

Promoting peer discussion in (online) tutorial groups

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Course context: ANLP

- 20pt intro to NLP for MSc students
- 225 students in 20/21, very heterogeneous backgrounds.
 - 60% CS, 25% maths/sci, 15% ling/psych/other
 - 32 native languages (55% Chinese, 20% English, 20% other European)

Course goals

Historically:

- Introduce students to linguistic concepts, NLP models and algorithms
- Practice working with NL data.

More recently:

- Raise awareness of social and ethical issues.
 - Relevant Learning Outcome:

*Given a particular [dataset, task or approach], identify potential strengths and weaknesses (including **both technical and ethical issues**, where appropriate), and provide examples to illustrate.*

Previous tutorials

- Pen-and-paper exercises, a mixture of:
 - Analyzing linguistic examples (e.g., identify the syntactic ambiguity)
 - Working through models/algorithms (e.g., fill in parse chart, compute mutual information)
 - More open-ended questions (justify, exemplify, pros/cons)
- Mixed reviews wrt helpfulness, interaction

Goals for 20/21 tutorial revamp

- Promote peer learning and discussion
 - Original plan: totally self-sufficient, students organize a time themselves, no tutor present
 - Ended up using tutors, but design heavily influenced by original plan.
- Celebrate and exploit student diversity
- Greater emphasis on social/ethical issues

20/21 tutorial design

- Split tutorial sheets into “exercises” and “discussion questions”.
 - Exercises from old sheets.
 - Most have one correct answer, so we provided an autochecker (using TopHat).
 - Many discussion questions are new. Examples:
 - How does this concept/method apply to your language?
 - How do you view this ethical issue? How does it apply to your language/culture/experience?

Very popular on mid-course feedback!

20/21 tutorial design

- Students assigned to Teams groups of 5-6 by TA.
 - Used intake survey to try to get well-mixed groups

Mostly worked but a real hassle!
(Teams now does breakout rooms.)

- 5 groups meet at once with one tutor moving between them.
 - Tutor training session to practice this and explain the role: now more facilitating than explaining.

No technical problems, but mixed responses from students/tutors.

How to ensure participation?

- First group meeting with icebreaker task only
- We did assign marks for engagement:
 - Students must post to Teams in advance: a brief response to one discussion question, and a question or answer about one of the exercises.
 - Exercise solutions posted after this, but *before* group meetings.
 - One student each week (by rota) submits a 500-word summary and reflection on the discussion.

The pros...

- Most groups worked well, and many students liked the learning, community, and/or chance to discuss social/ethical implications.

The tutorial/discussion group method is really good. It helps to stay on track [...] in the week [and] discussing the concepts helps a lot with getting a better understanding.

Getting us to explain things to each other in the tutorials is good - other courses haven't mastered this. Well done.

The tutorial discussion questions have been great [for] getting at the applied element of NLP.

I like the tutorial meetings, if only to discuss how difficult everything is. It gives at least some sense of community.

The cons...

- Very common: Many students felt the pre- or post-discussion aspects were redundant or stressful.

I found that discussion group is very helpful. We can help and learn from each other. However, I think the mandatory posting in Teams and summary notes are not quite helpful and do not give us so much knowledge. It's not worth the effort.

Tutorial groups: the required posts and being able to chat asynchronously is good (we can check each other's posts in our own time), but then adding a meeting on top where we have to discuss the exact same things we already posted about is a bit useless.

Posting posts in Teams about the discussion questions makes the discussions weird because we already have written about what we would like to say. Then we simply repeat it.

I am not such a fan of the discussion summaries as I don't really see the benefit from a learning perspective - the interesting part is the discussion itself.

The cons...

- Less common: Limited time with tutors was frustrating for some students (and some tutors).

The tutorial groups are not great; having 1 tutor to so many groups is really unviable and it means that you're not really learning much.

The TA is always very rushed and constantly seems to want to move to the next group instead of taking the time to chat through a discussion.

The "tutorial" every week does not work as a real tutorial, since the tutor need to manage many groups at the same time, we often could not find any help when we need, and [...] the problems we have was left unclear every time. [...] I would rather take a tutorial that the tutor chooses some exercises and works through them in front of a larger group.

Takeaways

- 1) Consider what activities you want students to do and where is the best place to do them.
 - Autochecker encourages students to do exercises in advance, and prompts re-thinking and Piazza questions before they see the solutions.
 - That, plus posting solutions before groups meet frees up more tutorial time for peer interaction.

Takeaways

2) Activity design did promote discussion, but was too complex (for students and staff).

- For 21/22, try removing the posting and summary requirements.
 - For tutors, less admin/marking and more time with students.
 - No summary rota means no need for fixed groups; just use breakout groups.

Takeaways

3) Some students miss the “expert” explanation; but does that need small groups?

- Try for 21/22: replace unstructured weekly lecturer Q&A (poorly attended) with a more structured Q&A/problem-solving session focused largely on tutorial exercises.