Tutorials and marking

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What do we mean by tutorials?

Terminology varies between universities.

- **Example classes:** like mini-lectures, working through set problems on the board.
- **Marking tutorials / supervisions:** providing feedback on submitted homework.
- **Walk-round tutorials / labs:** students tackle problems in class and ask for help.

Tutorials may contain elements of more than one of these.

Make sure you know what kind of tutorial it is and how it fits into the course.

Some possible purposes for a tutorial

- Provide students with **formative feedback**:
  - on their understanding of concepts;
  - on how they're doing relative to expected standards.
- Give students the opportunity to:
  - **practise** applying ideas introduced in lectures;
  - ask **questions** and take responsibility for their learning;
  - **learn from each other** (successes and failures!)
- Illustrate **how an expert thinks** through a problem.
- Build students' **confidence** — not always monotonically!
- Find out about the students:
  - their **expectations** and **prior knowledge**;
  - what they're finding difficult or easy.

Planning and choreography

A few suggestions for staying on top of things.

- Get **clear instructions** from the lecturer.
- Check out the room and the class in advance:
  - **boards**, lighting, ventilation, acoustics...
  - numbers; degree course; **special requirements**...
- Write **your own solutions** and slides, but check they're **consistent** with the lecture notes.
- Look for fresh **insights** and illustrations, even in elementary mathematics.
- Ways to mark territory and overcome **nerves**:
  - Routines: set up at your own pace and don't rush.
  - Props: pointers (non-laser); notes; lecterns...
  - Use a water bottle (0.5–1 litre for a 1 hr class).
- Arrive early. Start on time. Finish early rather than late.

In the classroom: teaching style

"Teach the students you have, not the ones you want"
— but don't let them pull your expectations down.

- Students will rapidly pick up whether or not you **care**.
- If students are struggling, you may need to:
  - **commiserate** (but be clear they can succeed in time);
  - **explain** (possibly several times in different ways);
  - be **patient** and save your **frustration** for later.
- If students are doing well, you may need to:
  - **praise** them (but beware of establishing favourites);
  - **challenge** them with something extra.
- Focus on what they've achieved and/or what they need to do next — not how smart or thick they are!
- Beware of **unconscious bias**.
- Beware of showing off. It's not about you.

In the classroom: speaking

When you're actually talking...

- **Project** your voice (keep head up etc.).
- Face the audience where possible; make eye contact.
- **Vary** pace, volume and tone.
- Do maths **live** — don't just reproduce the solutions.

Are they still following you?

- Be aware of your audience, but don't over-react:
  - concentration can look like boredom;
  - misbehaviour may indicate failure to cope.
  - Don't become hostage to the weakest students!
- Ask and invite **questions**.
- **Silence** can often pull attention back.

In the classroom: asking and answering questions

Good questions get students to participate. This is hard!

- Do you want questions to:
  - make the class **fun** or **challenging**?
  - give the students **something to ponder** later?
- Very general questions often get no response
  — **specific** questions prompt more meaningful answers.

Think carefully about how to answer students' questions.

- Some good responses to a sensible question:
  - go through a **similar example**;
  - **Socratic** questioning;
  - admit you need to think about it and get back to them!
- Some traps to avoid:
  - **doing the work** for them;
  - sounding **patronising** ('clearly', 'trivially', etc...);
  - treating **very stupid questions** with contempt.

In the classroom: coping with problems

Most successful classroom management relies on:

- clear **ground-rules**, enforced **consistently** from the start (tough to soft can work; soft to tough never does);
- **organisation** and (self-)discipline on your part;
- **back-up** from the lecturer in charge and the department.

Risky/unwise strategies include:

- trying to be popular;
- trying to be "inspirational".

If students do play up:

- **address individuals** and get the class behind you;
- be **polite** but not hesitant;
- if you issue a **warning**, always follow it through.

Marking: general principles

All feedback should help students to **improve**.

- Make clear on each script:
  - what they've got right and wrong
    (use **ticks** and **crosses** to indicate this);
  - what they should focus on next time
    (use **written comments**, perhaps beside the grade).
- Avoid the temptation to write anything rude.
- Marking in **red pen** is fine.
- Give summary **grades** or marks iff you have to.
  - Many students obsess about their grades and ignore other feedback.
  - Tell students what their grades mean (if anything).
  - Deal with **complaints** courteously and individually.
  - Never return scripts in order of achievement.

Marking: an exercise for you

On the handout you have two students' attempts at a first-year maths question.

The correct answer is $x_1 = -1$ and $x_2 = 4$.

Stage 1. Mark each of the attempts (without consulting) in the range 0–9, and record the mark.

Stage 2. Now mark each of the attempts using the marking scheme, and record the mark.

Marking: partial credit

Partial credit is always somewhat subjective.

- If **consistency** is important, the lecturer should provide instructions and/or a detailed marking scheme.
- If an error is **carried through** consistently then
  - try not to penalise the student more than once...
  - ... unless it makes the rest of the question easier!
- If the question specifies the **method** that should be used, don't give credit to answers that use a different method
- If the question doesn't specify the method that should be used, give full marks for any valid method.
- Be very careful marking **'show that' questions** in which the answer is given.

Marking: ethical issues

As a marker you are in a position of trust. Don't do anything that might look like abusing this!

- You must not assess someone's work if:
  - you know them socially or are related to them;
  - you are or have been in a relationship with them;
  - you are tutoring them privately.
- In **summative** assessment you must mark all scripts to the same standard (anonymously if possible).
- In **formative** assessment you can customise the feedback a little — but don't overdo this.

If you suspect that students are **cheating**, then pass it to the lecturer immediately. Don't try to deal with it yourself.

Take-home messages

With any luck, all of the following seem obvious.

- **Prepare** thoroughly, especially for easy material.
- Consider how what you do and say will help the students to **improve**.
- Be firm about **behaviour**, esp. at the start of a course.
- Sometimes things screw up. This happens. It's not necessarily your fault!

Some suggestions for further reading and advice are on the handout...