

## **Linking Teaching with Research in the Disciplines**

### Case studies for Courses and Course teams

### A Student Organised Conference

#### **Contact details**

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### **Classification Category:**

Using assignments which involve elements of research processess

#### Context:

Course/unit/module title: Parasitology Conference

Course title: BSc Animal Science

Level: 3

### What does the teacher do?

### **Background**

Within the BSc Animal Science Degree Programme at the University of Newcastle I was teaching parasitology for year 2 and 3 students with a similar module format, including the usual written exam at the end of the module. There were no opportunities to give formative feed back to the students. The students experienced similar assessment methods throughout the degree programme; usually end of semester exams and, in some cases 15 minutes oral examinations. Diversifying students' assessment is important for the students to become self-learners and acquire life-long learning skills (Race, 2001; Gunn and Pitt, 2003; Sparagano, 2004).

Almost all our graduate students do not continue a career in parasitology so was little need for discipline related skills training. However, there was a need to give our students more experience and training in transferable skills to respond to the expectations of potential graduates' employers. There were few opportunities for interaction between the students and non-academic professionals.

In order to address the above issues, I proposed a new format for the Level 3 parasitology module: a peer assessed, student-organised conference and the introduction of a variety of assessed tasks. To speed up the process of changing a module I directly asked our Faculty Teaching and Learning Committee to agree on the new format of the module.

The new module is optional, represents 10 out of 120 credits required for an Honours degree and runs for two semesters. This is unusual within this degree programme with most modules running for one semester.

The conference is usually held in April during semester two and, after moderation, marks awarded on that day (one mark given by the public for the student group presentation and one mark given for the conference organisation) represent 50% of the module mark (see Conference marking system for further details). The other 50% are represented by continuous assessment (oral presentation, impromptu oral talk, computer-aided assessment and a written exam).

#### New methodology

Parasitology at Level 2 is not a pre-requisite for the new Level 3 module. Therefore, the module begins with lectures to allow students to get a minimum knowledge of the discipline. At the same time during semester 1 the students organised their conference committee: electing a president, vice-president, treasurer, secretary and the key positions that the students consider important such as public relation officer, sponsor officer, technical engineer, advertising officer. Each student will belong to a group of 3-4 students and will prepare an oral talk for the conference but they will work also as a class to agree on the conference format, find sponsors, and, most importantly, attract two guest speakers.

The students need:

- To organise their own group talk and agree with the rest of the class on deadline to send their abstract for the proceedings book
- Select, contact, liaise and look after two guest speakers
- Prepare programmes and leaflets
- Book lecture theatre and audio-visual equipment
- Organise catering if needed
- Liaise with the module leader, the University Press Office and other University services
- Find sponsors to balance their conference budget (having said that I always chase my own sponsors without telling the students until the end to avoid overspending on the module budget).

### Conference marking system

On the day of the conference, the public audience (friends and family, employers, academics) return two marks (see the conference evaluation form in Appendix 1). Each student will receive a mark: i) for their group presentation and ii) as a class for the conference organisation. The following week the students, during the debriefing session with the module leader, moderate the marks (see Appendix 2). Within each presentation group the students will upgrade/downgrade, if necessary, each group

member including themselves. Each individual will do the same for the conference organisation mark. Only the module leader knows which students downgraded/upgraded the others so each individual does not fear any retaliation or criticism as their peers do not know results from the other students.

A final third level of mark modification will be applied by the module leader if targets (i.e minimum of 50 conference participants and £200 sponsorship) were reached or not by the students. Penalties will be given if targets are not reached or if technical/behaviour problems are encountered during the conference. Typing mistakes in leaflets, conference programmes or web-pages created by the students are also penalised (-1 point) for the conference organisation mark so all the students share the blame, unless the problem is specific to one particular student group presentation.

If students cannot reach a consensus about the marking or if any of them appeal then a meeting will be called to get a consensual decision. However, since the introduction of the new module format (3 years) this has not happened showing a good assertiveness from the students when they are confronted with peer and self-assessment.

### Sustainability

University restructuring could become a problem as some Degree Programme directors do not want to have modules running over two semesters and would drop the Parasitology module from their programmes. You also need to convince other DPDs to open their Programme to your module so you can attract students from different degrees. This helps creates a diverse environment when the students start working together - not knowing the other students from different degree programmes mimics a professional environment when you have to work with unfamiliar colleagues.

### Further developments

- Focusing on new employability issues and eliminating the module exam will be my next objective.
- Developing a sustainable network with non-academic professionals assisting and evaluating the students
- Discuss targets and expectations from the students at the beginning of the module so less challenging situation arise at the end.
- Increase continuous assessment to develop other teaching and learning skills.

### Hot tips and things to look out for:

- Secure extra funding in case the students can not find sponsors
- Balance supervision/advice from the module leader to give enough freedom to the students to collectively make their own choice but keep an eye or the legality of what they decide.
- Indirectly monitor student feelings and performance during the two semesters
- Cross check with catering, audio-visual, press office colleagues that everything runs smoothly and liaise with guest speakers after they have been selected by the students
- Be ready to step in if students or the situation need it.

### Does it work?

A case study of the first conference (April 24<sup>th</sup> 2002) was developed by:

- (1) Assessing the students' feelings about the conference by sending them questionnaires at the start, halfway through and on the day;
- (2) Assessing the event impact from participants attending the conference (for instance organising and non-organising students, academics, and guest speakers);
- (3) Evaluating the benefits for the students and the academic staff members involved in the conference;
- (4) Evaluating the impact that the conference made on the local community (within the University and in Northeast England) and
- (5) Evaluating the organisational workload needed to realise this event (working time used by staff members and students for instance).

# 1) Assessing the students' feelings about the conference by sending them questionnaires at the start, halfway through and on the day;

Three questionnaires were given to the students following this module in October 2001, January 2001 and May 2002.

The students taking the module were neutral at the beginning but were quite low at the time of the second questionnaire. It was exam time and their first set of letters to potential sponsors did not give any positive results. Students were more relaxed for the third questionnaire given after the conference. The students following the module were disappointed that the marks given for the case-study would represent only 20% of the module marks. Given the workload associated with the conference organisation the students expected to see a heavier weighting for this component of the module assessment.

The first questionnaire was also sent to students from Year 1, 2 and 3 not following this module and to staff members either from the host department or from other Faculty departments. Level 2 and 3 students, obviously had already some ideas about what to do whereas Level 1 students were more interested in organising coffee breaks or the bar during the conference, instead of asking for some scientific responsibilities. Level 1 and 2 students were highly supportive of the new module with a 69.6% and 69.2% support, respectively, while stage 3 students gave only a 56.0%. However in this latter group, 28% of the students could not decide if it was a good idea or not to develop this new curriculum activity, whilst stages 1 and 2 students were undecided only for 4.3% and 7.7%, respectively.

# 2) Assessing the event impact from participants attending the conference (for instance organising and non-organising students, academics, and guest speakers)

People attending the conference were asked to give two marks to the students: one for the conference organisation and one for its scientific value. The two guest speakers gave a mark of 97.5 (out of 100) for the conference organisation and 62.5 for the scientific value showing their high appreciation of the students' work. Staff members from the University were also quite impressed as

they gave on average 75 and 67 for the conference organisation and the scientific value, respectively.

# 3) Evaluating the benefits for the students and the academic staff members involved in the conference

The first benefit for 23 out of 26 students is that they gained either a first or a 2.1 marks in the assessment. Therefore it seems the exercise, on a strict summative value, was worthwhile. The students also realised that this assessment was important for valorising their own CVs, a few months before looking for a first job. Three students failed the assessment, 23 out of 26 feedback sheets from the students agreed on this failure while, not surprisingly, the three failed students gave themselves higher marks. At least one of the three failed students admitted that she did not work enough.

The other positive impact was that funding to support the conference for a further five years was obtained from was gained from the FDTL3 Realworld project - the first conference was supported by a Teaching Development Grant from LTSN Bioscience. Furthermore, following this case-study my Head of School asked me to join an Undergraduate Teaching Committee, showing that this new curriculum activity has been noticed.

# 4) Evaluating the impact that the conference made on the local community (within the University and in Northeast England)

Usually young academic colleagues were interested about this new teaching approach while the majority of senior colleagues did not discuss the outcomes from the conference. As the students decided not to advertise outside our University this conference we only received feedback from two external speakers. As the students did not want to invite the media or external professionals there was really little impact on the Northeast England community. Hence, it seems it could take a few years before this conference become public and known by our local community.

# 5) Evaluating the organisational workload needed to realise this event (working time used by staff members and students for instance)

Surprisingly, the workload for the module leader and myself was minimal as it was the students decision to invite us or not to their weekly meeting. The students always sent me the minutes of their weekly meeting to keep me informed of their progress (or quite often of their non-decision progress). Furthermore the students had to prepare the programme, room and catering booking and deal with the guest speakers (who I met only on the day of the conference). Hence, the workload was far less than a traditional teaching module. The students almost never contacted the three other staff members who were available to help the students.

The students go through different phases: suspicious at the beginning of the module, stressed out middle way when almost nothing is organised, very tense a few days before and relieved and proud of their achievement after the conference. The majority of the students recognise that it is hard work to organise and run a conference but they consider that for their long-term skills and employability it was worthwhile. Questionnaires were given to first and second year students who weren't taking the

module asking them how they would organise a conference if they had to. Answers showed that students do not have clear ideas about what a conference organisation means.

Questionnaire returned by the audience are very enthusiastic but you need to know if it is coming from the students' relatives or independent sources.

The students' comments at the end of the module are positive but the high level of workload is a major drawback for them. Students from the first two-year cohort focused mainly on catering and technical aspects and very little on the scientific aspects and with no particular aspirations for their role within the conference organisation

### What problems/issues have arisen?

Colleagues who are interested in developing such a teaching module should go ahead even if other colleagues are not very supportive. However, I suggest that anybody going this route gets as much independence as possible to avoid being forced to take on board people who do not support your ideas until it works. You need also to obtain advance clearance at the Faculty Teaching committee level and may need to convince Degree Programme Directors (DPDs) that your new modules should be in their books for next year. So the highest workload was in fact associated with convincing and negotiating with other colleagues to accept this new idea.

Other prolems/issues to be aware of:

- Student groups behave differently, some want more academic presence, some do not.
- Self-assessment is the most difficult aspect of the evaluation process for the students and in contradiction with previous work (Bostock, 2000), the students found it easier to judge others than themselves. The top students (according to their peers) are always downgrading themselves and the weakest students are very often in denial returning better marks for themselves than their peers. The three key positions of President, Vice-president and Conference Secretary have always been upgraded by the student group in the last three years.
- Peer assessment brings a higher degree of reliability, as the students are mainly working independently during the conference organisation, away from the module leader, so the peer assessment prevents some problem related to single assessor (Race, 2001).
- The conference participants come from different scientific background and return different marks. Some of the audience, notably friends and family, are over generous and do not always following the university marking system.
- Indirectly monitor students and situation to check that a conference product will be delivered.
- Cross check marking within groups (oral presentation group or external grouping such as degree programme, personal links between students...).
- Be ready to be challenged by students about the marking and if the situation is deteriorating between them.
- Discuss with the students if their marking is not homogenous.

#### Relevant references

Bostock S. (2000) Student peer assessment.

http://www.keele.ac.uk/depts/cs/Stephen Bostock/docs/bostock peer assessment.htm (December 2000)

Gunn A. & Pitt S.J. (2003) The effectiveness of computer-based teaching packages in supporting student learning of parasitology. Bioscience Education e-Journal. Volume 1, 7pp. http://bio.ltsn.ac.uk/journal/vol1/index.htm

Race P. (2001). A briefing on self, peer and group assessment. LTSN generic centre, assessment series n°9, 24 pp.

Sparagano O.A.E. (2004). Novel assignments: When the students become module leaders. 154<sup>th</sup> Meeting of the Society for General Microbiology, Bath, UK 29 March-2 April, p.24.

## **Student Parasitology Conference**

April 28<sup>th</sup> 2004 Ridley Building room 1.65



		1	Evaluation	form		
1. <u>C</u>	onference org	ganisation				
1.1.	Have you be (Yes / No)	een satisfied	with the con	ference	organised by	y our students
1.2.	How would	you rate the	conference of	organisa	ation:	
Very	good	Good	Fair	Poor		Fail
1.3.	between 1 between 6	and 100 (F 0 and 69; 2	rn a mark fo irst class be :2 mark betv ail: below 40	etween ween 5	70 and 100	
2. <u>S</u>	cientific pres	sentation				
2.1.	Have you l	oeen satisfi	ed with the	student	t scientific p	resentations
Yes /	<sup>'</sup> No					
2.2.	How would	you rate the	student scie	ntific pr	resentations:	
Very	good	Fair	Poor		Fail	

2.3. Please could you give an individual mark (between 1 and 100 again) for each group presentation:

Student Group 1 (Malaria) : Student Group 2 (African sleeping sickness) : Student Group 3 (Redworm in horses) : Any other comment?:

Thank you for your help, we hope you enjoyed the conference and we hope to see you next year

Please leave your feedback form in the boxes provided in the lecture theatre.

# Parasitology Conference

## **Debriefing Questionnaire:**

### **Student Name:**

1/ How would you rate the conference impact (1:very poor to 5: Very important)
-for team working -for scientific issues -for meeting external professionals -for boosting your confidence to speak in public -for valorising your CV
2/What did you enjoy the most during this conference exercise?
3/What did you enjoy the least during this conference exercise?
4/If we run this event again next year:
-What would be the best month to do it (from January to July)? -How long should the conference last? -Should we have students presenting either posters or oral presentations? -Should we have students presenting individual talks or group talks?
5/ What future actions should be organised to secure more sponsorship next year
6/ What future actions should be organised to get a larger audience?
7/ Would you recommend to involve Press and other Media next year?

8/ For the conference organisation
-According to you what percentage of student did overworked/worked/underworked?
-What was the easiest job within the conference organisation?
-What was the more difficult job within the conference organisation?
9/ Would you do it again next year if you could (Y/N)?
10/ What would you like to keep for the format next year?
11/ What would you like to remove for the format next year?
12/ Would you like to see more/less involvement from the module leader?
13/ Would you like to see more/less involvement from other academics if yes which ones?
14/ Would you like to see more/less involvement from other University staff members (if Yes which ones)?
15/ Any other comments?

16/Please could you evaluate the work performance for each individual in your presentation group only.

Group 1

Name	-	-	-	-	-	-	-	1	-	0	+	+	+	+	+	+	+	+	+	Other
	5	2	1	1	8	5	3	2	1		1	2	3	5	8	1	1	2	5	(justify)
	0	0	5	0												0	5	0	0	
Ryan C.																				
Sohail K.																				
Jonathan D.																				
Jonathan C.																				

### Group 2

Name	-	-	-	-	-	-	-	-	-	0	+	+	+	+	+	+	+	+	+	Other
	5	2	1	1	8	5	3	2	1		1	2	3	5	8	1	1	2	5	Other (justify)
	0	0	5	0												0	5	0	0	
Bruce H.																				
Karen C.																				
Matthew D.																				
James M.																				

### Group 3

Name	-	1		-	-	-	-	-	-	0	+	+	+	+	+	+	+	+	+	Other
	5	2	1	1	8	5	3	2	1		1	2	3	5	8	1	1	2	5	(justify)
	0	0	5	0												0	5	0	0	
Anna D.																				
Angela P.																				
Rebecca J.																				
Chris C.																				

### Group 4

Name	-	-	-	-	-	-	-	-	-	0	+	+	+	+	+	+	+	+	+	Other
	5	2	1	1	8	5	3	2	1		1	2	3	5	8	1	1	2	5	Other (justify)
	0	0	5	0												0	5	0	0	
Anna C.																				
Louise B.																				
Iona C.																				
Clare F.																				

17/For the conference organisation please could you evaluate each individual in your class.

Names	- 5	-	-	1	- 0	-	- 3	- 0	1	0	+	+ 2	+ 3	+ 5	+8	+	+	+ 2	+ 5	Other (instifu)
	0	2 0	1 5		0	3	3	2	1		1	2	3	3	0	0		0		(justify)
Ryan C.																				
Sohail K.																				
Jonathan D.																				
Jonathan C.																				
Bruce H.																				
Karen C.																				
Matthew D.																				
James M.																				
Anna D.																				
Angela P.																				
Rebecca J.																				
Chris C.																				
Anna C.																				
Louise B.																				
Iona C.																				
Clare F.																				_