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Chapter 4
Cycle IV – Instilling a new teaching and learning environment – interactive student conferences.

Despite the apparent benefits of interactive teaching and learning described in the previous three chapters, my personal reflections on interactive teaching have led me to believe that interactive teaching is being marginalized because of the ways in which teaching and learning within Higher Education has historically been designed and implemented. Despite the efforts, which I have made to implement interactive teaching and learning in my first year teaching, I have consistently felt that Higher Education tends to "structure-out" the opportunities for interactive teaching and learning. I believe that this structuring-out process operates at two main levels:

1. In the orthodoxy that lectures remain the most effective way of teaching large groups of people.
2. In the architectural design of lecture rooms – which re-enforce the principle that information should flow from the lecturer to the students. This tends to create an alienated form of learning which while less obvious, subtly reflects the forms of nineteenth century prisons-based education described in the work of Foucault (1991) (see Plate 4.1).

Despite attempts to overcome these barriers, the majority of my teaching time is still spent delivering lectures and students continue to find it difficult to participate in interactive teaching and learning because of the physical constraints which lecture theatres place upon them. The problem is that lectures and the design of
Plate 4.1. A nineteenth century prison lecture – but do we create invisible walls around students in lectures today? (source: Foucault 1991 Plate 8).

Lecture theatres, tends to cement the power of the lecturer as the source of knowledge and learning. The only way of circumventing this power is, as Agnew and Elton (1998) suggest, to ‘demote lecturing from its primacy in university teaching’.
But deep learning is not achieved simply by involving students in a number of lecture-based activities such as buzz-groups. Getting the students to interact with the lecturer...is merely the first obstacle to overcome. The move from formal to interactive lecturing should have one further consequence – it should demote lecturing from its primacy in university teaching (Agnew and Elton 1998 page 13).

While I am not in a position to necessarily change the contemporary structure of teaching and learning in Higher Education, I felt that it was important to try and forge a type of interactive learning environment which was not simply a support to lectures. The problems with the previous forms of interactive teaching and learning which I developed, was that they were ultimately supporting teaching and learning in a lecturing environment (with the e-mail forum picking up themes raised in lecturers and the class-based group work being located within lectures). This type of interactive teaching and learning tends to re-enforce the idea that while interactive teaching and learning is useful, it is still the lecture which remains all-important. I also want to claim that the types of interactive learning and teaching reviewed in Chapter 1 also tend to support a lecture based learning system. In this Chapter I want explore a strategy for developing an interactive learning environment, which rather than supporting lecture-based teaching, provides a completely different model for teaching and learning to those presently used.

4.1. New ways of learning through interaction –

4.1.a. The plan.

In order to develop a system of teaching and learning which did not re-enforce the primacy of lectures, I decided to try and take large-class teaching out of the lecture room. I also felt that it was important to try and change the roles and relative positions of the lecturer and the students in the learning environment. I felt that the most effective way of doing this was to develop an interactive learning conference for students. The principles of this interactive student conference are set out below. The idea of this student conference was to try and
make student interaction the basis, not merely a support, for teaching and learning.

**Interactive student conference – the “World Summit at Gregynog”**.

- Because my first year course considers the issues of, and tensions surrounding, socio-economic development and the environment, I felt it would be useful to get students involved in a conference debating these issues.

- The recently convened United Nations World Summit on Sustainable Development (held in Johannesburg) was used as a model for this student conference.

- In order to take the learning experience out of the lecture theatre a weekend retreat was booked for first year students in Gregynog Hall (see Plate 4.1).

- One of the key debates at the World Summit was the issue of Global warming and how best to tackle the problem.

- The idea of the conference was that different groups of students would be given particular interests to represent within the global warming debate.

- Students were divided into groups and given generic information concerning the global warming debate, and more specific information regarding the county or organisation they were meant to be representing at the conference.

- The students were then given an hour to work in their group to decide what their position on global warming would be in the conference (they were actually asked to select from a series of options concerning the reduction of Carbon emission – from no action at all up to a 15% reduction).

- Students were then invited back into the wider group to discuss and debate their respective positions on global warming and to try and reach an agreement.
Initially students were divided into groups and given two sets of information, one giving details of the global warming debate (see Appendix 4.1), the other providing information on the country or organisation they were representing (see Example Box 4.1 and Appendix 4.2). The different groups represented at the conference were:

- The European Union
- Friends of the Earth
- New Zealand
- Poland
- Tanzania
- The World Trade Organisation
- The United States of America
- The World Media
In order to provide structure around which the individual groups could have their own discussions, they were given a list of potential options for Carbon emission reduction (see Example Box 4.2). Students were advised that within their small groups they should agree a course of action on the issues of Carbon emissions which would then be presented and explained by a spokesperson at the beginning of the conference. The group representing the world media were given the information packs for all countries and encouraged to sit in on the different small group discussions. On the basis of these observations, the media group were then invited to ask questions of the different representatives after they had delivered their position to the conference. Being in a large hall rather than in a lecture theatre was advantageous, because it meant that the small group discussions could be carried out in separate seminar rooms and the main conference could be held as a kind of roundtable discussion in a large room.

Once the small group discussion had concluded the agenda for the conference was set out as follows:

1. Welcome by Chairperson (member of staff) who introduces conference and invites participating groups to deliver their agreed positions.
2. Individual states/organisations deliver their position on Carbon emission reductions.
3. Groups are questioned by world media on why they have adopted their positions.
4. A group debate is instigated by the chair and negotiators (other) members of staff to try and forge a consensus decision on Carbon emission reduction levels.
Example Box 4.1. Conference information pack for Poland group
Poland Polska

Basic information:
Poland is a country of approximately thirty nine million people. While Poland has a varied industrial base, its largest industries have developed around its rich endowment of hard coal and lignite (southern Poland, and in particular the region of Silesia, has one of the most abundant reserves of hard coal in the world). Consequently, the Polish economy is heavily dependent upon heavy, metal-based industries and mining. Due to its mineral resources, Polish domestic and industrial energy production is dominated by coal (see below) (97% of all electricity generated in the country comes from coal-fired plants). With its dependence of coal-based industries and energy supplies, Poland has one of the worst environmental records in Eastern Europe (Pavlinek and Pickles, 1999). One consequence of this record was the emergence of a particularly vociferous and active environmental protest movement in Poland during the 1980s.

![Poland's 1998 Fuel Share of Energy Consumption](image)

Political change in Poland:

Since 1989, Poland has experienced major political and economic changes as it moved from a socialist to capitalist state system. Although, the transition from a communist to a liberal democratic society in Poland was driven by a range of pressures, the state of the country’s environment and the associated health problems this was causing were key factors in the political opposition which emerged against communist rule. One consequence of this is that the new government in Poland has been keen to address environmental problems as part its programme of social and economic reconstruction. For example:

- In April 1997, the Polish parliament adopted a new energy law. The law, which went into effect in December 1997, was intended to ensure that the Polish government encourages an efficient and rational use of fuels and energy for the country, taking into consideration environmental protection requirements.

- The Polish constitution now stipulates that citizens have the right to see statistics on environmental changes which were previously kept secret by the communist government.

- Poland has spent an increasing amount of its gross domestic product on environmental protection. Pollution control costs came to over $3 billion in 1999. In addition, the Polish government has passed legislation, as well as given business and industry economic incentives, to improve the country's environmental situation.

As a result of these actions, Polish Carbon emissions have reduced drastically over the last twenty years (see below).
Dilemmas!

Despite attempting to reduce industrial pollution the Polish government faces two inter-related dilemmas:
- The Polish economy is still unstable and dependent on heavy industry. Any further reductions in Carbon emissions could cause serious damage to its fragile economy.
- Poland is keen to join the European Union. It has consequently adopted the EU's "Integrated Pollution Prevention Directive" – this places further political pressure on the Polish government to reduce Carbon emissions.

Example Box 4.2. Carbon emission targets and their consequences – for small group discussions.

Carbon Emission Targets and their Consequences:

Below are listed are range of different targets for the reduction of Carbon emissions. Below each target are some of the likely social, economic and ecological consequences of meeting these targets.

Your task is to try and agree with other groups (representing other countries and organisations) which target you wish to ratify.

1. **No action** – allow Carbon emissions to increase at current levels.

Allows developing nations to expand their heavy industrial sectors and tackle poverty.
Prevents destabilisation of eastern European economies like Poland and the Czech Republic
Danger of accelerating global warming.
Increasing health problems in and around heavy industry.
2. Stabilisation – agree that all countries be allowed to maintain but not increase their current Carbon emission levels

Provides stability for oil-based economies in Middle Eastern (OPEC) nations.
Prevents heavy job losses in fossil fuel related industries throughout North America.
Does not address current problems of global warming.
Provides little incentive for countries to look for alternative energy sources to replace depleted fossil fuel supplies.
Is unfair in that it allows heaviest polluters to continue to produce most pollution.

3. 6% reduction - ratify agreement whereby all countries are required to reduce their Carbon emissions by 5% by 2015 (the level agreed at the Kyoto Summit).

Threatens key national economies of Middle Eastern (OPEC) nations.
Could threaten important industrial sectors in the developing world.
Major loss in profits for North America Oil companies and associated job losses.
Increased cost of living for average families of $4,100 per year.
Would threaten the processes of economic transition in former socialist countries like Poland.
Would affect counties with higher Carbon emissions in a disproportionate way.

Would begin to alleviate the immediate threat of global warming.
Provides an impetus for countries to invest in alternative, sustainable energy sources (like solar power and hydro-electric schemes).
Would substantially reduce problems of health (especially asthma) associated with air pollution.

4. 15% reduction - ratify agreement whereby all countries are required to reduce their Carbon emissions by 15% by 2020.

Possible collapse of national economies of Middle Eastern (OPEC) nations and associated regional instability.
Threat of rising levels of poverty and unemployment in developing world.
Massive loss in profits for North America Oil companies, resulting in political turmoil and emergence of pro-oil political opposition to government in the USA.
Economic recession in former socialist world.
Problems of fuel poverty as costs of domestic energy supply increase.

Removes immediate threat of global warming.
Promotes move towards a more sustainable pattern of social development throughout the world.

If you cannot agree on any of these four measures you may want to develop your own agreements – perhaps negotiating on the timing of Carbon emission reductions, or on different targets for different countries.

The choice of participating groups and states was designed specifically to make agreement on Carbon emissions very difficult to achieve, with certain groups being devoted to environmental protection and others to carbon based industrial growth.
4.1.b. Assessing the student conference.

Because the conference had been specifically designed to try and support more concerted forms of student interaction, and to remove the lectured-based ethos of teaching and learning, I felt that the methods of assessment for this activity should be designed to directly assess these issues. In this context the methods for assessing the student conference are detailed below:

1. To observe the types of discussion which students were undertaking in their small groups. Particular attention was given to how groups organised the interpretation and analysis of the data they were provided with.
2. To monitor the types of interaction between students participating in the conference debate.
3. To run a student feedback session on the conference to see how students felt the conference had benefited their learning development.

The first two of these assessment criteria were facilitated by participant observation note taking in the group debates.

4.2. The student conference on Carbon emission reductions in practice.

Once the students had collected their different information packs they went to their allocated rooms to begin their small group discussions (see Plates 4.2 and 4.3). It was interesting to notice how different groups responded to the information with which they were provided. Some groups sat down collectively and all read through the literature. Other groups were more systematic, allocating different people with responsibility for reading and interpreting different sections of the information packs. The early stages of this small group work appeared to provide a useful framework within which students could explore the difficulties associated with co-ordinating team activities.
Plates 4.2 and 4.1. The groups representing Poland and Tanzania discuss their strategies for the conference.
Observing the small group work, it was noticeable that students found it difficult to interpret and then discuss their data before preparing a group presentation within the hour which was allocated. It was nevertheless noticeable that all team members were getting actively involved in the debates which were informing their own group’s discussions. In this context there did appear to be a collective sense of responsibility for what their respective groups would present to the conference.

Once the small groups had completed their deliberations, they were all called to the main hall for the conference. Because of the large number of people involved in the conference, it was decided that two representatives from each country/organisation would sit at a round table with their groups immediately behind them. The idea was that the people who were sitting at the table would initially present their country’s/organisation’s position and then the group sitting behind them would defend this perspective during the wider debate. Once everyone had taken their place in the hall, the conference was opened by the staff chair (see plate 4.4). The staff chair simply described what the objectives of the conference were (i.e. to reach an agreement on Carbon emission reductions) before inviting each group to present their position to the conference. The people responsible for presenting their group perspectives did so fluently (see Plate 4.5). Crucially, however, their presentations also revealed that they had read and absorbed the information which they had been given.

At the end of each individual group presentation the press team asked a range of searching questions. Some of the questions asked by the press officers did, however, seem a little bit misleading and vague. The press questions did provide really useful way in which the strengths and weaknesses of the group presentations could be explored, and within which each group could defend their position as a team.
Plate 4.4. The staff chair opens the student conference.

Plate 4.5. The New Zealand group present their position on carbon emissions.
Once the group presentations had been completed the staff facilitators moved in to try and summarise the positions of all the parties involved. It was noticeable that the groups had adopted a wide spectrum of positions on Carbon emissions (from 15% in the EU to no change in the case of the United States of America). Once these positions had been established the staff facilitators encouraged the student groups to debate in open discussion a possible political compromise on Carbon emission reductions (see Plate 4.6). What was interesting about these discussions was that the students adopted a much more intensive and energetic style of debate to any of those I had experience on either the e-mail discussion or the class discussion groups I had run. Part of the energy and enthusiasm behind this discussion appeared to emerge from the fact that the conference involved a degree of role-play. As students adopted particular roles and performed their parts they appeared to enjoy the discussions and lose some of their inhibitions. I think that this type of learning experience is central to the ideologies behind interactive styles of education - because it involves students incorporating the learning experience into a set of discourses, or parts, which are relevant or meaningful to them. Furthermore, because of the drama and role-playing associated with the conference, it was evident that students were much more likely to put forward views and voice opinions because they were part of a game, not a necessarily a personal principle.

The open debate lasted for an hour with only limited staff input. The main discussions revolved around the political negotiations held between the European Union, The United States of America and the World Trade Organisation. The only times when staff facilitators really became involved in the conference was to clarify the rules of the negotiation or to suggest different ways in which Europe could apply diplomatic pressure on the United States of America (namely through withdrawing from the World Trade Organisation). I felt that the length of the discussion, and the difficulties involved in eventually reaching a political compromise on Carbon emission reductions, provided students with a much more meaningful understanding of the difficulties of reaching international
environmental agreements, then anything that they could have learnt in a lecture theatre.

Plate 4.6. Open group debate at the Student World Conference on Carbon emission reductions.

4.3. Assessing the student conference.

Indicator 1. The types of discussion which students were undertaking in their small groups. .

Students appeared to use their time in small groups to develop informal forms of interactive learning. They all appeared to be able to digest the information which they were given, and to talk through the options which they could take.
There tended to be less confrontational debate in the small groups, compared to the large group conference.

While work in small groups did often appear to only provide shallow forms of interactive learning (i.e. reading the worksheets together) it did enable the group members to develop important practical skills concerned with teamwork and organising the allocation of multiple tasks within a group.

**Indicator 2.** To monitor the types of interaction between students participating in the full conference.

The full conference was an undoubted success. The very fact that it lasted for two hours indicated that the students found it both enjoyable and engaging.

Initially, the presentation of group positions to the conference gave certain members of the teams the chance to develop and practice their presentational skills to a large class.

The questions which the media team asked groups were often very challenging. In this context, the initially phases of the conference also gave students the chance to defend their arguments against direct questioning and analysis. An opportunity which students rarely get during the normal course of university life.

The debates which followed the presentations, were passionate and dramatic. It was noticeable that students really got in to playing their parts and roles. At one point for example a student threw paper at the World Trade Organisation representative as they got up to speak (in support of the anti-capitalist protests). Also students booed and heckled the representative from the United States of America when they made their case.
As discussion went on it was noticeable that more and more people got very animated as they realised the difficulties of trying to forge an agreement between different parties with very difficult agendas. In particular the team representing the United States of America were the recipients of some vitriolic attacks.

It was also noticeable as an observer that people started to loose their inhibitions as the conference went on. The longer the discussion continued the more you felt that students took ownership of the conference and invested it with personal meaning. The discussions no longer seemed to be abstract, but had personal meaning to the students themselves.

I felt that through the personal experience of trying to establish international agreements on Carbon emissions that the students were able to relate to key issues much more effectively than through a simple lecture presentation.

During the conference it was noticeable that while key groups like the USA and Europe were heavily involved in the discussions, other groups like Poland were slightly more marginalized.

**Indicator 3.** To run a student feedback session on the conference to see how students felt the conference had benefited their learning development.

The following morning after the conference, the students were invited to give feedback on the session. Generally students suggested that the conference had been *fun* but also an important learning exercise. They felt that escaping the lecture theatre had provided a much more relaxed and inclusive environment to participate in interactive learning. While students felt that the conference itself had been beneficial they also claimed that the events surrounding the conference (small group work and the weekend away) had enabled them to meet new people and helped them settle in to university life.
One of the main criticisms which came from the student feedback session was that they felt that they did not have enough time in the small group session to both digest the information packs which they were presented with, and to prepare a case to present to the conference. The Press Team also felt that because they had to analyse each individual group's data sets that they had very little time.

**Reflection Box 4.1. Looking back at the student conference.**

- The student conference provided a useful basis for developing a supportive environment for interactive teaching and learning.

- The main advantage of the student conference was that it enabled students to witness the politics of international environmental agreements at first hand. Making the learning experience a more personally relevant and meaningful experience is the basic premise of interactive teaching and learning.

- By escaping the lecture theatre, and reducing the amount of staff input into the learning process, the student conference provided a more sustained and I feel effective interactive teaching and learning experience.

- My main concern with the conference was with the ways in which certain groups became excluded, or marginalized from discussions. This may in part be because of the country/organisation which they were representing, or because of the particular members of that team.

- In future it will be necessary to think about two main things:

  - How to incorporate all groups into the conference discussions.
  - How to provide more time for the groups to prepare for the conference (perhaps by disseminating data to them before the weekend.)
4.4. Conclusion – shattering the invisible boxes around students.

This chapter has discussed the structural constraints which lecture courses, and theatres place on interactive teaching and learning. In light of these restrictions this chapter has outlined one strategy for escaping the lecture theatre in order to facilitate a more dynamic and sustained framework for interactive teaching and learning.

The student conference described in this chapter provided a more student-led brand of interactive learning than either the e-mail discussion forum or class discussion groups I have previously described. By giving students particular parts and roles to play, and by limiting staff involvement, the student conference was able to invest the learning experience with a greater sense of ownership and meaning for students.

While the student conference described in this chapter, was a one off (or at best annual) event, there is no reason why such teaching and learning methods cannot be used more widely at university. It is only if we adopt such tactics that we can really begin to dismantle the walls which we construct around students in higher education.