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INSPIRING FIRST YEAR NURSING STUDENTS STUDYING THE BIOSCIENCES

Dr Jackie O'Flaherty

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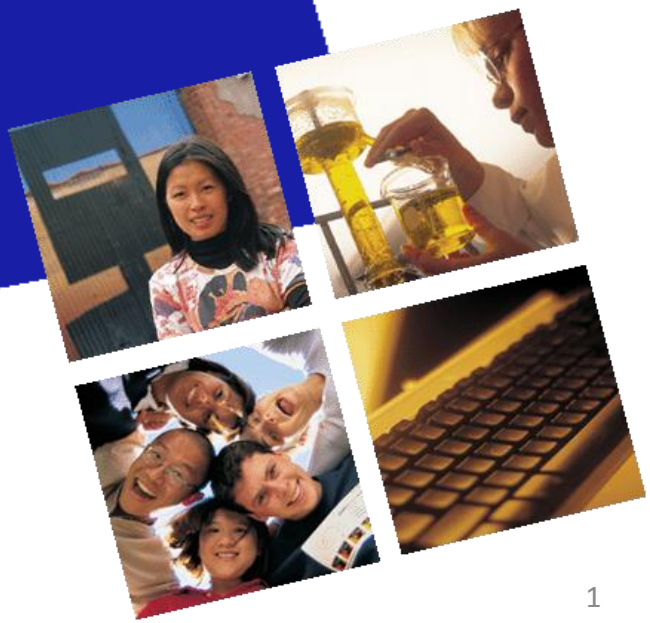

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Our University

- UniSA is the largest university in South Australia, with 36,156 students, 2396 staff, five campuses (three in Adelaide and two Regional) and an annual revenue in excess of $500 million

- Our approach to teaching and learning is student-centred, focused on higher education outcomes and delivered through flexible program arrangements

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Our Nursing program

- Three year undergraduate program
- Approximately 2000+ students in 2011:
  -620 in first year
  -845 second year
  -556 third year
- Offered in 1 city and 2 regional campuses
- Offered in internal and external mode

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Our Human Body Courses

- Bioscience component of Nursing and Midwifery: Human Body (HB) 1 and 2
- 2 x 4.5 units
- Anatomy and Physiology
- 13 weeks:3 x 1 hour lectures;1x 2 hour practicals
- 2 course coordinators: one external and one internal

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Our Human Body Students

Challenges we face teaching our students:

- Very high participation of equity groups
- High academic demands of Bioscience courses are challenging for students
- Students studying externally report feelings of social isolation
- Negative student experiences impact on student engagement and retention rates

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Our Human Body Courses

Initiatives to overcome challenges include:

1. Developing and implementing flexible, supportive **online resources**
2. Encouraging self directed learning by developing **case studies** based on real world nursing concepts
3. Recognising student achievement and providing student academic supports through a **Student Coaching Scheme**

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Online Resources

- Moodle platform
- Topic overviews
- Learning outcomes
- Power point slides and podcasts of lecture recordings
- Academic and social discussion forums

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1.Developing and Implementing Flexible, Supportive **Online Resources**

- Recording and uploading our own videos of practical demonstrations
- Online simulated practical exercises
- Tailored topic online formative quizzes...
- Power point slides and lecture recordings...
- Podcast lectures of key concepts...
- Podcast feedback of assessment results...

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Online Formative Quizzes

- Address the challenges faced by Bioscience students commencing their study with limited background knowledge of the sciences
- In conjunction with Pearson publishing, a number of developmental and formative online quizzes were developed for each Anatomy and Physiology topic
- Can be taken progressively at any time and which provide instant feedback to students on their academic progress

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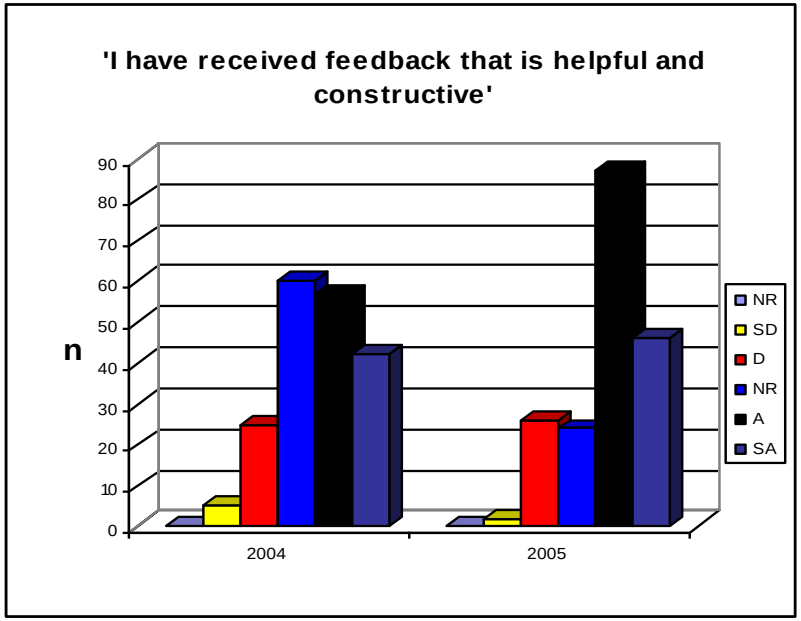
HB1 CEI comparison for 2004 (n= 189) vs. 2005 (n= 167)



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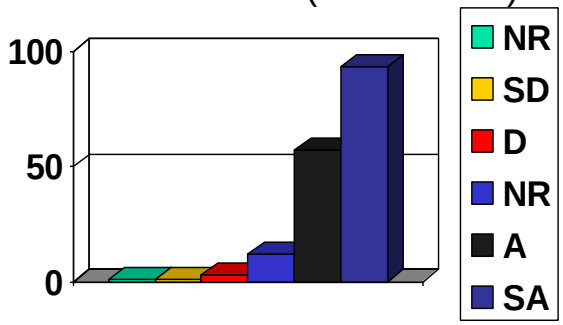
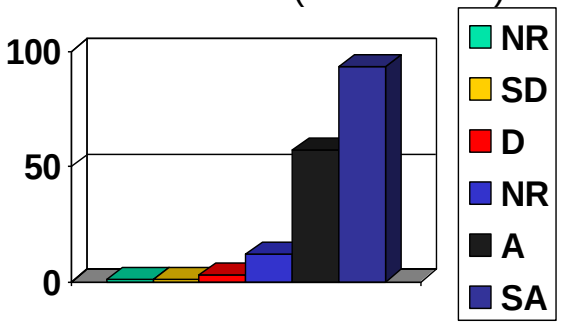
Students' perception of online quizzes

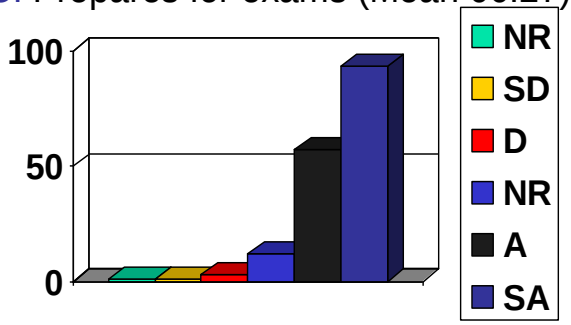
A. Instant feedback (Mean 71.69)



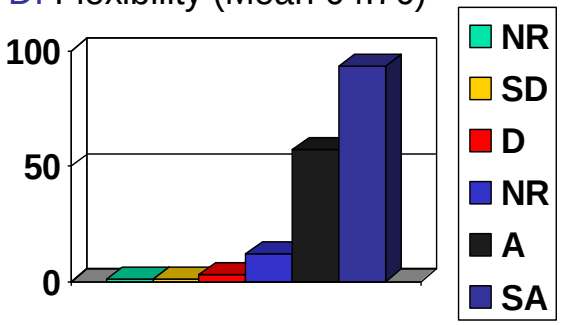
B. Areas to focus (Mean 62.73)



C. Prepares for exams (Mean 66.27)



D. Flexibility (Mean 64.76)



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Podcasts

Our experiences with podcasting of lectures:

- Its easy, cheap and simple technology, and student feedback is positive
- our studies have shown that lecture attendance is **not** diminished by the provision of podcasts
- our students **do not** tend to use MP3 players to listen to podcasts “on the go”
- most students listen to podcasts directly from home computers, often while replaying PowerPoint slides

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Podcasts

- An instructional DVD and podcast to welcome, orientate and help students adapt to the new online learning environment
- podcast lectures of lectures, key concepts and to use podcasts as a feedback tool on key assessment tasks, which provides more timely feedback to students

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Podcasts

" For other subjects I study externally the lectures have not had a big impact on me, but for Human Body the podcasts of lectures and podcasts of feedback on our assessments have made a huge difference to my understanding of topics" (CEI HB2 2009)

" As an external student podcasts of key concepts/lectures/feedback would have to be the strengths for me as I need to listen and hear the words" (CEI HB2 2009)

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2.Encouraging Self Directed Learning by Developing **Case Studies**

"It was just students posting a question and the lecturer answering them once or twice a week!"

(CEI student comment HB1,2006)

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Case Studies

- Case studies introduced using online discussion forums
- Students encouraged to post responses
- Coordinator provides timely feedback
- Solutions develop over the week prior to beginning a new topic

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Case Studies

Allows students to:

- apply concepts
- encourages and promotes self–directed learning
- promotes collaboration and teamwork
- additionally prepares first year nursing students for group case presentations in *second* year Bioscience courses

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Case Studies

"The best features of this course were the fantastic regular support and guidance on the discussion board and case study questions which allowed everyone to stay on track with study, encouraged good study habits and allowed us to review process"

(CEI student comment,HB2 2008)

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3.Providing Student Academic Supports: **Student Coaching Scheme**

Aims of the scheme:

- to recognise and reward successful senior nursing students
- provide individual and group coaching for students with little or no science background
- support nursing students who have been identified as at risk of failing their Bioscience courses (identified after the first assessment task)
- ...and reduce the workload of the course coordinator!

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Student Coaching Scheme

Extension of the SCS:

- Students run revision tutorials prior to key assessments
- HB students' response to the survey question: "Were your aims of the revision tutorial run by *student coaches* fulfilled?" was YES: **89.8%**
- SCS is now available to students across *all* Schools in the Health Division at UniSA

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Audience Response System (Clickers)

- Ideal for smaller lab sessions
- First approach – 10 MCQs post-lab session
- Second approach – number of questions limited to three and student practical group divided into sub-groups of 4 students
- Each question is highly focussed on a sub-topic of the topic under consideration, and consisted of a number of correct and incorrect statements.
- This approach provided the opportunity for considerable exploration, explanation, discussion and thinking time

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Audience Response System (Clickers)

- A survey of 192 students indicated:
- 90% agreed that ARS improved their learning
- 92% agreed that ARS made practicals and tutorials more interactive
- 85% agreed that ARS helped them focus on areas that they needed to learn
- 94% agreed that ARS provided instant feedback
- It was also noted that attendance at the practical sessions increased when we began using ARS

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Audience Response System (Clickers)

Comments in the CEI:

- "*The ARS really helped us to understand where we needed improvement without singling anyone out*"
- "*ARS is a great way to apply the knowledge learnt from the pracs and provides instant feedback*"
- "*…..it's a great way to interact with peers and has made me feel more comfortable in class*"

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Conclusion

"The best features of this course was the way it was set out for an external student…DVD's, the discussion forum, case studies, superb feedback and the fantastic lecturer were all above what I have experienced at Uni."... "I was concerned that being an external student would be a huge disadvantage, but this unit has put me at ease completely." (CEI,HB2 2007-2008)