Chapter 11: Debating – How to advance your students' communication abilities

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Introduction and context

Many scientists are averse to communicating science at a basic and understandable level with non-scientists; this has been a key issue with how the climate change argument has progressed in recent years. Verbal communication while maintaining composure with someone who may have a diametrically opposing view or opinion can be a significant issue for scientists.

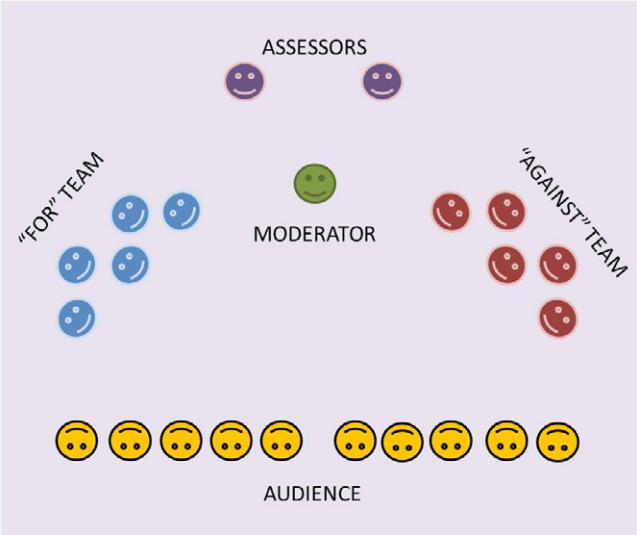

Figure 1: Debate room layout

Module Name	POL41190 Climate Change and Development
Universal Design Principles	- Equitable use - Flexibility in use - Simple and intuitive - A community of learners - Instructional climate
Discipline	Development Practice
Level	UCD level 4
College	Social Science and Law (Dr. Buggy is based in the College of Health and Agricultural Science but provides module coordination for the module as it is jointly run between UCD and Trinity College Dublin)
Learning Outcomes	The module is designed for all students to become conversant and knowledgeable of the science of climate change. Upon successful completion of this component of the module all students (regardless of their abilities coming into the module) should expect to: - Communicate relevant global climate processes and climate dynamics simply - Demonstrate awareness of current relevant climate and development discourses and negotiations - Demonstrate awareness of the main organisations, mechanisms and legislative frameworks through which climate change is being mainstreamed within development strategies at international and national levels - Demonstrate an understanding of climate justice; - Be able to communicate effectively to a wider audience - Be able to self-reflect on how debating is a learning process in its own right

Why Universal Design for this module?

The students undertaking this module come from a wide variety of backgrounds professionally, economically and nationally and many do not have a scientific background. Ensuring that they could succeed in successfully communicating scientific information to such a sceptical audience is our primary aim for incorporating debate into the module. A secondary aim is to make the module more interesting with active participation from all students, as well as ensuring that they could use the debate learning process as a way to self-reflect on what and how they learned through the module.

When students create bodies of work for their assessment that have a specific practical purpose they are learning as they progress through them and such actions are a multisensory experience (Castley, 2006). In this regard incorporating the communication mechanism of debating into the assessment strategy, the learning becomes such an experience. Through active learning in a debate scenario that has a specific purpose, students directly discover how knowledge can be utilised, and that through observation of knowledge in action the student does not have to rely on their lecturer's knowledge (Jenkins et al., 2003).

This class exercise (half day) is a summative form of assessment that leads to a self-reflection assessment for all students. The debate is held on the last day of the module (an intense two week 5 credit module) and is used to demonstrate the student's knowledge of the climate change science they have learned as well as how to effectively communicate climate change information which is often a contentious issue with climate change "deniers". The debate performance is assessed and the self-reflection of the learning process is also assessed (10% for each; 20% of the module grade).

Incorporating a formalised debate into the module as a specified learning activity that is part of the assessment allows all students the opportunity to practice communication of scientific facts regarding climate change to a wider audience. This is useful when one considers that as professionals they may be required to communicate to those that are sceptical of the science of climate change and deny that it is taking place and/or is a result of the actions of man.

The debate instruction is designed to be simple, straightforward and accessible by all students in the class that come from a wide array of educational, professional and national backgrounds with a diverse range of abilities.

Debate protocol

Communication is key to understanding many scientific concepts including climate change. While in a class room setting we can discuss aspects of the scientific and social aspects of climate change in what can be considered to be non-confrontational and safe environments, in the real world communication does not take place under such ideal conditions. Emotions and passions can run high while attempting to transfer knowledge or merely get a point across. Scientific argument can become muddied and diluted as differing agendas take precedent and jostle for position.

Acrimonious dialogue

Often times we find ourselves in situations where we do not have enough time or resources to make a significant argument during a debate or dialogue. Sometimes we are on the periphery of an argument that we cannot input much to, but can judge the argument none the less. Please remember that during a debate even when you think your comment is not worthy of interjection, it will further stimulate the debate in ways you may not understand in advance. That is the whole point of the evolution of a communication process.

The debates

The class will take part in four distinct debates and will be split accordingly into different groups. The groups will rotate through the debates and take on different roles during each debate.

In any of the three debates the class groups will take on one of these categories:

- “The For” Group
- “The Against” Group
- “The Questioning Audience”

Eight groups will be allocated on the second Monday of the module.

So during the three hours of debating, each group will have a chance to take on these roles. Each team must nominate a spokesperson to present a 5 minute team position. A coin toss will determine which team goes first in each debate. Each team can have a 2 minute rebuttal after both teams have presented their initial 5 minute team position. The rebuttal can be by any team member. There will then commence the questions from the audience. In the interest of fairness, no presentation slides will be allowed, this debate will entirely be through verbal communication.

After each question from the audience a single member of the team that is questioned (whoever from the group that considers they can answer most effectively) must answer and the corresponding team must provide a rebuttal.

Each member of the audience must provide at least one question. At the end of the answering of the question the audience member must state which group they consider provided the better answer and why. Questions are permitted for thirty minutes.

For each debate one student from "The Questioning Audience" must volunteer to moderate the debate.

Three members of the academic faculty will be the assessors and will grade each student based on their overall performance throughout the three hours. All three academics may interject as they desire during the course of the debate to add professional perspectives to the debate. The three academics will determine vote with the class to determine the winning side in each debate.

Debate topics

The range of debate topics will be provided on BlackBoard and the class can vote via an online discussion forum on the four chosen topics.

Figure 2: Student debate protocol provided in advance

The debates are for all students working together to prepare and then communicate both individually and as teams during the debate process. This helps to create a productive and positive **Community of learners**. Students vote on debate topics in advance in the online learning environment so they direct the topics they wish to debate. The debate is moderated by three faculty members and occasionally guest academics interested in communication exercises in teaching and in conflict resolution. The debate process takes place in a relaxed and convivial **Instructional climate** but students are impressed upon by their faculty on the expectations for good verbal communication and how to utilise it professionally to effectively engender change.

Design and implementation

When approaching a module design from the outset, irrespective of the delivery innovations, it is the assessment of student's learning which often proves most problematic (Savin-Baden and Major, 2004; Schwartz et al., 2001). Gaining student "buy-in" to any assessment is also a significant factor in how a student responds, while also ensuring that the assessment strategy the students "buy-in" to is aligned with the learning outcomes (Biggs, 2003; North, 2016).

Prior to the commencement of the module students are informed that the concluding day of the module will be one for discourse in the morning and debate in the afternoon. Students are thus prepared for this process well in advance. At the half way point in the module students are provided with a range of potential debate topics in an online discussion forum in a learning management system (e.g. BlackBoard or Moodle). For this module eight arguments were presented for the students to choose from allowing for **Flexibility in use**. Students as a class then are required to discuss and decide which four topics are to be debated. Potentially a vote can be conducted using an online voting tool such as GoogleDocs or Doodle.

Two days before the debate students are randomly selected into groups for each debate regardless of their gender, level of ability, educational or national background. They are placed into three groups for each debate: "FOR", "AGAINST" and "AUDIENCE". Each group has instructions for participation in the debate in the overall debate instructions provided at the start of the module (as seen in Figure 2) making the process as **Simple and intuitive** as possible. Students thus have 48 hours to prepare for the debate and the roles they must undertake. Each student has at least two roles; being in a debate team or being part of the audience.

This allows for **Equitable use** in the distribution of tasks and learning opportunities. The third role is that of voluntary moderator from the audience. Each role is defined in the debate protocol (Figure 2).

The debate should be assessed by a minimum of two faculty members that lecture within the module or are at least familiar with the module and/or the student cohort (Figure 3). The faculty members must commit to a full day of interaction with the students (discourse and discussion in the morning and debate in the afternoon).

Debate assessment

Students were graded on their participation in the debate (10% of the module) via a score sheet (Figure 4 Criteria for grading). Each faculty member acting as an assessor must grade individually. Immediately subsequent to the debate all faculty members convene to compare their assessment and arrive at a grade for each individual student (Figure 5 Debate Score Sheet).

Figure 3: Procedure for assessing the debate

Each of the four debates is 45 minutes in duration. Students must rotate positions in the room after each debate. Figure 1 outlines the layout for the room so it is essential that the debate is conducted in a room that can be reconfigured relatively easily. All students must be visible to each other, so the debate teams must be in staggered formation – in this fashion no student can hide behind another. The faculty members should be outside of the triangle formed between the two teams and the audience. Figures 4 and 5 outline the grading criteria and score sheet utilised by the faculty members for assessment.

Grading criteria

1. Did the student present the opening statement? **Yes / No**
2. Did the student present the rebuttal? **Yes / No**
3. Did the student present the closing statement? **Yes / No**
4. Did the student volunteer to act as a Moderator? **Yes / No**
5. Did the student answer a question posed by the audience? **Yes / No (indicate how many)**
6. Did the student ask a question while being in the audience? **Yes / No (indicate how many)**
7. Did the student ask a question of the opposing team? **Yes / No (indicate how many)**
8. Did the student answer a question from the opposing team? **Yes / No (indicate how many)**

Figure 4: Criteria for Grading

Student	1	2	3	4	5	6	7	8	Comments	Score (out of 10)
John	Y	N	N	N	2	3	1	1	John had a strong opening statement and posed a question to the opposing team while also answering questions. He participated as an audience member. His answers deviated from the team message.	7.0
Jane	N	N	Y	Y	0	0	0	0	Jane made very little contribution to the debate. She did not pose questions or answer any either within the debate or when she was in the audience. Her rebuttal was her only contribution and it was weak. She did however act as moderator for the second debate.	4.5
Chris										
Mary										
Ben										

Figure 5: Debate score sheet (two example students filled in)

At the commencement of the morning discourse and discussion session the Module Coordinator discusses the process of self-reflection for autonomous learners and then directs the student to review the self-reflection instructions and accompanying example that are provided on the learning management system. A self-reflective essay is submitted by the students 48 hours after the debate and is graded (10% of the module) with the provision of feedback. Figure 6 shows some of the instructions provided to students on this exercise. Students are also provided with specified learning activities to assist them in understanding more about self-reflective writing (please refer to the writing resources for students in the References and resources section of this chapter).

Debate self-reflection

500 words ± 100 words
Comprising of a brief introduction, a review of personal experience in the debate preparation and process, your self-realised strengths and weaknesses that were apparent during the process, and a conclusion of what you took from the whole debate process as a form of communication.

Purpose of self-reflection

A great deal of your time at university will be spent thinking; thinking about what people have said, what you have read, what you yourself are thinking and how your thinking has changed. It is generally believed that the thinking process involves two aspects: reflective thinking and critical thinking. They are not separate processes; rather, they are closely connected.

What is reflective writing?

Reflective writing is:

- your response to experiences, opinions, events or new information;
- your response to thoughts and feelings;
- a way of thinking to explore your learning;
- an opportunity to gain self-knowledge;
- a way to achieve clarity and better understanding of;
- what you are learning;
- a chance to develop and reinforce writing skills; and
- a way of making meaning out of what you study.

Reflective writing is not:

- just conveying information, instruction or argument;
- pure description, though there may be descriptive elements;
- straightforward decision or judgement (e.g. about whether something is right or wrong, good or bad);
- simple problem-solving;
- a summary of course notes; and / or
- a standard university essay.

How to write self-reflectively

There are many techniques which can be utilised, but at its most basic you should be able to:

- Describe what happened;
- What was your role?
- What feelings and perceptions surrounded the experience?
- How would you explain the situation to someone else?
- What might this experience mean in the context of the module?
- What other perspectives, theories or concepts could be applied to the situation?

Figure 6: Debate Self-Reflection Instructions

Results: how we know it worked

Based on the participation, the grading process and the comments received in feedback for the debate and self-reflection, the debate process maps with the learning outcomes for the module very effectively:

- Students understand the value of verbal discourse but also of self-reflection;
- Students understand that they must be able to communicate effectively at all levels and with people with opposing opinions and attitudes;
- Students understand the value of self-reflection of the learning process rather than just solely on the knowledge they accumulated in the process; and
- Comments received from the student during evaluation and via email after the module were enthusiastic and all enjoyed it as a learning experience.

Lessons learned include ensuring that all necessary instruction is clear, unambiguous and provided well in advance, that it is a gradable component of the module (the first time the debate was held in 2013 it did not go as planned nor was it graded so students did not participate fully) and that students have a say in the debate topics so that they can self-direct the learning process.

Advice for implementation

This process has been implemented in another module as a non-gradable component with adult learners – it is effective as a mechanism for learning, and enjoyed by them – but they really need to know the value of it professionally in advance. So bringing in external experts from professional bodies to moderate and discuss the process of verbal discourse with them has proven valuable.

Having all of the instructions prepared well in advance and a sequence of learning prepared for the students over the course of the module building up to the debate is essential – if it is a gradable component it should be held at the very end of the module after all of the learning materials have been provided. Also some discussion with the students on the merits of debating and providing them with a purpose for the exercise is critical to get buy in from them. Having the assessment in between 20 and 30% gives the students incentive to take part but doesn't foster nervousness amongst students that may consider themselves weak or afraid to speak up which they would be if the assessment was a higher value.

"In terms of personal growth and learning, this debate was a beneficial exercise as it stimulated informed discussion within the class, both during the debate and in preparation of it. It gave us the opportunity and space to organize and articulate our thoughts, concerns and questions cogently."

RUCHIKA MATHUR

2015 Masters in Development Practice Student

"While undertaking the Climate Change debate, our team were tasked with putting forward an argument as to why all energy and resources should be allocated to tackling reductions in carbon dioxide emissions while completely ignoring the effects of methane and nitrous oxide on the phenomenon of anthropogenic climate change. While putting forward such a polarised and necessarily rigid argument was certainly a challenge, it was also a very useful and practical challenge in order to see how one can strategically shape a message to suit your needs while essentially ignoring or discrediting other important elements of the debate (in this case the effects of other greenhouse gases on global warming)."

PAUL CARR

2016 Masters in Development Practice Student

"All in all, it was an interesting experience. It was a rather short process from start to finish and it was much more relaxed (and couldn't have been otherwise in my case) than previous, long-drawn stressful debates. I must confess I enjoyed more being audience for the other two debates, though, only if because theirs were topics that were very controvertible (crazy, even) and that was fun to play along. Ours was more serious, more in tone with what I would truly ask myself where I stand."

MARIA DEL SOL

2016 Masters in Development Practice Student

2017 Masters in Development Practice Student Kelly Williamson – "I found the debate to be an excellent exercise, for both critical and reflective thinking. I learned a lot about how to formulate a good argument and how to listen carefully to the opposition's arguments (within my group, during preparation, and from my opponents during the debate.) It helped that I was in agreement with the statement that our team was arguing for, but I realized that my big-picture mentality brought a lot to the table and was complimented well by my teammates practical, real-world inputs."

KELLY WILLIAMSON

2017 Masters in Development Practice Student

References

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Castley, A.J., (2006). Professional Development Support to Promote Stronger Teaching and Research Links. New Directions for Teaching and Learning, 107, 23-31.

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North, S., (2016). Examining self-regulated learning in an asynchronous, online course: A qualitative study. E-Learn 2016 Conference Proceedings, AACE, North Carolina.

Savin-Baden, M., Major, C.H., (2004). Foundations of Problem-based Learning. Buckingham: SRHE/Open University Press.

Schwartz, P., Mennin, S., Webb, G., (2001). Problem-based Learning: Case Studies, Experience, and Practice. London: Kogan Page.

Writing resources for students

California State University, English Programmes Guide to Self-Reflection
http://english.csuci.edu/program/sampleessay.htm

"KIBIN" Online Essay Writing Tool
https://www.kibin.com/

"The Pen and the Pad" Online Writing Guidance
http://thepenandthepad.com/