

Characterising student perceptions of their learning environment

Embedding UTas GGAs into 2nd yr
Zoology practical class teaching

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**WHY DO THEY COME AND WHY DO THEY STAY?
MEETING THE NEEDS AND EXPECTATIONS OF
UNDERGRADUATE STUDENTS IN THE LIFE SCIENCES**

FINAL REPORT OF THE TEACHING DEVELOPMENT GRANT
"ENHANCEMENT OF TEACHING PRACTICES IN THE LIFE
SCIENCES: LINKING SCHOOLS AND UNIVERSITY"

**ANTHONY KOUTOULIS, SUE JONES, NATALIE BROWN
& VICKIE MOORE**

MAY 2004

CEQ

Student satisfaction

Generic skills 18%

→ Good teaching 18%

Overall satisfaction 19%

Outcomes

Full time employment 11%

Full time study 14%

The staff put a lot of time into commenting on my work

The teaching staff normally gave me helpful feedback on how I was going

The course helped me develop my ability to work as a team member

It was always easy to know the standard of work expected

The teaching staff of this course motivated me to do my best work

The course provided me with a broad overview of my field of knowledge

The library resources were appropriate for my needs

The course sharpened my analytic skills

My lecturers were extremely good at explaining things

The teaching staff worked hard to make their subjects interesting

The course developed my confidence to investigate new ideas

The course developed my problem-solving skills

The staff made a real effort to understand difficulties I might be having with my work

I usually had a clear idea of where I was going and what was expected of me in this course

University stimulated my enthusiasm for further learning

The course improved my skills in written communication

The study materials were clear and concise

I learned to apply principles from this course to new situations

It was made clear what resources were available to help me learn

It was often hard to discover what was expected of me in this course

I consider what I learned valuable for my future

Course materials were relevant and up to date

As a result of my course, I feel confident about tackling unfamiliar problems

My course helped me to develop the ability to plan my own work

The staff made it clear right from the start what they expected from students

Where it was used, the information technology in teaching and learning was effective

My university experience encouraged me to value perspectives other than my own

Overall, I was satisfied with the quality of this course

Life Sciences students DEMAND value for money!

“...paying thousands of dollars a year to learn...want to feel like you’re getting something beneficial...”

(Koutoulis et al 2004)

Students regard themselves as customers
paying for a service

(Layne et al., 1999)

So do students feel they
are acquiring useful skills?

In an attempt to bridge the gap.....

- UTas GGAs
- Discipline-specific (scientific skills)

How far apart are:

a) student expectations, and

b) my learning tasks

(designed to allow them to practice what I see as valuable skills)?

Can students relate classroom tasks to skills acquisition?

What connections do students make between:

a) learning tasks + GGAs?

b) learning tasks + specific scientific skills?

Are they satisfied with their learning experiences?

Impetus for the innovation

“I wish there had been more group work”

(student finishing 2nd yr Zoology)

“Well sure, NOW I get why we had to do it”

(repeated sentiment of honours student + sem 2 3rd yr student)

Accountability and documentation

(Ballantyne 2003, Annetta, 2004)

How do student perceptions of learning tasks differ from mine?

The proposal

Educate students about GGAs

Encourage students to think critically about:

WHAT they are doing

WHY they are being asked to do it

HOW it contributes to skill acquisition

Choice of delivery methods

Focus groups - no:

Small groups – learning exercise

Participant familiarity

Independent moderator

Online surveys – no:

Computerphobes

Time to set up (+cost?)

Lower response rates

Anti open-ended questions

So the decision
was a 3-pronged
attack

1 Implementation 2005

Week 1:

“a survey...more suitable to assess awareness, knowledge, or facts”

(Thackeray and Neiger 2004)

Use as learning task

No technophobia

Don't want flexible completion

Low cost

I am involved in the process throughout

2a Implementation 2005

Weeks 2-11

Written information in practical manual

Exercise 2

Title: Crustaceans 1

Aims: In this exercise you will survey the diversity and structural organisation of selected examples of the Phylum Crustacea, emphasising common and divergent features with reference to taxonomy and phylogeny. Examples (preserved and live specimens) anacostracans, ostracods, cladocercans, copepods and cirripedes.

- As you work through today's practical, think about each of the tasks you complete, and why you are being asked to complete them.
- Which of these Aims (above) and which Generic Graduate Attributes does each task address?
- What scientific skills are you practising today?

2b Implementation 2005

Weeks 2 -11

Reflective small group discussions at the end of practical classes

Approx. every 2nd week, included:

“Small group discussion questions – include answers to these questions in your practical book, after discussion in class:

What scientific skills did you practice today?

What generic graduate attributes did today’s tasks address?”

3 Implementation 2005

Week 12

Follow up survey, slight rephrasing of questions to encourage reflection

Encouraged them to make links between learning tasks and generic skills

What links to make?

Communication Skills

Graduates will be able to communicate effectively across a range of contexts

- Demonstrate oral, written, numerical and graphic communication (practical record keeping book)
- Present well-reasoned arguments
(use of evidence to support claims)

Did it work?

Week 1 survey

78/84 (95%) of 2nd yr students had never heard of GGAs

BUT! Of those who said no, 59/78 (76%) could list 1 or more appropriate skills

(in survey GGAs also included IL, 'observational skills', 'independent learning')

Did it work?

Week 12 survey

66/67 (99%) of students had heard of GGAs

BUT! Only 44/67 (66%) of those were able to appropriately link an example of a learning task with a generic skill

Feedback from stakeholders

Those students as 3rd years.....(in 2006)

Comments mixed – expressed lack of interest, but did acknowledge thinking more about:

”Skills for CV”

why learning tasks were “designed in a particular way”

Implementation in 2006

Continuous improvement:

Shortened pracs – less time for group discussion

Shifted GGAs to single 50 min tute session

I lead through each, translate and give examples

Then small group work to identify and example of each from own experiences, then share with class

Conclusions

- 1) It was worthwhile:
 - for me
 - for the students

- 2) I need to be much more overt about:
 - What
 - How
 - Why

- 3) Students will make links IF you translate the jargon for them – important for CEQ

Thanks for your time!

Questions or comments please,

OR

I'd love to talk to you later!

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