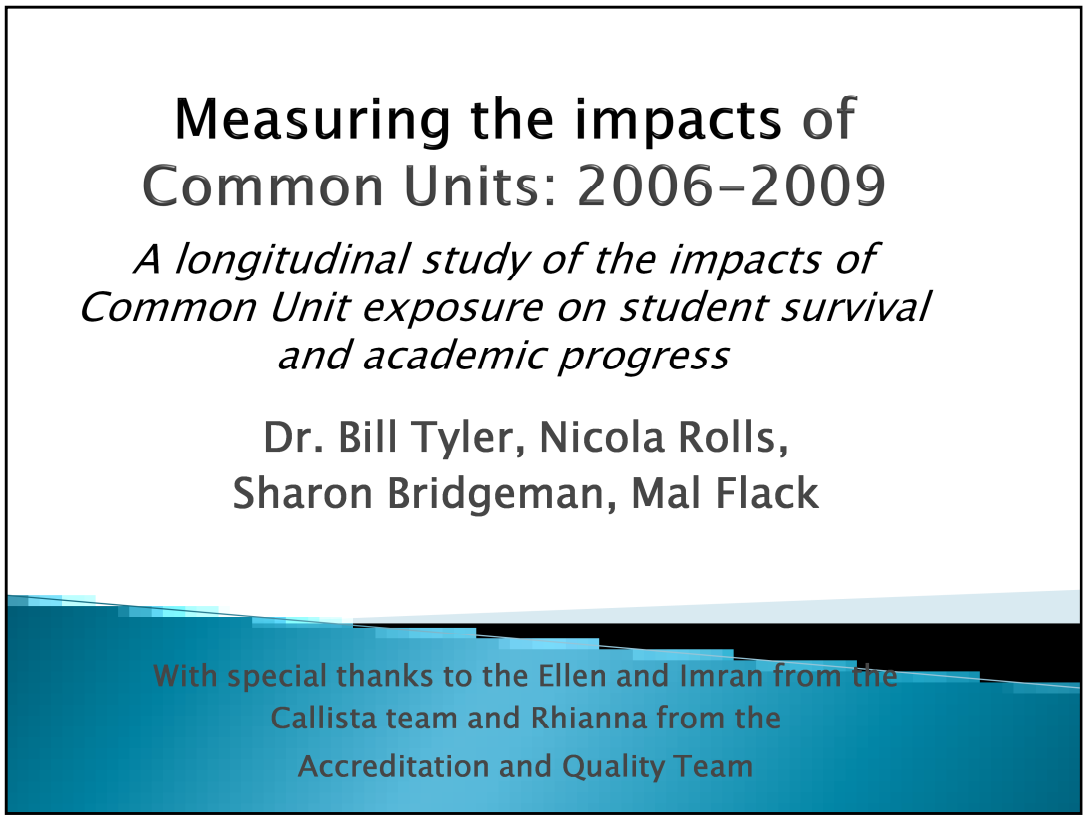


Nicola commenced the presentation pointing out that it would focus on part B of the 10 year, longitudinal study examining the impact of common unit exposure on students' survival and academic progress from 2006-2009. Nicola also thanked Bill Tyler for his continuing commitment to the project and pointed out that in his role as Principal Reseacher he has tackled some particularly complex problems. Nicola also thanked Ellen and Imran (Callista team) and Rhianna (Accreditation and Quality team) for their input.

Presentation outline

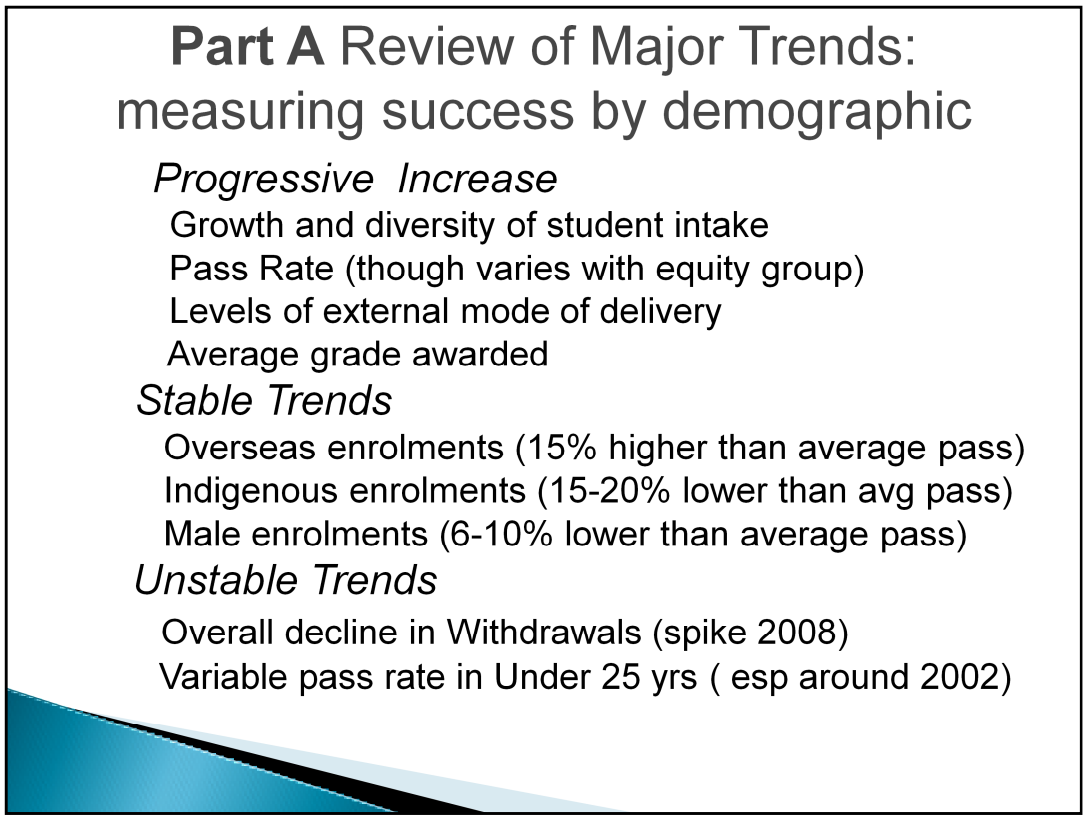
1. Introduction and Aims of project
2. Part A Overview and brief review of findings
3. Part B Overview and questions and context
4. Quantitative findings
5. Student perceptions qualitative & quantitative
6. Conclusions and further considerations
7. Questions

The presentation will cover the following

Aims of project

- *Part A Continuing*: Student Outcomes in the Common Units: Equity and Success (Presentation October 2009)
- *Part B New*: Impact of Common Units on Student Survival and Performance 2006–2009 – investigating the effect of academic skills as one variables for success

Part A of this 10 year project, has been continuing investigation into student outcomes into common units and particularly how well have equity groups succeeded. This was originally born out of an initial alarm some years ago regarding the high attrition rates from the common units. Part B commenced approximately 3 years ago looking at the impact of the common units. Of those students who stayed in the common units what was the impact in terms of their overall survival and their performance in course.

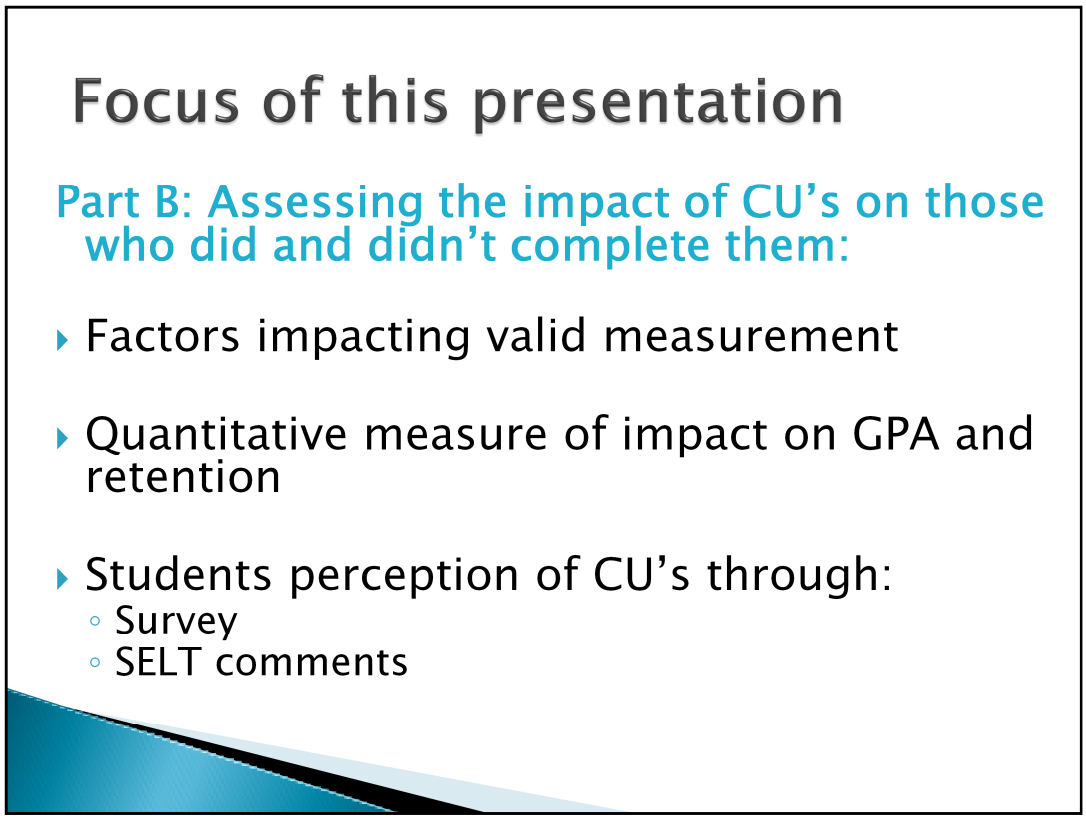


Nicola noted that Part A indicates some exciting trends for the better which reflect how the program has evolved and improved over the years.

Firstly a progressive increase in the growth and diversity of student intake, and a growth in pass rate (albeit that this varies within equity groups), growth in levels of external mode of delivery which presents another challenge, however average grade awarded has improved.

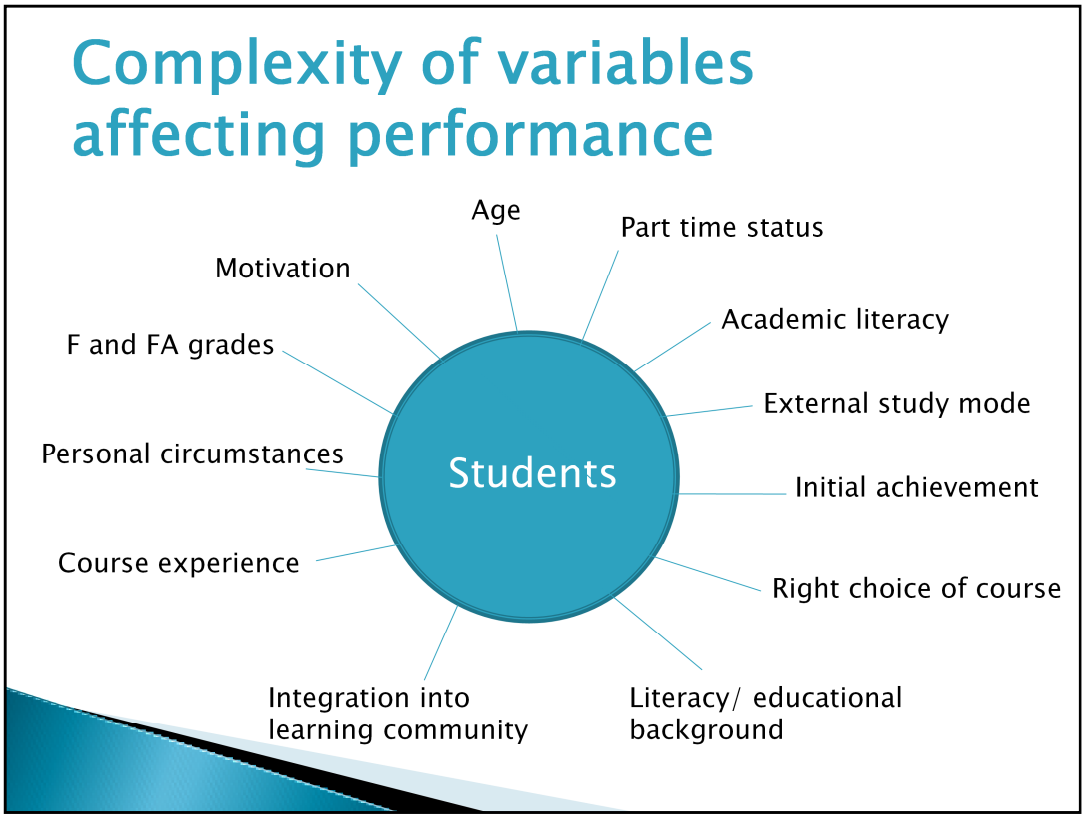
In sum, despite the challenges of growth in diversity and levels of external study common units have continued to improve the success of students. There have been stable trends at the university in overseas enrolments and overseas enrolments have achieved a 15% higher than average pass. Indigenous enrolments accounted for a 15-20% lower than average pass and male enrolments 6-10% lower than average pass.

There has been an overall decline in withdrawals, with the exception of a spike in 2008 when they increased and declined again. Variable pass rates in under 25s especially around 2002. The findings from part a have been encapsulated in the previous report (See Appendix B)

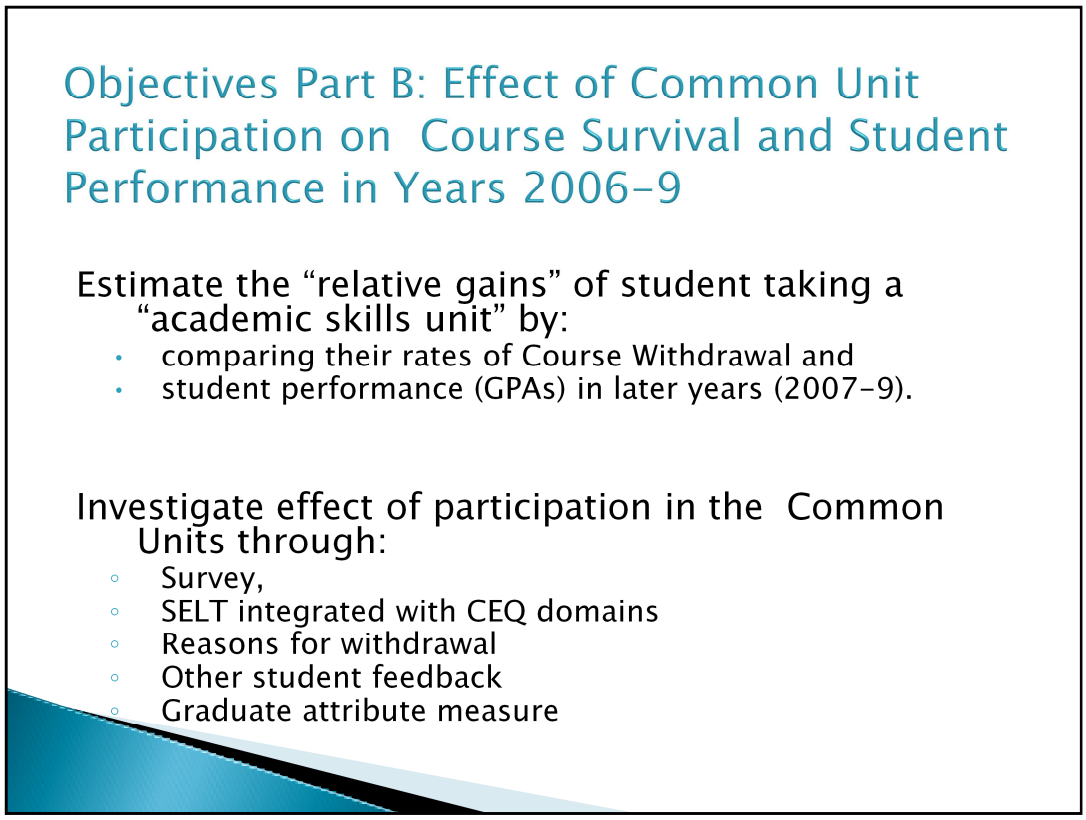


Nicola commented that the key focus for the session is part b, assessing the impact of common units on those who did and did not complete them.

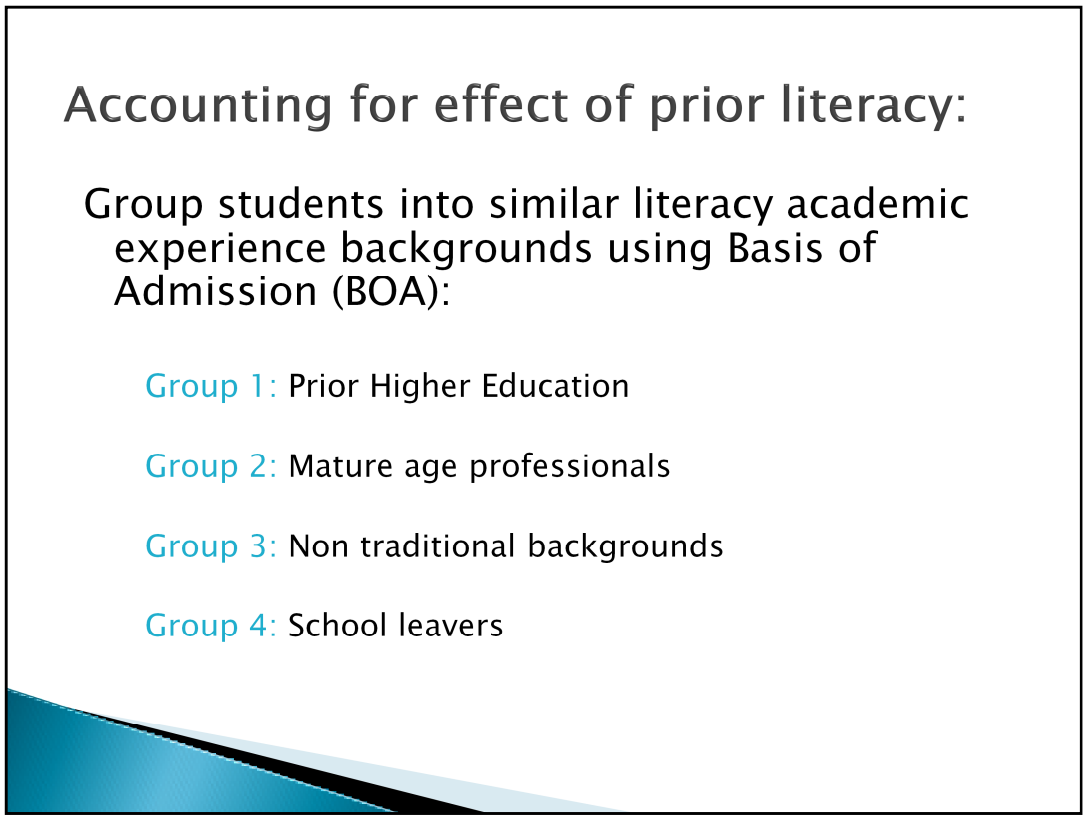
There are two parts to this, namely, the quantitative measure of impact in terms of retention and GPA, whereby the team attempted to measure the impact of the common units on students retention and GPA; and an attempt to understand students' perceptions of the common units through surveys, SELT comments and various other means.



Nicola confirmed that the research looked at all students. She highlighted the complexity of the variables affecting student performance, which include, but are not limited to, age, motivation, whether students chose to study the right course, how integrated they are and their personal circumstances etc. All of these aspects (based on a variety of literature, including Baldwin 2008, Tinto 1987, Glossop 2002, Last and Fulbrook, 2003) impact upon students' retention and GPA (success).

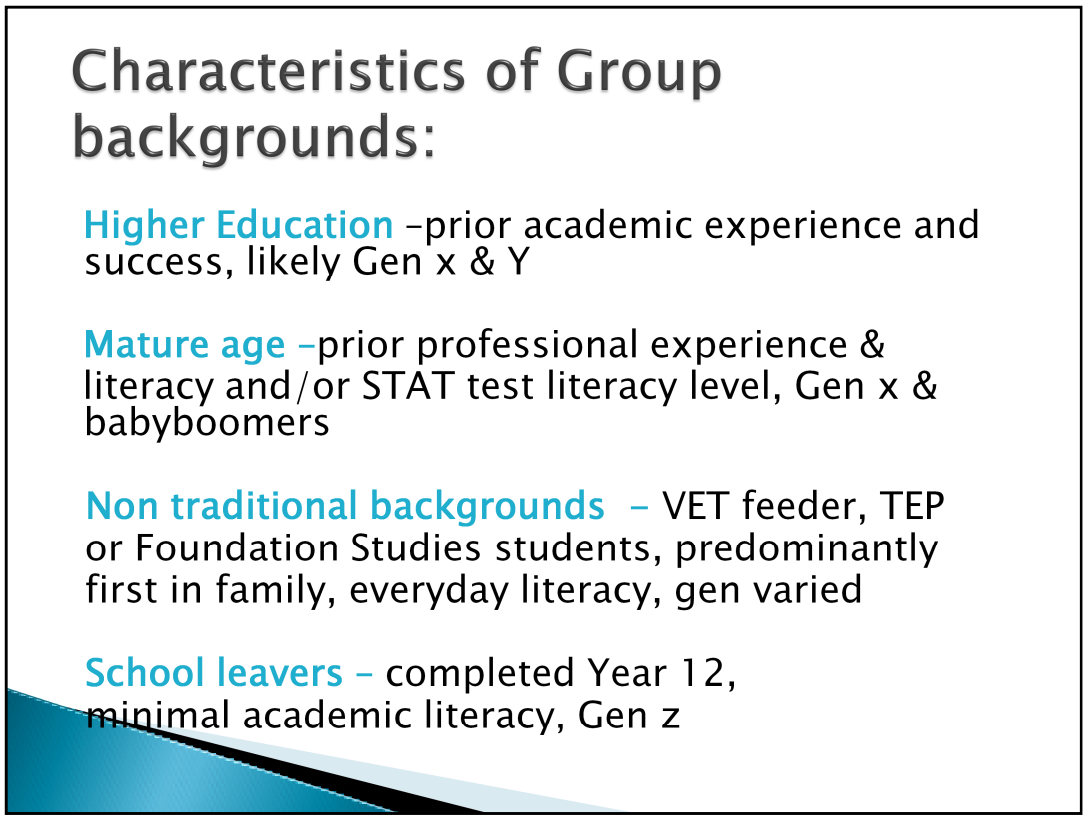


Given this understanding, the objectives of Part B were to look at the effect of common unit participation on course survival and performance between 2006-2009 and estimate the relative gains of a student taking an academic literacy common unit (CUC100/CUC106). The team decided to focus on these units specifically as they have a stronger orientation toward building academic skills. Whereas in contrast CUC107 is more focused on content and reinforcing these skills and is therefore somewhat harder to measure. The rates of course withdrawal and in the second part the effect of student participation was investigated through a survey and SELT integrated with the CEQ domains, reasons for withdrawal and student anecdotal feedback.

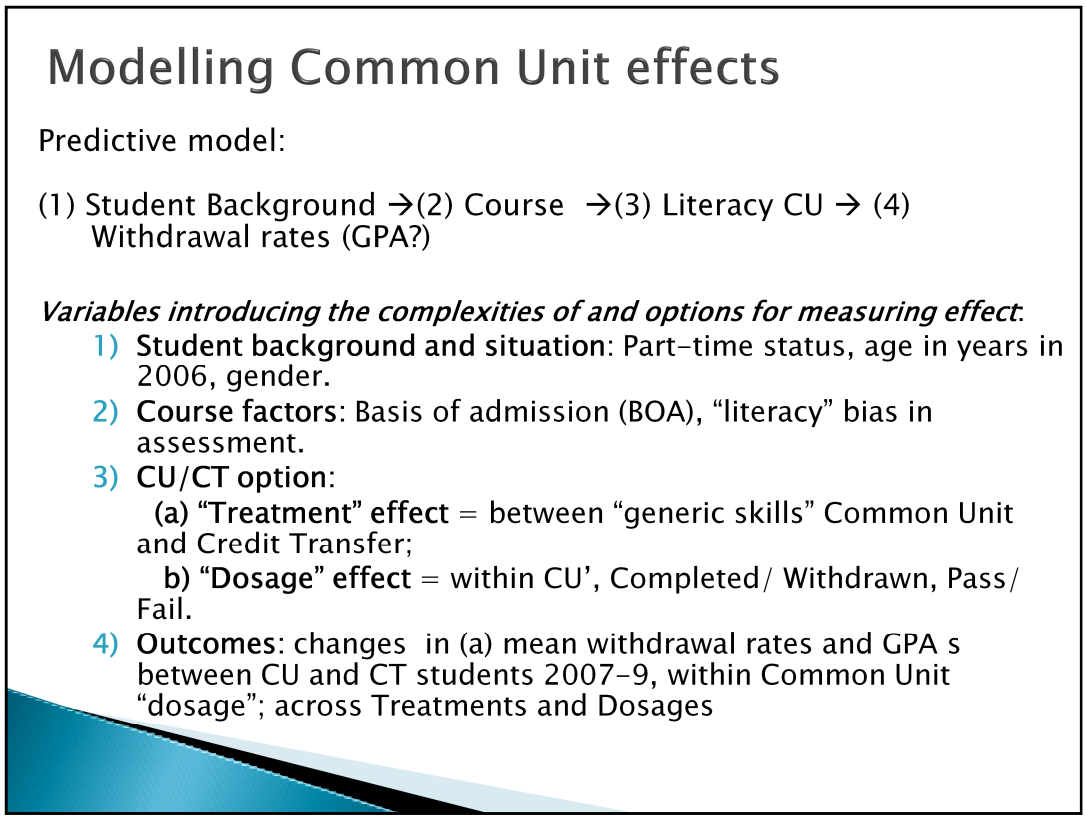


To account for the effect of prior literacy, students were grouped in such a way that they were all starting at the same place in terms of literacy. Basis of admission was sued to group students into four categories: those who were admitted through a prior education experience,

mature age professionals, students from non traditional backgrounds, and school leavers.



We assigned the following characteristics to the group backgrounds based on recent definitions literature from DEST, ACER, CSHE



Over to Bill

For this part of the project we concentrated on dosage effect, people can attend school/university but do they in fact receive the dosage or exposure to the course they are studying. Given this, should those students who enrol in a unit and withdraw be included and if they stay on did they pass/fail, there is another level and this is whether or not they got the complete dosage or full benefit of the experience.

Because for this study which is based on analysing existing retrospective data rather than a specifically designed experimental model, there isn't a control group, students are not randomly assigned to the common units or credit transfer groups. Therefore there is a distinct difference in their covariate background, part time status, age, gender etc. So we are concentrating more on the exposure and participation to the common units in the course as the main treatment variable, rather than being assigned to credit transfer. Clarifying the treatment effect – people who have studied a common unit have had the treatment (dosage) and those who have been exempted have not.

Design Dilemmas: Operational Responses

- **Problem #1: Comparing CU and CT's –"unknown unknowns"?**
  - Response: Use a "relative gains", compare "unadjusted" outcomes.
- **Problem #2: Cause or Effect Confounded?**
  - Response: Compare withdrawals in later years (2007–9) only
- **Problem #3: Withdrawals or GPA's as a measure?**
  - Responses:
    (a) Use *unit and course withdrawals* first comparison;
    (b) GPA's and related measures in later comparisons.

CW - If we saw a stark difference in withdrawals in a course or GPA from people who had only taken the CT option could we have deduced something from that.

Bill – problem with withdrawals is often students choose to withdraw from a unit and a course at the same time, we are just looking at the overall survival in the 2nd, 3rd and 4th years?. GPA has been heavily criticised here and in North America as a measure of student performance as the marking standards vary so much, so we will be looking at GPA critically in the final report.

NR - Note literacy assessment bias is in fact about literacy demand. Those who passed one of the literacy common units had a 26% reduction in withdrawal.

Data used for Analysis

- **All 2006 Common Unit enrolments** (including Credit Transfers)
- **Student academic performance** (GPA, % units passed 2006-August 09)
- **Three main data sets**:
  1. All enrolments in the year 2006? (n=3068)
  2. **Academic Skills Unit enrolments (inc. CTs) 2006=1577**
  3. Student aggregated academic skills units (n=1495)

The data sets for the quantitative analysis were outlined as above.

Which groups showed greatest benefit from participation in the Common Unit program 2006-9?

Comparison Groups (enrolments 2006):

-Completed/ Withdrew from Common Units 2006
-Passed Common Unit/ Failed Common Unit
-Credit Transfer/ Passed Common Unit

BY

Basis of Admission (BOA) to Course:

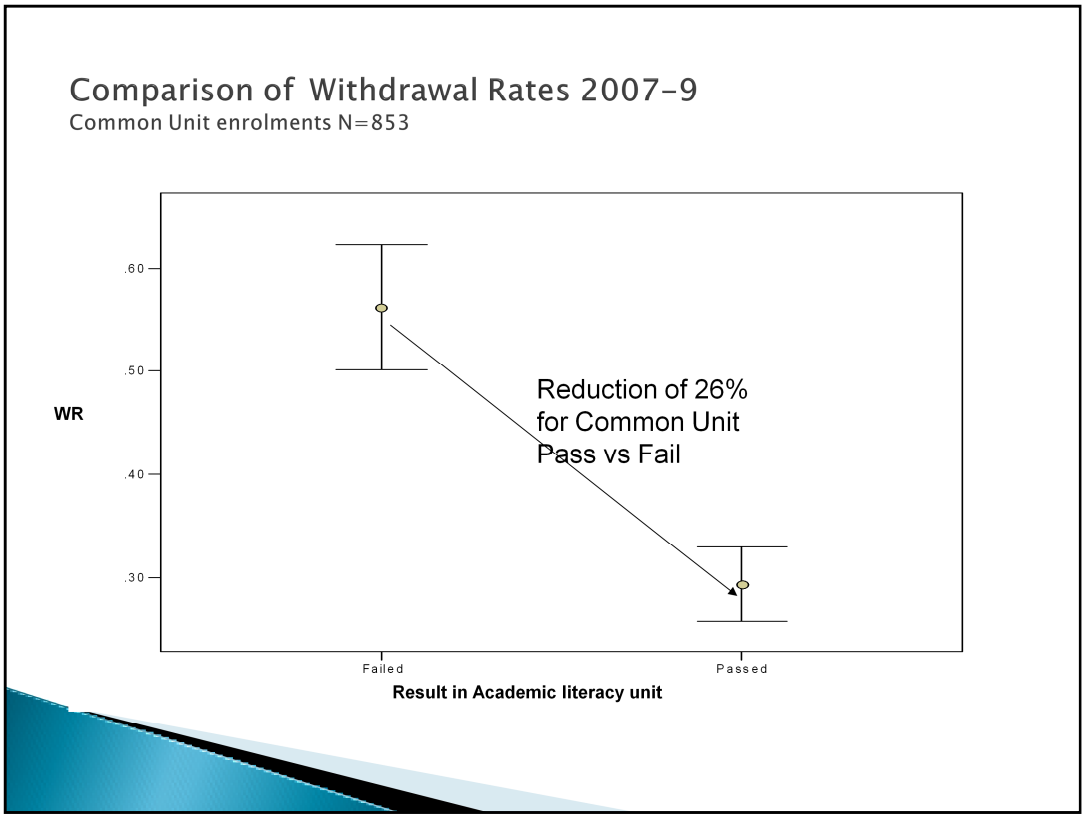
- VET, Fdn Studies, TEP /Non-VET BOA
- HE/non-commencing / Other BOA
- Professional qualification
- Mature age

(**Note**: Secondary school-leaver entry not offered CT option)

Literacy Assessment Bias: "high literacy/low-literacy Bias" of Course/

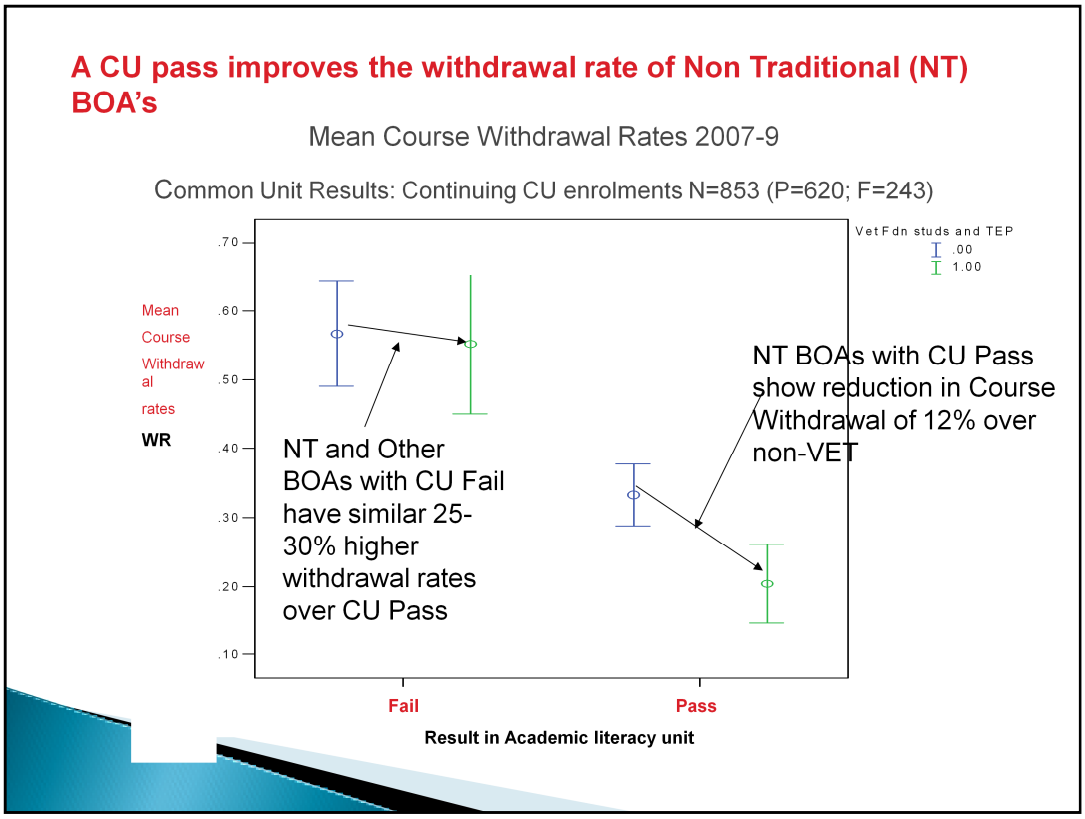
- **Other Low lit.** scored as 1 for bachelor courses: . Design, Engineering, Inform Technology, Inform Technology/ B. Engin., . Music, Visual Design.
- **High lit.** – all other courses – scored "0"

The results for comparison groups were filtered for the variables of BOA and literacy assessment bias to see if these had any effect on how beneficial the CU's were.



SH – you mentioned that cause and effect are confounded, I wondered intuitively if you would expect the graph to look like that – better students will get passes and therefore are less likely to withdraw. How then is this not just a simple mapping of effect?

Bill – you are right, we do have to look at the gradient of effect.



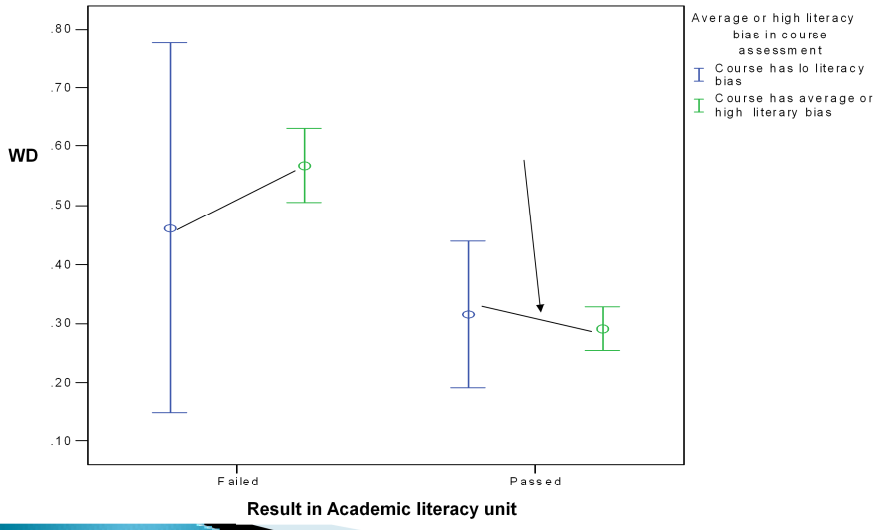
What is the program dividend overall? Over the period 2005-2009 35% word. All of those who have enrolled in the common units they have a slightly higher withdrawal rate, those that received the CT's (24%) have a lower withdrawal rate (16% gap). But you have to look at the effect of those that need it rather than those that don't.

SH - So how do we know we are not just looking at cause and effect again. Are you satisfied that what we are looking at there shows that the common units are the cause of the reduced attrition?

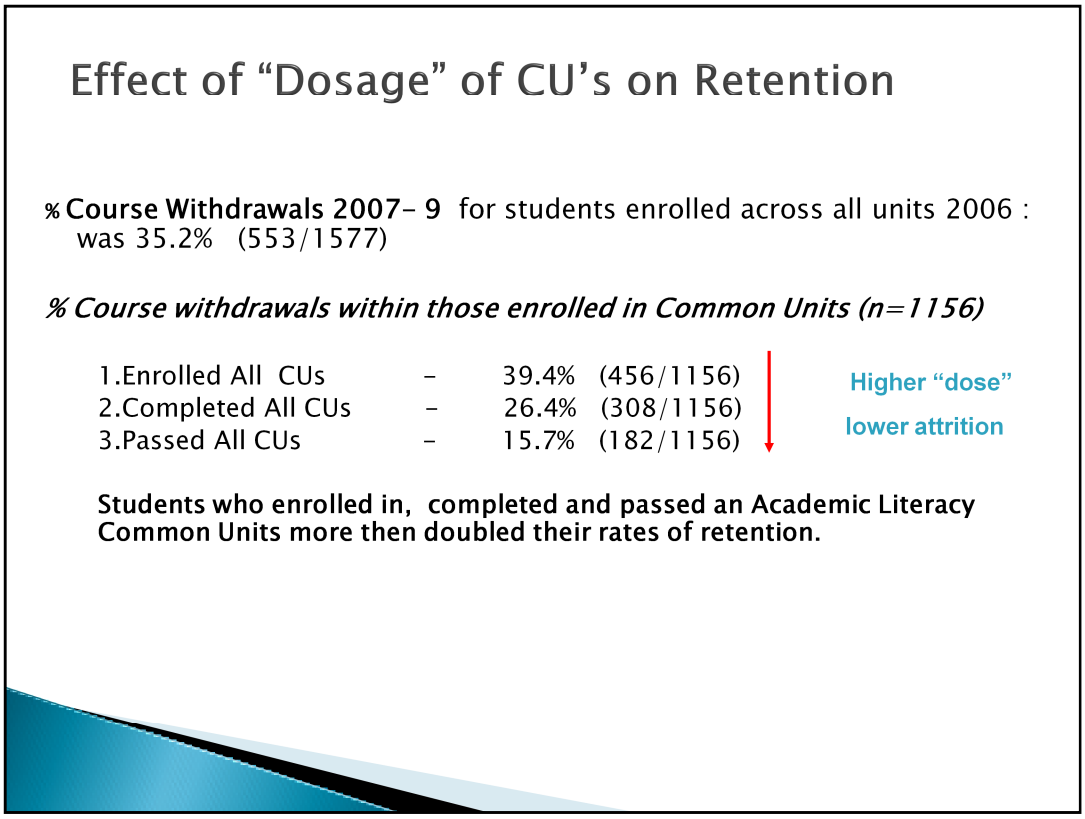
BT - There is definitely a dividend there of approx 24%.

What we have evidence for is some program dividend for an increasing dosage effect which is some 1.5 times greater than?? What we are not trying to say is that we can control for all of those background variables . In order to get that we would need to know if the same effects are constant. We have retention rates directly related to the dosage, approximately double the pass rates for those who have gone through.

Mean course withdrawal rate declines by passing a common unit regardless of literacy bias of the parent course



While there was no significant effect for Literacy bias, those who passed CU's CU Passes have 15-20% lower withdrawal rate then those who didn't.



The percentage of withdrawals from course between 2007-2009 was 35.2%, however of those who completed common units the withdrawal rate was 26.4% and for those who completed and passed the rate was 15.7%.

(NB because common unit assessment is principally formative if a students attends all classes and completes all assessments they have a high probability of passing. Those who fail are likely to include a high number of non completers.)

NR – the other aspect of the study is the qualitative and so as much as it is very hard to isolate this pattern as being an effect of common units in a quantitative way, we attempted to correlate this pattern with what the students' comments told us about how effective they thought the common units were in helping them succeed. We will look at these comments in the next section.

Findings

1. Statistically significant increases in retention for
   (a) CU Completed vs CU Withdrew
   (b) CU Pass WD and Pass vs CU Fail
   (All CU 2006 enrolments 2007-9).

2. Retention rates were directly related to "Dosage" or level of CU completion/ success.

3. "Raw" comparison of all Common Unit enrolments vs Credit Transfers not appropriate because of difficulty controlling for student background effect.

   Further qualitative measurements and student survey will help to isolate an effect

Findings so far ….

Quantitative issues for further investigation

1. More sophisticated modeling required for estimating all effects?
2. Should program exposure be widened to cover unidentified areas of need among the Credit Transfer groups?
3. Is the GPA a valid and reliable measure of student performance over the academic cycle?
4. What are the benefits of CU over CT among other equity groups – by NT residence, NESB, Indigenous?

More sophisticated modelling required for estimating all effects (participation, “dosage” , covariant or background effects, however, most effects likely to be quite small).

Student Perceptions: quantitative & qualitative

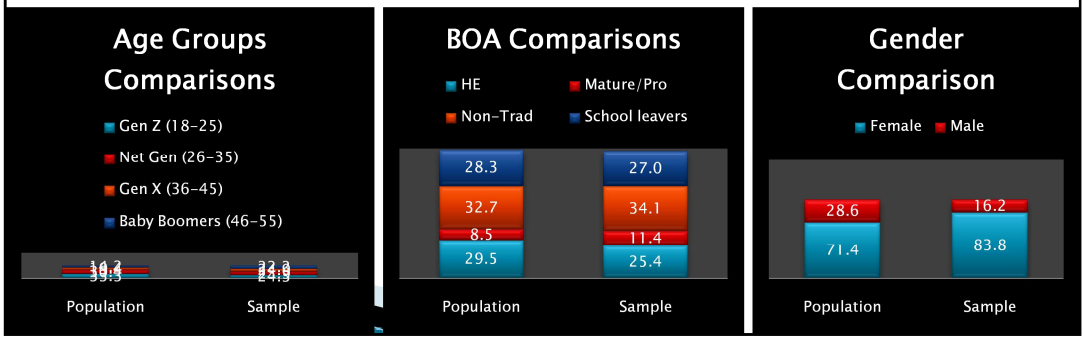
1. Survey (n=185 of 1200)
2. Analysis of SELT qualitative comments (2007)
3. Reasons for Withdrawal –via area 52
4. Comments from students – unsolicited and through learnline forums

Sharon: This section deals with our results from our investigation into student pereptions. We approached this through the following. Survey undertaken to gage students' perceptions of the common units and see if there were any differences across BOA and generations. In addition we noted that Gae Baldwin noted that there was overall a positive perception students in interviews as part of the review of the common units. We contacts 1200 students (from 1st, 2nd and 3rd year) via email and asked them to participate in an online survey. The respondents matched the population sample.

Today we will report on 1 and 2

Student Survey: Why and What

- To gauge students perceptions of the usefulness of the academic skills CU's across :
  - BOA
  - Generational groups
- To confirm Baldwin (2008) findings of overall positive perception of CU's
- Students in their 1st, 2nd and 3rd year of study
- Survey respondents matched pop. sample



•First part quantified the usefulness and the second part qualified it.

•15% response rate

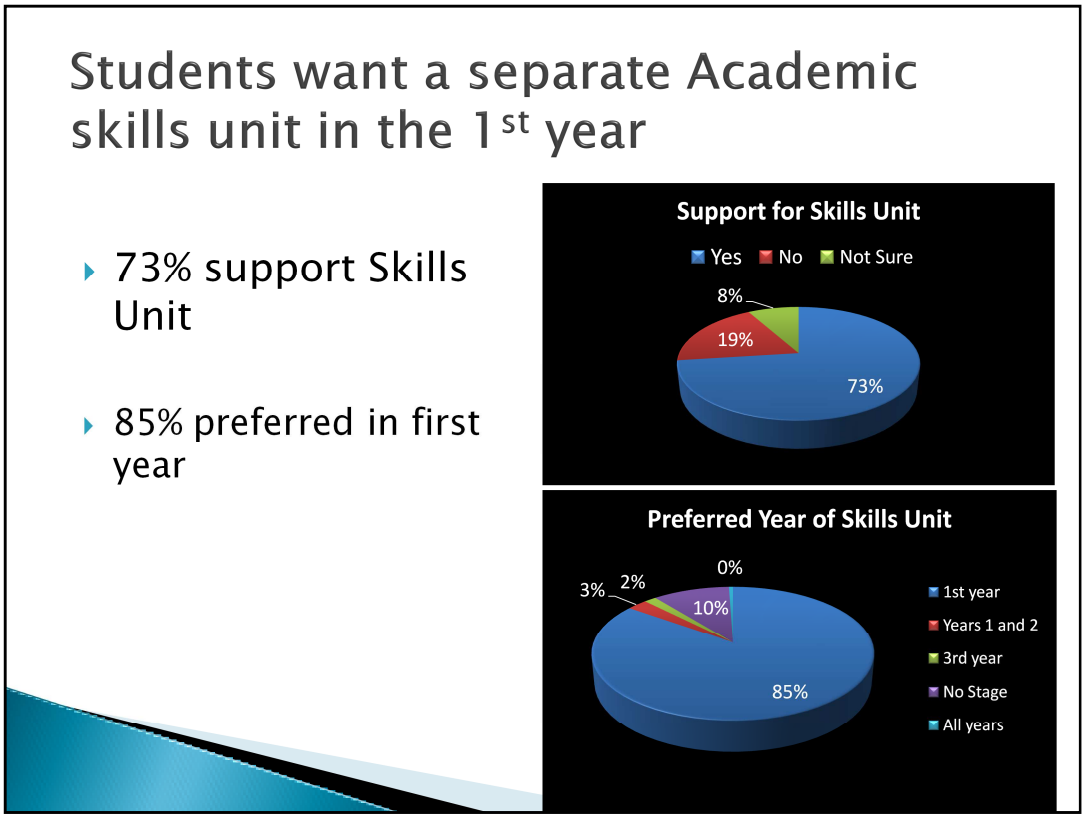
•Incentive to respond (cinema tickets/Ipod)

•Population and sample were well matched.

Key questions asked:

1. Is it a good idea to include separate units that teach academic skills?
2. At what stage (1st/2nd/3rd year) is the best time to study an academic skills unit?
3. How important are particular academic skills for success?
4. Which skills did you already have?

Martin re: Q2 – did you entertain the idea of including another variable, students prior to entry? Yes there was an option for other (stage)



Mal – we found that 73% of the students did support the idea of having an academic skills units and this held across those who had completed a CUC units and those who had not (about 70% for those who hadn't and 76% for those who had) What we can gather from this is that students think that it is a good idea to have separate units. In terms of the best time to do this, the overwhelming response was in the 1st year.

Does this support change across groups? Firstly, basis of admission, held constant – a little more variation across generational groups with the lowest being the Net gen cohort. For those who were 36 and upwards the support trends upwards.

This question was focusing on the particular skills students considered to be important. Looking at the skills overall 96% did see the value in teaching academic skills. The individual skills students considered to be the most important were: researching, referencing, reading, writing, critical thinking and computing. Those skills students considered to somewhat less important but still important were: group communication, oral presentations, and project management.

NR – an interesting point about that slide is that the majority of students who replied had completed CUC100 as opposed to CUC106 and the skills the students valued less are offered in CUC106 and there could therefore be a connection between students valuing something once they are exposed to it. So it is possible that if the student respondents had been exposed to those skills they might have valued them more.

Gary questions – for the first graph did you survey students after they had completed a particularly unit, or after several years of study?

NR – a mixture, some students had completed the academic skills common units and others and not and they were also a mix of 1st, 2nd and 3rd years.

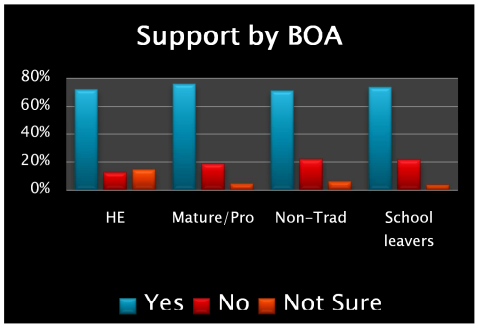
Mal – given the relatively small number in the sample we decided not to split the results up.

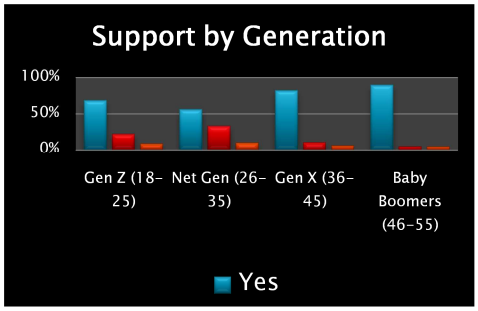
Gary – so is there relatively little exposure to oral presentation in the common units?

NR – there is a strong exposure in CUC106 and in CUC100 but in the latter unit it has

Support consistent across BOA and generational groups

- Consistently 70% support across all BOA's
- Support across generations but lower for Net gen.

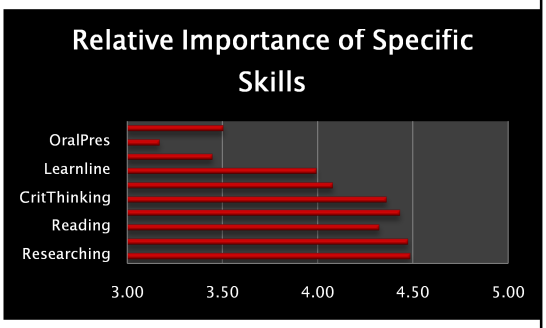


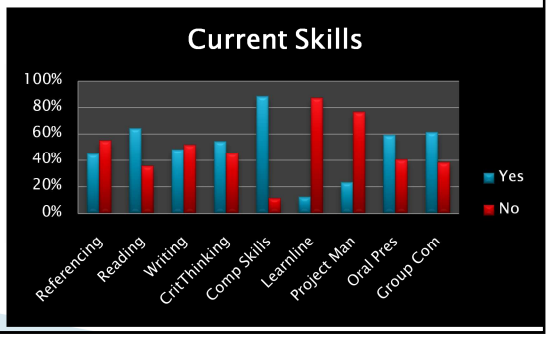


Although cohort is diverse, support for the inclusion of a skills unit is high. For example 73% of those surveyed reported they thought it was a good idea to a skills unit as part of their course and this level was particularly stable across BOA. While some variance in Gen categories, in all groups more than 56% agreed on the importance of the unit – more so in for those over 36years of age.

What Students Value

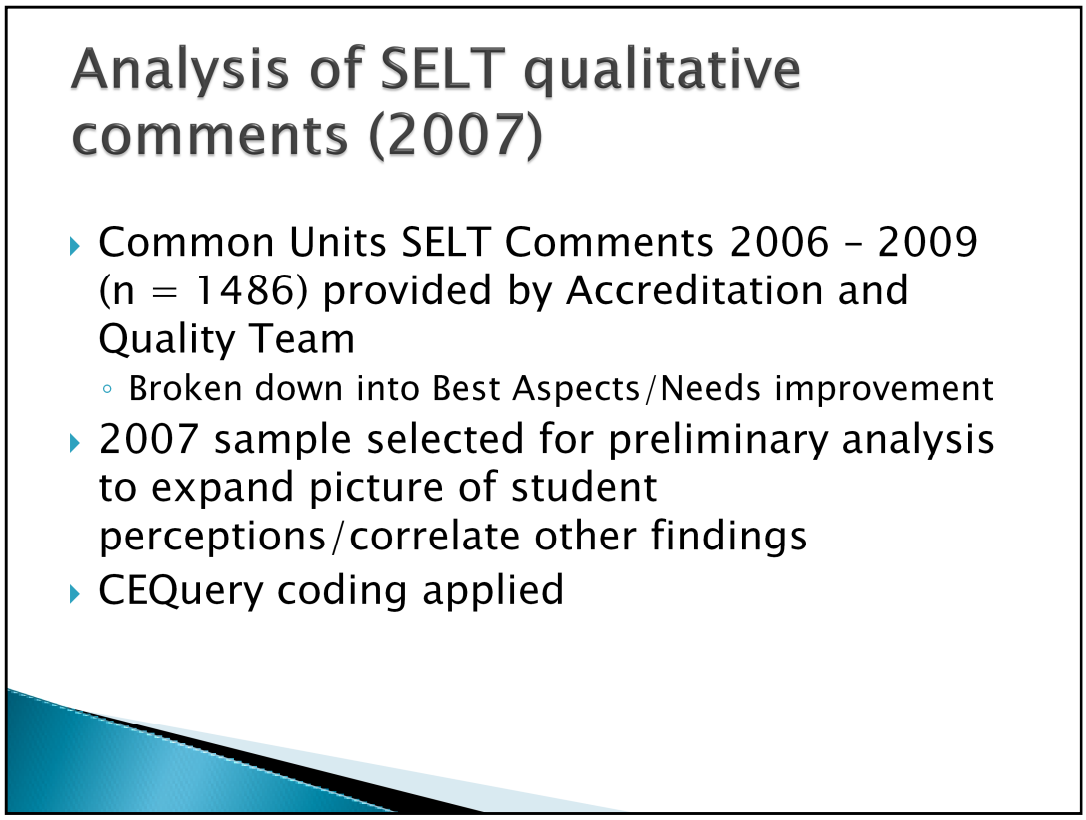
- 96% of students appreciated the value of teaching specific academic skills.
- Over 80% have general computer skills, over 80% do not have sufficient LL skills.





The second graph asks students to self assess those skills they came to university with. There is a relatively even split here with a couple of exceptions, most students reported that they had sufficient computer skills and most students felt they were lacking project management and learnline skills.

JoAnne pointed out regarding slide 25 that “researching” is missing from the second graph.



NR – final part of this section, was where we attempted to analyse the comments included in the SELT data, as you know students have the option to comment as well as complete the questionnaire. These comments are then grouped into two categories: Best aspect and Needs Improvement in relation to the unit. The team experimented with a way of analysing the comments in a useful way using 2007 data only at this stage. The data was categorised using the Course Experience Questionnaire domains and students view of the best and worst aspects of a literacy common unit (CUC100). The domains were outcomes (which covers a range of things but nominally these relate to the usefulness of the unit, staff, course design, assessment and support. For a large group of students the best aspect was the usefulness as well as the staff which reflects the survey. Course design was the area that needed improvement, rather than usefulness. When drilling down into student's reasons for focusing on course design the principal issues raised have already been addressed in the sense that many of the comments referred to the much of it was related to the way the skills were, to some extent, treated separately and in particular learning ICT skills and academic language skills.

CW – one thing we need to do is to look at data and remediate and see if there is an effect and so it will be very interesting to see this data across 2007-2009.

NR – what we have found is that this is relatively easy to process this data and that in fact this can be an ongoing

CW – there is an issue around the ratio of BAs to NIs and it would be interesting to establish whether this ratio has improved over time.

NR – now that we have introduced all of the common units into the wireless classrooms, which has enabled the integration of the various skills within the units it will also be interesting to pick up the 2010 data.

NR – In the subdomains within best aspect, which were intellectual, Knowledge and skills were 82% and we thought this was consistent with our survey.

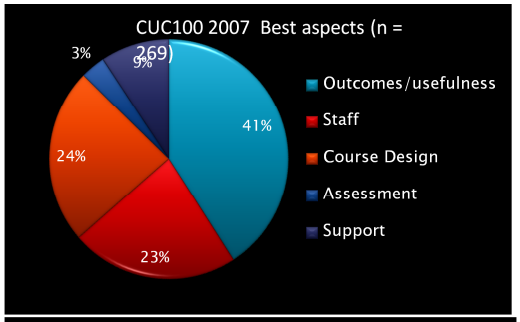
Students view of best and worst aspects literacy CU

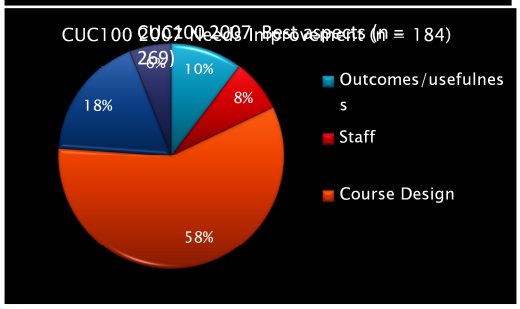
Usefulness and staff significant proportion of best aspect response

This reflects survey view

Course design significant proportion of needs improvement.

These issues of course design have been addressed subsequent to this 2007 data



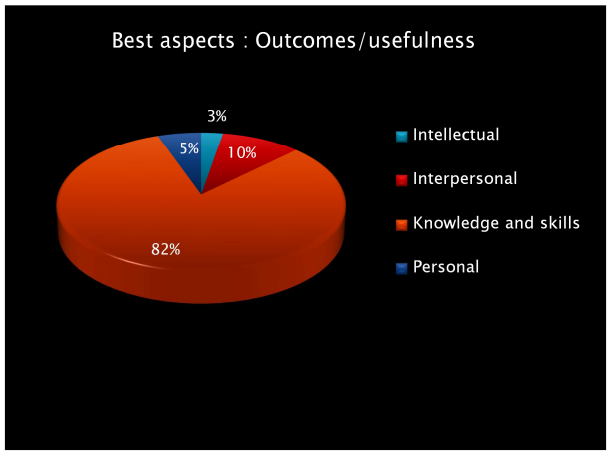


The usefulness of CU's and the staff rated highly as a best aspect of common units.

For needs improvement course design was the major area of concern, usefulness on the other hand was a concern expressed in only 8% of comments.

(NB pie chart percentages and criteria need to be reformatted)

Knowledge and skills gained are most important best aspect



Of the “best aspect” subdomains knowledge and skills rated the highest for importance with 82%

Conclusions and further considerations

- Completing and passing common units improves retention of all student groups
- Student perceptions confirm usefulness of common units
- More sophisticated modeling required for estimating all effects
- Increasing sample size for survey will help confirm perceptions
- Grad attributes project will provide additional useful measure of effectiveness.

Concluding comments from management group – recorded in formal minutes