

Microteaching: An Introduction (for TAs)

As a TA, regardless of the nature of your appointment, you will at some point be placed in a position of imparting the knowledge and skills that you have to others. This may take the form of a traditional lecture, a discussion, perhaps as part of a break-out session, or an individual one-on-one or small group study session. Whatever the occasion, as a graduate member of the academic community, you should be prepared.

As a first step in meeting that challenge we are asking you, regardless of your previous teaching experience, to prepare a mini-lesson in which you practice the principles of effective teaching. Since there is a considerable range of talent and abilities represented by any incoming cadre of TAs, we have decided that the best way to maximize the potential represented is to divide you randomly into groups in order to allow the group as a whole to benefit from the lessons that can be learned from participating in such diverse learning and teaching experiences.

Each group will be led by an experienced TA, teaching staff, or faculty member who will function as the group facilitator and mentor. This group leader, as you will see, will spend much of the time during your first meeting going over the basic requirements of the mini-lesson. Since we are aware that you will be employed in different teaching modes once you get to your departments, we encourage diversity in selecting the style of your presentation. The range of possibilities stretches from the traditional lecture presentation to interactive lecturing to directed discussion.

Your first step will be that of choosing a topic; this topic should be one in your discipline, preferably one that is straightforward and one that you know well. Remember that this is not a graded exercise, so don't worry about choosing the absolute right one, but do select one that allows you to work with foundational skills and processes, rather than sophisticated content. Although your current "class" consists of your fellow TAs, who are obviously good students, they are meant to represent—and probably are—students who have little knowledge of your subject area.

Having chosen the topic, your next decision will be the manner or modality of its presentation to the class. Do you plan to simulate an actual lecture, a discussion, or an active interactional learning experience? Your choice will depend somewhat on the topic, but this choice is also designed to allow you to structure the microteaching experience around what you anticipate most likely to be involved with when you get to your separate departments.

Although the form of your presentation will differ to a certain extent based upon the mode selected, we believe that any good teaching session, regardless of its form, benefits from a consideration of some basic principles, and with that in mind we have put together a Lesson Worksheet that you might find useful in the conduct of your mini-lesson. You should expect to begin working on this worksheet during your initial group session and should share it with your group leader.

Your group leader will guide you through the whole microteaching process. You will receive written feedback from your peers in the room that should help you construct short- and long-term goals as you progress through your TA duties at UK. You will also receive the video file of your mini-lesson, which will allow you to see yourself as your students may see you—an initially unsettling but ultimately constructive experience. The overall goal of microteaching is to help you become a self-reflective practitioner in your TA roles in the classroom and lab, and, by extension, in your career.

Microteaching

A Micro-Introduction

The Graduate School, University of Kentucky
Developed by Dr. Morris A. Grubbs, July 2009

What is Microteaching?

- A training concept that originated in the Stanford Teacher Education Program in the 1960s
- A teaching-simulation exercise that will provide you with immediate supportive feedback
- A set of best practices for you to follow (or at least consider) when teaching your students
- An opportunity to practice skills useful beyond the classroom (e.g., presenting at a conference, job interviewing, speaking with the public about your research)
- An orientation component consistently rated beneficial

A Learner-Centered Experience

- Microteaching is a way for you to hone your skills in a supportive peer-learning environment.
- You will see that your peers share with you many of the same struggles, the same weaknesses, the same strengths.
- You will recall techniques or learn new ones by observing your peers.

Choosing a Mini-Lesson Topic

Your topic should be

- ✓ relevant to your discipline
- ✓ narrow and small-scale
- ✓ aimed at first-year college students
- ✓ a lesson you might teach early in the semester
- ✓ appropriate for interactive learning

What Does Not Work Well as a Topic?

- A section from your thesis
- A paper you've written for a conference
- A subject more appropriate for your peers in graduate school
- A lesson that requires multiple technical terms and jargon
- A topic that is too broad to cover effectively within the scope of eight to ten minutes

A Sample Mini-Lesson

Learning Context: An entry-level writing course; a unit on effective punctuation in standard English prose

Lesson Topic: Conventional usages of the colon

Learning Goal: By the end of the lesson, students will be able to recognize and employ two conventional usages of the colon

Sample Lesson Plan Outline

I. Opening (2 minutes)

Ask students to take a minute to jot down a brief sentence illustrating a common use of the colon. Quickly write one of your own examples on the board illustrating an explanatory relationship between complete thoughts (as in the example below). Ask students to consider if their examples match yours in the way the colon is used (most of theirs will likely illustrate a colon signaling a list). Ask a volunteer to explain the relationship between the two thoughts in the sentence on the board. Suggest why this lesson could be useful: a colon can signal a meaningful connection between complete thoughts and thus facilitate quick reading comprehension.

Example:

This film has been modified from its original version: it has been formatted to fit your television screen. (Note that the motion picture industry often punctuates these thoughts as two separate sentences. Which version might be stronger and why?)

II. Body (5-7 minutes)

Ask a student to volunteer an example of a colon signaling a list, perhaps one that he/she jotted down earlier. Write it on the board. Assess whether it uses the colon conventionally (or "correctly" according to "rule books") and explain why.

Some types that might be offered:

A. **The items I enjoyed the most at the restaurant were: grilled salmon, jasmine rice, asparagus, and bourbon pie.** (point out that no colon is needed here and explain why)

B. **Alfredo sauce consists of: butter, parmesan cheese, heavy cream, and black pepper.** (again, no colon is needed)

C. **The restaurant offers three low-fat side dishes: steamed broccoli, roasted zucchini, and long-grain rice.** (good use of colon because it comes at the end of a complete thought and signals that what follows are the items; point out alternative phrasing without colon: e.g., For its low-fat side dishes, the restaurant offers steamed broccoli, roasted zucchini, and long-grain rice.)

If time allows, revise a pair of linked independent thoughts to show alternative punctuation and connector words; briefly discuss colon usages relevant to genre and audience.

III. Closing (1-2 minutes)

Draw to a close by reasserting the two conventional colon usages your students have learned:

1. Use a colon after a complete thought to signal an explanation or exemplification or cause.
2. Use a colon after a complete thought to introduce a list.

End with a little humor by writing the following sentence (from Lynne Truss's *Eats, Shoots & Leaves*) on the board, which will also serve to introduce the next unit on semicolons:

I pulled out all the stops with Kerry-Anne: I used a semicolon.

Name _____

Mini-Lesson Preparation Worksheet

LEARNING CONTEXT: In what course and in what unit within the course would this mini-lesson occur?

PRE-INSTRUCTION PLANNING

What is the topic and is it sufficiently narrow for the limits of the mini-lesson?

What mode of teaching will you be simulating, and what is your pedagogical purpose in selecting this particular method of presentation?

Will you be asking students to role-play? How so?

Will there be handouts for the students to see or read as part of your presentation?

What is the learning goal? By the end of this lesson, my students will be able to . . .

To what degree will interaction inform your method of presentation? When will it take place in your lesson, and how long will it last? Explain.

If you are using discussion techniques, will you break the students into small groups or use think-pair-share (see “Quick Guide to Instructional Terms” in your *TA Handbook*)? Why?

Will you use an engagement trigger, such as a graph, PowerPoint slide, or image to capture the attention of your students? Describe.

LESSON STRUCTURE

Opening:

How will you present the learning goals you hope to accomplish?

How do you plan to make your topic relevant to the students? What academic need will it fulfill?

Body:

What are the key points you hope to cover in your presentation? How many do you plan to present?

Are you planning to summarize these as you move through the lesson? What manner of transitions are you planning to use?

Have you planned any specific activities that will require set-ups or handouts? Explain.

Conclusion:

What kind of summary or review do you have planned? Do you plan to mimic the opening statement or structure your conclusion around the discoveries of your presentation? Why?

If you are using one of the interactive techniques, do you plan to evoke the concluding remarks from the students in their own words? Explain.

How do you plan to bring the session to a close? Will you be asking for feedback from the students as part of the conclusion? Explain.

Post-Instruction Feedback

Following your simulation each of the students in the group will have a chance to comment on your presentation, both on the **Student/Peer Feedback Form**, which will be distributed by the group leader, and verbally in discussion as time permits. This generally leads to valuable observations and insights from the other TAs, so don't be surprised if the discussion leader asks the group how you did in your presentation.

Mini-Lesson Preparation Checklist

This worksheet can be used as a guide for preparing to present in a lecture format, though most of the skills and behaviors apply across instructional modes.

Statement of Learning Goal: By the end of this lesson, my students will be able to . . .

Opening of Lesson	Preparation
Provides lesson context & relevance	
Asserts learning goal	
Body of Lesson	Preparation
Defines any terms needed to understand concepts	
Uses effective examples, illustrations, anecdotes, etc.	
Clearly distinguishes main points from supportive details	
Organizes/sequences information for optimal learning	
Offers clear transitions between major points	
Stays on topic & achieves stated learning goal	
Closing of Lesson	Preparation
Reasserts learning goal	
Offers final thoughts (on implications, previous lesson, future lesson)	
Teacher Presence	Preparation
Checks & responds to student understanding/needs	
Attempts to engage group & individuals as appropriate	
Responds well to students' comments/questions	
Demonstrates confidence, rapport with students	
Verbal & Spatial Behavior	Preparation
Pacing and articulation	
Voice level	
Gestures & movement	
Eye contact & facial expression	
Use of board, other visual aids	
Strategic pauses & silences	
Other:	

Instructional Skills Rubric

	Excellent	Good	Needs Some Attention	Needs Improvement
Organization and Clarity	<ul style="list-style-type: none"> • Effective sequencing of ideas • Successful use of transitional devices • Previews and summarizes information • Focused on topic; concise yet substantial • Effective use of supporting detail to develop topic 	<ul style="list-style-type: none"> • Apparent sequencing of ideas; at times may be somewhat loose • Transitional devices are used, but not always effectively • Attempts to preview and summarize information • Mainly focuses on topic with occasional strays, at times may lack substance or conciseness • Includes supporting details, but not always effectively 	<ul style="list-style-type: none"> • Sequencing of ideas are not apparent • Few transitional devices; • Little or no attempt to give a preview or summary of information • Often strays from topic • Information is conveyed but with inappropriate timing (e.g., too brief, too long) • Insufficient use of detail 	<ul style="list-style-type: none"> • Ideas are confused and disconnected • No transitional devices • No preview or summary presented. • Not focused on the topic; little information is conveyed; no supporting detail
Relevance of Content	<ul style="list-style-type: none"> • Information illustrated through practical examples • Clear explanation of why and how information is useful • Provides relevant examples to students to help comprehension • Uses visual to effectively supplement points 	<ul style="list-style-type: none"> • Some use of practical examples, though insufficient • Some attempts to explain why and how content is useful, but not sufficient or clear • Generally effective use of visuals, but may occasionally have problems (blocking view, misspellings, etc.). 	<ul style="list-style-type: none"> • Minimal use of examples and/or explanation of why and how content is useful • Minimal use of visuals, or visuals are poorly organized/chosen. 	<ul style="list-style-type: none"> • No use of examples • No explanation of why and how content is useful. • Visuals not used, but needed.
Teacher Presence	<ul style="list-style-type: none"> • Demonstrates confidence, poise, rapport with audience • Responds quickly and directly to questions • Answers are concise but substantial • Checks for comprehension 	<ul style="list-style-type: none"> • Some difficulty establishing rapport with audience, but generally confident • Responds to questions, but response may take time, may stray from topic, or may include too much or too little information • Sometimes checks for comprehension, but not consistently 	<ul style="list-style-type: none"> • May occasionally appear nervous, hesitant, condescending, or indifferent to audience needs • Takes too long to respond to question, does not provide adequate answers • Does not check for comprehension 	<ul style="list-style-type: none"> • Appears to be nervous, unapproachable, or unconcerned about audience needs • Unable to understand basic questions, even with repetition and modification.
Interpersonal Skills	<ul style="list-style-type: none"> • Appropriate use of nonverbal communication skills (posture, gestures, facial expressions, use of space, back channeling) 	<ul style="list-style-type: none"> • Generally appropriate use of nonverbal communication • Minor problems may be noticeable, but do not detract from verbal communication 	<ul style="list-style-type: none"> • Inappropriate nonverbal communication detracts from verbal message (too stiff, too relaxed, awkward or non-existent movement) 	<ul style="list-style-type: none"> • Repeated or constant use of inappropriate nonverbals (no eye contact, too close/far from audience, etc.)

Adapted from Smith, J., Meyers, C.M., & Burkhalter, A.J. (1992). Communicate: Strategies for International Teaching Assistants. Englewood Cliffs, NJ: Prentice Hall., and TOEFL iBT Speaking Rubrics

Discussion Session: Lesson Worksheet

Name _____ Group Leader _____

One of your options for the micro-teach is to design and execute a discussion. Discussion classes may appear deceptively spontaneous, but like a good lecture, discussions should reflect your intentional, thoughtful planning and design. Good discussions, regardless of form, should be active and encourage student engagement with the course material.

Learning Context (in one sentence describe the learning context of this discussion: at what course level, unit and/or point in the curriculum would this discussion occur?):

Discussion topic (in a word or phrase):

Learning goal: Complete the following sentence to state precisely what your students will be able to do as a result of participating in your planned discussion. **By the end of this lesson, my students will be able to**

Pedagogical Purpose What is the pedagogical purpose for your discussion and how will it serve your Learning Goals?

Discussion Format/Method What form will your discussion take and how will this serve your Learning Goals and Pedagogical Purpose?

Tools (What tools will you use to help facilitate/record the discussion? How will this material later be shared with discussion participants?):

Discussion Structure & Strategy (What major issues will you need to cover/explore during the discussion? How will you transition between them? How will you get back on track if the discussion goes astray?): **Diagram or mindmap the anticipated flow/structure of your discussion.**

Concluding your discussion:

- 1) Synthesize what you as the instructor have heard in the discussion ("This is what I have heard you say...")
- 2) Ask if there are any reactions to the commentary you have offered ("Is that an accurate reflection of what you have heard/learned today?" Why/why not?)
- 3) Make transition into topic for next class period (i.e., how does the discussion lead into the next class session/topic/material/activities?)

Discussion Session: Lesson Worksheet Guide

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Pedagogical Purpose (Teachers integrate discussion for various reasons within their courses. Are you using it as a form of learning check for content mastery? Guiding participants in exploring the implications/applications of course content? Using discussion to provide a space for students to demonstrate their ability to apply course content in novel situations? *Discussion purpose should closely align with your learning goal(s).*): What is the pedagogical purpose for your discussion and how will it serve your Learning Goals?

Discussion Format/Method (Discussions can take many forms in your classroom: guided Socratic discussion of material, small-group interactive exercises, think-pair-shares, debate, games/simulation or other methods. *Though discussions may take many forms, discussion format/method should closely align with your learning goal(s) and pedagogical purpose.*): What form will your discussion take and how will this serve your Learning Goals and Pedagogical Purpose?

Tools (What tools will you use to help facilitate/record the discussion? Lecture capture, mindmapping, whiteboard/chalkboard work, Prezi, projected documents and other tools may all be valid, depending on the structure of your discussion. How will this material later be shared with discussion participants?):

Discussion Structure & Strategy (What major issues will you need to cover/explore during the discussion? How will you transition between them? How will you get back on track if the discussion goes astray?): **Diagram or mindmap the anticipated flow/structure of your discussion.**

Concluding your discussion:

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Laboratory Session: Lesson Worksheet

Name_____ Group Leader_____

Theory (What pre-requisite knowledge is needed prior to doing this experiment? How does it relate to lecture content?)

Experiment (in a word or phrase):

Learning goal: Complete the following sentence to state precisely what your students will be able to do as a result of experiencing your mini-lesson: **By the end of this experiment, my students will be able to** (include both content and technique information).

Lesson Structure

1) Techniques

2) What data (qualitative and/or quantitative) do you expect from experiment? What ranges of values would be considered reasonable?

3) Key Observations/results (what are the relevant topics they should include in their discussion/conclusion?)

4) Conclusions (how can you help students make connections between theory and results?)

5) Error analysis (what types of error analysis are appropriate for the experiment? What are reasonable ranges for quantitative errors?)

6) Safety (how should materials be handled? Disposed?)

Communication Strategies

Display-- **key terms of concise statement**

Reexpression-- **point reworded using alternative terminology**

Elaboration-- **examples, illustrations, explanations, reasons, analogies, details (for advanced students) or relationship to other (commonly known) ideas**

Check for understanding-- **determine how you'll know if students understand the key point**

Recapitulation-- **summary of elaboration**

Restatement-- **restate concise statement and announce movement to next key point**

Conclusion

1) Ask if there are any questions

2) Facilitate student initiation of experiment.

Laboratory Session: Lesson Worksheet Guide

- Title
- Theory / Background information about the experiment
- Procedure / Technique / Methods
- Data
- Results
- Conclusion / Discussion
- Safety: Handling / Waste

Suggested modes (use one or more) of presentations of the above; ask questions during presentations.

- Theory/ Background information about the experiment:
 - Traditional chalk board presentation
 - PowerPoint presentation
 - Analogy
 - Question and Answer format
 - Group Activity involving 4-5 students: Provide guiding questions
 - Think-Pair-Share
- Procedure/ Technique / Methods:
 - Demo
 - Video
 - PowerPoint
 - Modeling: Having students do it
 - Any other ways for active engagement
- Data:
 - Show sample data
 - Estimate theoretical values

Results:

- Show sample calculation (different than what students would get)
- Conclusion/Discussion:
 - Error analysis
 - Explanation of data and making the connection between theory and methods and their own data
- Safety:
 - Handling and disposal

Interactive Lecture: Lesson Worksheet

Name _____ Group Leader _____

An interactive lecture is a teaching technique to involve and intellectually engage students as active participants in a lecture-based class by having them participate in activities and interact with the content, the instructor, and their classmates versus passively listening to the lecture.

Learning Context: Describe the learning context of your mini-lesson to include the discipline, course level (e.g., 100, 200, etc.), and size of the class

Pre-Instructional Planning:

What is the topic and nature of the content?

What is the learning goal? By the end of this lesson, my students will be able to ...

How does the interaction supplement the lecture?

Engagement Triggers and Tasks:

Will you use an engagement trigger to capture students' attention and set up the task? (e.g., a cartoon, photograph, prop, short evocative text, video, other)

What is the engagement task? (e.g., interpret a graph, solve a problem, make a prediction, brainstorm, apply a concept, other)

Interactive Technique:

What interactive technique will you use? (e.g., think-pair-share, question of the day, role play, demonstration, other)

Structuring and Managing the Interaction:

When will the interaction take place in the lecture?

How long will it last?

How will it be organized? (e.g., pairs of students, small groups, divide the class in half, other)

What are the instructions to the students? (nature of activity, time allotment, product)

How will you monitor the activity?

How will you bring the activity to a close?

Collecting and Responding to Student Feedback:

What is the nature of the feedback? (e.g., individual responses, group reports, clickers, other)

How will you respond to incorrect answers?

Excellent web site on interactive lectures:

Science Education Resource Center, Carleton College
Educational resources for geoscience instruction, but applicable across disciplines
<http://serc.carleton.edu/introgeo/interactive>