keep track of time by:
  - Announcing deadline
  - Using a stop watch/mobile phone timer
  - Announcing when time is almost over (e.g. “3 minutes left”)
  - Being strict about the time unless more time is needed due to common issue
- It is useful to ask students for their opinion about your plan at the beginning of the session, and be flexible to change it according to their needs
HANDS-ON PRACTICE OF EXPLAINING

- For 5 minutes, prepare individually to explain one unknown topic to your colleague. Present it, and go on explaining until it is clear to him/her. Make sure that you check for clarity.
HANDS-ON PRACTICE OF EXPLAINING

- Get your colleague's feedback and how you did. Could your explanation be improved? Have a look at the Dos and DON’Ts of explanations and checking for understanding from past session.
PART 2: TROUBLESHOOTING LABS AND TUTORIALS
WHAT ARE YOUR MAIN CONCERNS WITH LABS/TUTORIALS?

- Write down on a post-it note one challenge that you are most concerned about in your labs/tutorials. We will then brainstorm solutions to the most frequent challenges together.
SOME (MORE) FREQUENT CHALLENGES

- Some students do not seem to keep up
- Students look to you for answers
DEALING WITH STUDENTS WHO DO NOT SEEM TO KEEP UP - SOME POSSIBLE STRATEGIES

- Pay attention to body language and facial expression indicating this!
- Encourage students to interrupt you
- Stop frequently to ask for understanding, or to ask questions about what was just discussed
- Be prepared to stop and repeat
- Try to repeat from a different angle
- Ask students who have understood to explain
- Summarise main points after each task
- Leave room for questions in your schedule
DEALING WITH STUDENTS WHO LOOK TO YOU FOR ANSWERS- SOME POSSIBLE STRATEGIES

- Throw questions back
- Help students reformulate questions and break them into parts which are easier to solve
- Give out clues but not direct solutions
- Stay silent
- Try to avoid dominating the discussion! Set yourself a limit for an unscheduled talk.
- Encourage students to do the next step themselves as soon as they can
RESOURCES

- Resources on Informatics homepage – Staff Intranet – Student Services – Teaching Support – Training
- “Tutoring and Demonstrating: a Handbook”:
  - Chapter 3 (“Tutoring in the arts and Social Sciences”) page 13 (“Clarifying aims”), 17 (“Tutorial preparation”) and 19 (“Dealing with problems” box),
  - Chapter 4 (“Problem solving classes”) page 33 (“Tutor preparation”), 34 (“Activities”) and 37 (“Dealing with tricky situations”) box
  - Chapter 5 (“Laboratory demonstrating”) page 41 (“Learning objectives and tasks”), 42 (“Preparation”) and 46 (“Potentially tricky situations” box).
RESOURCES

- Baume, D. and Baume, C, Learning to teach: training materials for research students. Running tutorials and seminars pp.5-8, Headington, Oxford Centre for Staff Development.

- “Laboratory demonstrating”, “Tutorial teaching-Problem solving classes” and “Open discussion classes” material on the “IAD Resources on Tutoring and Demonstrating” channel in Learn