



# Engagement with the Learning Process in First-Year Psychology Classes

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# Background

- Students of Psychology are assumed to exit the University with the following graduate attributes:
  - strong communication skills,
  - a strong knowledge base,
  - an understanding of the research methods, values, and application of Psychology in a local and global context,
  - strong information and technological literacy,
  - sociocultural and international awareness,
  - critical thinking skills, and
  - be life long learners.
- With Biggs' (2003) idea of constructive alignment as our guiding principle, we undertook a significant restructure of the first-year course.

# Teaching Context

- The first-year Psychology program
  - KHA101 Psychology 1A
  - KHA102 Psychology 1B
    - Two hours of lectures and two hours of practical classes per week.
    - The units are offered on the three UTAS campuses
      - Hobart: 300
      - Launceston: 100
      - Burnie: 30
- Psychology 1 cohort is a diverse group of students from a range of backgrounds. The students enrol with a range of previous education experience and a range of both general and literacy abilities

# Rationale

- The structure of the course did not meet the principles of good educational design
  - almost no time was spent practising scientific writing skills;
  - students' first feedback on their writing was received on the first of two equally-weighted essays or reports;
  - at no point during the program was any feedback given on the acquisition of content assessed in the final exam.
- Imperative to redesign the course in line with accepted educational design principles (e.g., Ramsden, 1992; Biggs, 2003).

# To summarise

- Feedback from staff
- Andragogy
  - Constructive Alignment
    - Learning Objectives - Teaching/Learning Activities - Assessment
  - Feedback
    - Summative assessment: used to establish whether or not a student meets given standards
    - Formative assessment: used to improve standards
      - Perceived benefits
        - Should improve final learning outcomes
        - Formally engaging students in process (Nieweg, 2004)
      - Challenges
        - Increased staff and student workloads (Yorke, 2001)

# Aims

- To improve the first-year experience
- To improve the learning outcomes of students exiting the initial year
- To more thoroughly equip students embarking upon advanced studies in Psychology with the necessary basic understanding of psychological principles and methods for successful completion of second and third year units.
- To increase the constructive alignment of the unit, particularly with reference to the teaching/learning activities

# Methodology

- Student Engagement Survey (Ahlfeldt et al., 2005) was anonymously administered to all Psychology 1 students attending practical classes on the Hobart campus in the final week of each semester (surveys were not administered in Launceston or Burnie).

# A Survey of Student Engagement

(Adapted from Ahlfeldt et al., 2005)

**Section A:** During your class, about how often have you done each of the following?

1. Asked questions during class or contributed to class discussion
2. Worked with other students on projects during class time
3. Worked with classmates outside of class to complete class assignments
4. Tutored or taught the class materials to other students in the class

**Section B:** To what extent has this class emphasized the mental activities listed below?

5. Memorising facts, ideas or methods from your course and reading so that you can repeat them in almost the same form
6. Analysing the basic elements of an idea, experience or theory such as examining a specific case or situation in depth and considering its components
7. Synthesizing and organising ideas, information or experiences into new, more complicated interpretations and relationships
8. Evaluating the value of information, arguments, or methods such as examining how others gathered and interpreted data and assessing and accuracy of their conclusions
9. Applying theories and/or concepts to practical problems or in new situations

**Section C:** To what extent has this course contributed to your knowledge, skills, and personal development in the following ways?

10. Acquiring job or career related knowledge and skills
11. Writing clearly, accurately, and effectively
12. Thinking critically and/or analytically
13. Learning effectively on your own so you can identify research and complete a given task
14. Working effectively with other individuals



# Cohort

- Surveys completed:
- Semester 1, 2006 :  $n=231$
- Semester 2, 2006 :  $n=187$
- Semester 1, 2007 :  $n=192$
- Semester 2, 2007 :  $n=186$

# Analysis

- Item (Engagement Survey Questions) x Year (2006, 2007) x Semester (1, 2) mixed ANOVAs for each Section (A, B, or C) of the questionnaire.
  - Item was a repeated measures factor
  - Semester and Year were between groups factors.
- Huynh-Feldt corrections were applied to all analyses, and follow-up Tukey post hoc tests were conducted where necessary.

# Further evaluation

- Largely qualitative in nature
  - Student Evaluation of Teaching and Learning (SETL) surveys administered
  - Student-Staff Consultative Meetings (SSC Meetings)
  - Informal, unsolicited feedback from both staff and students
  - Student comments
    - “*positive*” if students stated that they enjoyed, liked or appreciated the element, or asked for it to be continued or expanded
    - “*negative*” if they stated that they disliked the element or asked for it to be changed or removed.

# Program

- Key foci of the new course structure
  - to ensure the alignment of learning objectives, teaching activities, and assessment (Biggs, 2003)
  - to formally engage students in the learning process (Nieweg, 2004).
- A significant factor guiding the restructure
  - to increase feedback to students on their progress throughout each unit, so that they could manage their own learning (Belanger, Allingham, & Bechervaise, 2004).

# **Assessment and Practical Program**

## **Restructure**

- Introduced a series of progressive assessments to scaffold students' development in scientific writing skills.
- Learning activities in class were aligned with these assessments
  - These core changes resulted in significant outcomes.
    - Summative and formative assessment
    - Constructive alignment (Biggs, 2003) of the units
- In summary, we aligned the practical classes to the lecture content and introduced both formative assessment and new forms of summative assessment.

# Previous Unit Structure

- Practicals
  - Experiments and activities designed to complement lecture content.
  - First two practicals included skills development.
  - No feedback on content acquisition (assessed in final exam).
- Assessment
  - 20%      Essay 1 (Report 1 in 102)
  - 20%      Essay 2 (Report 2 in 102)
  - 5%        Research Participation
  - 10%      Class Attendance & Workbook Completion
  - 45%      Final Exam (multiple choice)

# Comparison of the assessment structure for 2005 (old) and 2006 (new)

## 2005

20% Essay 1 (1250 words)

20% Essay 2 (1250 words)

10% Class Attendance &  
Workbook Completion

5% Research Participation

45% Final Exam

## 2006

10% Mini-Assignments  
- information literacy  
- essay plan 1  
- summary

10% Essay 1 (800 words)

20% Essay 2 (1250 words)

10% Mini-Assignments  
- citations  
- references  
- essay plan 2

Hurdle Attendance Requirement (70%  
of practicals)

5% Research Participation

45% Final Exam

# Practical Structure

- 2005
  - First **two** practicals included skills development
- 2006
  - First **four** practicals included skills development
  - Activities in class (and for assessment) reflected process of essay preparation and writing
  - Assessment based on activities completed in class
  - Weekly **quizzes** gave formative feedback for final exam.



# Core Changes

- Feedback
  - Class activities (formative)
  - Progressive assessment (summative and formative)
  - Quiz Competition (formative)
- Constructive
  - Practise skills
    - Information Literacy
    - Essay Planning
    - Summarising
    - Citations
    - Referencing
    - Essay 1 – particularly integration

# Outcomes

- Staff
  - Quantitative and Qualitative
- Student
  - Qualitative
    - Student-Staff Consultative Meeting
  - Quantitative
    - SETLs
    - ENGAGEMENT SURVEY

# Staff

- Workload
  - Preparation of supporting materials for practicals and assessment tasks.
    - Integration of practical activities, assessment tasks and lecture content
    - Some ongoing development required.
  - Marking (e.g., 50 students / two prac classes)
    - 2005 = 25 hours marking
    - 2006 = 38 hours marking
    - Caveats
- Interest in the course
  - Involvement of staff

# Staff teaching into the second-year level in 2007

- Students who had passed through the revitalised first-year course had a better grounding in the basic statistical concepts than in previous years.

# QUALITATIVE FEEDBACK: SETLs

- Semester 1: Negative comments (mostly revolved around the number of assignments)
  - “too many small, unnecessary projects/assignments”
  - “maybe not so many mini-assignments”
- Semester 1 and 2: Positive comments (reflected the positive view which the students came to have of the progressive assessment strategy)
  - “the first assignments such as essay plan task and referencing/citation assignments were very helpful in writing the essays later on”
  - “assessments were broken into parts so we could build up to major assignments”
  - “the practicals were very well run. Especially the mini assignments which helped me understand the full report”

# QUALITATIVE – OTHER PROGRAM CHANGES

- Aligning the lectures with a new set text,
- Team-teaching approach
  - SETL comments positive: enthusiasm of the lecturers
    - “*really appreciated*” incorporation of case studies and examples, particularly in the professional areas of psychology such as clinical psychology and social psychology
    - “*the lectures were all made interesting with the different lecturers*”
    - “*lecturers were engaging, knowledgeable, and instilled a desire to further study in these areas.*”
    - “*quality of lecturers and their knowledge of topics both academically and practically was good*”

# QUALITATIVE – OTHER PROGRAM CHANGES

- Students participated in experiments
  - Results reported back to the student cohort
- Weekly quizzes on lecture content into practical classes.
  - Resulted in
    - the most positive SETL comments, in both degree and frequency, in comparison to any other aspect of the course.
    - No negative comments received through any forum (SETLS, SSC Meetings or informally).
      - *“The quizzes were good to help students continue to think about what was learnt in the lectures, and to prepare for the exam”*
- Research methods and statistics section placed in the practical program as a skill based endeavour.
  - SETL comments very positive about being taught research methods in an integrative, skill based manner:
    - *“being taught SD in pracs instead of in lectures is a good idea”*

# Qualitative

- Student-Staff Consultative Meetings
  - Progressive Assessment
    - Feedback differed between first and second semester
      - Could see the benefit in both semesters, but more positive in second semester.
    - Arts students – Science students
      - difference in attitude reported by students themselves.
  - Quizzes
    - Very popular
    - “Don’t want to let your team down”
- Anecdotal reports from staff
  - Hearing much more positive feedback than they remember previously



# Students: Quantitative

- SETL

	KHA101	KHA102
“The continuous assessment exercises helped in my learning”	$M = 3.51$ 57% agree 19% disagree	$M = 3.89$ 75% agree 12% disagree
“Assignment load was not too heavy”	$M = 3.41$ 56% agree 19% disagree	$M = 3.41$ 55% agree 23% disagree
“The practical classes aided my understanding of the requirements of writing in the field of Psychology”	$M = 3.75$ 70% agree 10% disagree	$M = 3.81$ 70% agree 14% disagree

# Students: Quantitative

	2005	2006
"The unit addressed the learning outcomes stated in the Unit outline"	$M = 4.0$	$M = 3.8$ 69 % agree 1% disagree
"The workload in this unit was appropriate"	$M = 4.0$	$M = 3.7$ 66% agree 11% disagree
"The unit stimulated my interest in the subject area"	$M = 4.1$	$M = 3.6$ 57% agree 17% disagree
"I enhanced my skills in this unit"	$M = 3.9$	$M = 3.7$ 67% agree 8% disagree

5 = strongly agree; 1 = strongly disagree

# Students: Grades

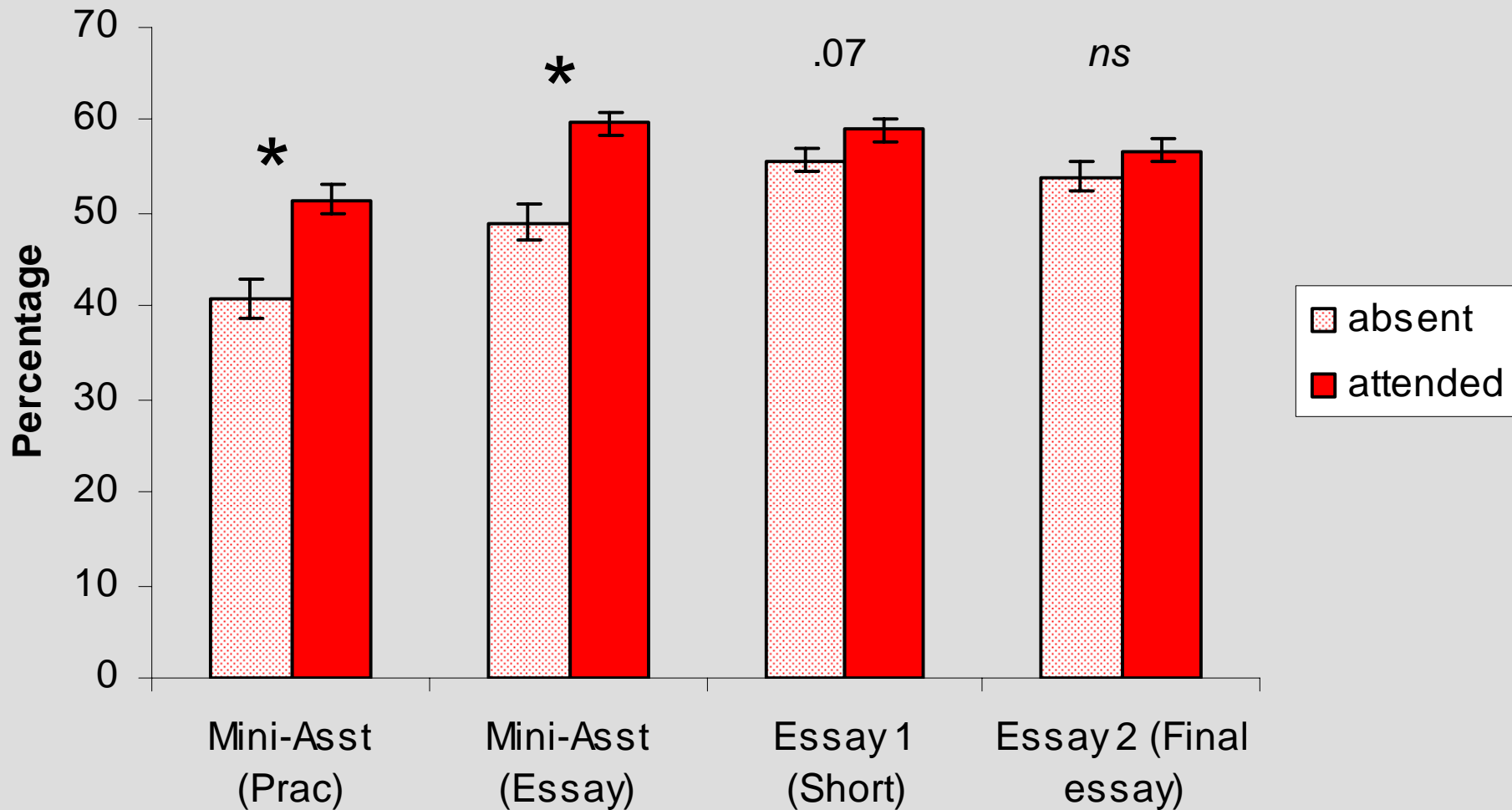


Figure 1. Attendance at essay planning lecture (CALT) and subsequent grades.

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# Mean student evaluation of engagement in 2006 and 2007.

Question	2006		2007	
	Sem 1 ( <i>n</i> =231)	Sem 2 ( <i>n</i> =187)	Sem 1 ( <i>n</i> =192)	Sem 2 ( <i>n</i> =186)
A:Q1	2.38	2.39	2.46	2.42
A:Q2	3.24***	2.87***	3.08	3.07
A:Q3	1.48*	1.65*	1.52*	1.71*
A:Q4	1.33	1.43	1.33	1.43
B:Q5.	2.28	2.28	2.29	2.31
B:Q6.	2.75	2.82	2.61	2.75
B:Q7.	2.42	2.51	2.41	2.49
B:Q8.	2.68***	2.92***	2.54***	2.84***
B:Q9.	2.74	2.74	2.63	2.74
C:Q10	2.00	2.22	1.83	2.09
C:Q11	2.49	2.72	2.49	2.77
C:Q12	2.65	2.88	2.64	2.82
C::Q13	2.68	2.81	2.69	2.78
CQ14	2.64	2.46	2.61	2.73

Scale: 1 = *very little*, 2 = *some*, 3 = *quite a bit*, and 4 = *very much*. Asterisks indicate a significant difference between mean scores for each semester: \*= $p<.05$ , \*\*\*= $p<.001$

# Workload Implications

- Increase in staff and student workloads (Yorke, 2001).
  - Preparation of supporting materials
  - Integration of practical activities, assessment tasks and lecture content
  - Marking

# Conclusions

- Improvement in adragogical practice
- Step in the right direction
- Quantification of improvements is difficult.
  - Unfortunately, hard to compare with previous years as much of the data collection was not conducted pre-2006.
  - How do we measure...?
    - what they did with the feedback?
    - improvements in skills between years if results are normed?

# Conclusion

- The restructured course clearly provided greater support for the development of students' thinking, writing, and independent learning skills than the former course
- Students were able to see the value of these learning opportunities.
- *"I was enrolled in KHA102 last year and I think the way the course has been restructured is fantastic. Well done! (I withdrew before the census date last year because I found it so confusing/boring etc). This year I loved it and my marks were heaps better too."*



# Continuing Challenges

- Generalisation across tasks needs attention
- “The formative purpose of assessment is to encourage a ‘deep’ approach to learning through students’ own activity and engagement with the subject.” UTas Policy on Assessment Practice

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