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Monitoring risk and return: Critical insights into graduate coursework engagement and outcomes

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RESEARCH BRIEFING

Australasian Survey of Student Engagement

Volume 9 **April 2011**

Highlights

- Compared with undergraduate students, postgraduate coursework students record significantly more engagement in Academic Challenge, Work Integrated Learning and Higher Order Thinking
- There is notable variation in postgraduate students' engagement, especially when examined by field of education and qualification level
- Distance and external students, who comprise a sizeable group of postgraduate coursework students, have lower levels of engagement on all but one measure of engagement compared with campus-based students
- International students, also a large and important cohort of this group, have higher levels of engagement than their domestic classmates on most measures

Monitoring risk and return: Critical insights into graduate coursework engagement and outcomes

Tuning into postgraduate education

Coursework graduate courses have been a significant growth area over the last few decades and are of immense importance to Australian higher education. The knowledge and skills achieved through postgraduate study make a significant contribution to individuals and society. Nearly one quarter of all higher education students in Australia are enrolled in a coursework postgraduate degree. These students generate substantial income for institutions through the fees they pay. Nearly one third of all international students in Australian higher education are enrolled in postgraduate coursework degrees. Overall, international students make up around 50 per cent of all coursework masters enrolments, a third of all coursework doctorate enrolments, and 13 per cent of other coursework enrolments (DEEWR, 2010a; DEEWR 2010b).

It is reasonable to ask, therefore, why so little is known about coursework postgraduate education in Australasia. Indeed, this question has been framed specifically by the Australian Universities Quality Agency (AUQA, 2009), a recent review of international education (Baird, 2010) and the Council of Postgraduate Associations (Palmer, 2010). Particular concerns surround the:

Graduate coursework engagement

- lack of robust information about coursework students and provision;
- academic, careers, teaching and individual support offered to postgraduate cohorts;
- integration of international learners, and their interactions with institutions and domestic students;
- quality and conditions of offerings, particularly in light of very rapid expansion over the last decade;
- students' patterns of campus use and the increasing number of external students; and
- financial and quality risks associated, particularly concerning international provision.

As such, securing timely and relevant insights into postgraduate coursework education is of enormous importance. To that end, this briefing paper highlights a number of key findings from the 2010 Postgraduate Survey of Student Engagement (POSSE).

Piloted in 2009 and implemented in 2010, the POSSE is a unique resource for examining the engagement and outcomes of coursework postgraduates. With close ties to the Australasian Survey of Student Engagement (AUSSE – see Appendix 1 for background information) the POSSE is the primary source of cross-institutional information on students' engagement in coursework postgraduate study within Australasia. The POSSE focuses on students enrolled in masters and graduate diplomas, although the collection does include students in other coursework graduate degrees. Information is collected from students in the first year and later year (typically, the final year) of their postgraduate study.

Fifteen higher education providers in Australia and New Zealand took part in the 2010 POSSE. A census of all onshore students enrolled in coursework postgraduate study was conducted at each institution, combining to form a cross-institutional total of 47,614. A total of 10,014 responses were received – a response yield of 21 per cent, just above the designed rate of 20 per cent. Response rates vary from 7.9 per cent to 33.5 per cent between institutions. Post-stratification weights are applied to ensure that results represent the target population on key characteristics.

This briefing examines big-picture results from the 2010 POSSE. It provides a summary of the main engagement and outcomes scales in the instrument and delivers results at the Australasian level. The intention of this report is to increase awareness of this collection, highlight some key findings from 2010 and encourage the future use of the data for institutional and national planning and improvement activities.

Insights into postgraduate student characteristics

Details of the 10,014 POSSE 2010 respondents are shown in Table 1. These figures are displayed for students in Australian and for New Zealand institutions separately, in addition to the total Australasian yield count and distribution. As can be seen, a good sample of both first year and later year students is included in the data and overall the majority of respondents to the POSSE in 2010 were enrolled in masters by coursework degrees, although when examining the individual country statistics, the majority of respondents from New Zealand were graduate diploma students. This is also reflected in the proportions of students enrolled in different qualification levels, with the greatest number students studying a coursework postgraduate qualification in Australia enrolled in a masters qualification (DEEWR, 2010a), and around two thirds of students in New Zealand undertaking a postgraduate qualification enrolled in graduate or postgraduate certificate or diploma level or honours study (TEC, 2010).

As shown in Table 1, a small proportion of students surveyed were enrolled in research qualifications rather than coursework postgraduate study. These students were noted as being postgraduate coursework students in the population lists provided by participating universities, however in completing the questionnaire indicated that they were enrolled in research qualifications. These students' responses are included in the following analyses.

This briefing focuses mainly on data from Australian and New Zealand postgraduate students sourced from the 2010 POSSE, drawing occasionally from 2009 POSSE pilot, and 2010 undergraduate collection. Even though the POSSE involves surveying a random sample of students at most institutions (a few deploy the instrument as a census), confidence bands are not reported in this briefing due to the large sample size. Given the standard deviation of most AUSSE items and scales, differences of five score points or more are treated as reflecting an educationally meaningful effect.

These statistics offer new insights into postgraduate students. For instance, the POSSE provides new information relating to the extent to which this group of students are conducting their study through online platforms rather than face-to-face. As shown in Table

1, about 30 per cent of all coursework postgraduates in Australia and New Zealand conduct 'all' or 'nearly all' their study online. Only about one in five of these students are enrolled in courses where all classes and study is conducted face-to-face.

International students are a notable component of the postgraduate coursework cohort, making up more than 30 per cent of respondents from across the two countries. In particular, within Australia the international student group is substantial, comprising more than one third of all POSSE respondents. This represents a large

sample and an important source of information about the international student group in Australian higher education providers.

Also of particular interest given the recent performance funding debates occurring in Australia is the fact that on current measures, more than half of the postgraduate coursework group are from high socioeconomic (SES) areas. Fewer than one in ten of these students (7.3%) are classified as low SES under current measures. Equity issues at this level need further investigation as this initial analyses suggests.

Table 1: 2010 POSSE respondent characteristics

| Subgroup | | Australia | | New Zealand | | POSSE total | |
|--|----------------------------------|-----------|----------|-------------|----------|-------------|----------|
| | | Count | Per cent | Count | Per cent | Count | Per cent |
| Year level | First year | 4,895 | 58.7 | 1,106 | 66.2 | 6,001 | 59.9 |
| | Later year | 3,449 | 41.3 | 564 | 33.8 | 4,013 | 40.1 |
| Qualification | Graduate certificate | 480 | 6.3 | 92 | 5.9 | 572 | 6.2 |
| | Graduate or postgraduate diploma | 1,172 | 15.4 | 914 | 58.1 | 2,086 | 22.8 |
| | Masters degree by coursework | 5,680 | 74.8 | 316 | 20.1 | 5,996 | 65.4 |
| | Masters degree by research | 152 | 2 | 236 | 15 | 388 | 4.2 |
| | Doctorate by coursework | 70 | 0.9 | 1 | 0.1 | 71 | 0.8 |
| | Doctorate by research | 37 | 0.5 | 13 | 0.8 | 50 | 0.5 |
| Fee type | International fees | 2,570 | 34.7 | 134 | 8.8 | 2,704 | 30.3 |
| | Domestic fee-paying | 1,772 | 23.9 | 621 | 40.6 | 2,393 | 26.8 |
| | Government funded | 3,060 | 41.3 | 774 | 50.6 | 3,834 | 42.9 |
| Proportion of study online | None | 1,585 | 21.2 | 377 | 24.4 | 1,962 | 21.7 |
| | About a quarter | 1,972 | 25.6 | 480 | 31 | 2,397 | 26.6 |
| | About half | 1,674 | 22.4 | 342 | 22.1 | 2,016 | 22.3 |
| | All or nearly all | 2,305 | 30.8 | 347 | 22.4 | 2,652 | 29.4 |
| Location of study | Campus-based | 4,737 | 62.7 | 1,046 | 66.9 | 5,783 | 63.5 |
| | External/distance | 2,814 | 37.3 | 517 | 33.1 | 3,331 | 36.5 |
| Attendance type | Part-time | 3,689 | 49 | 795 | 50.8 | 4,484 | 49.3 |
| | Full-time | 3,845 | 51 | 771 | 49.2 | 4,616 | 50.7 |
| Broad field of study | Sciences | 162 | 2.2 | 136 | 8.7 | 298 | 3.3 |
| | IT | 311 | 4.2 | 31 | 2 | 342 | 3.8 |
| | Engineering | 261 | 3.5 | 50 | 3.2 | 311 | 3.4 |
| | Architecture | 169 | 2.3 | 27 | 1.7 | 196 | 2.2 |
| | Agriculture | 121 | 1.6 | 23 | 1.5 | 144 | 1.6 |
| | Health | 860 | 11.5 | 242 | 15.5 | 1,102 | 12.2 |
| | Education | 896 | 12 | 438 | 28.1 | 1,334 | 14.8 |
| | Business | 2,712 | 36.4 | 310 | 19.9 | 3,022 | 33.5 |
| | Humanities | 1,660 | 22.3 | 279 | 17.9 | 1,939 | 21.5 |
| Sex | Male | 2,984 | 39.4 | 565 | 36.1 | 3,549 | 38.8 |
| | Female | 4,589 | 60.6 | 1,001 | 63.9 | 5,590 | 61.2 |
| Age | 22 and under | 865 | 11.7 | 237 | 15.5 | 1,102 | 12.4 |
| | 23 to 30 | 3,254 | 44.2 | 426 | 27.8 | 3,680 | 41.3 |
| | 31 to 40 | 1,705 | 23.1 | 345 | 22.5 | 2,050 | 23 |
| | 40 and above | 1,545 | 21 | 523 | 34.2 | 2,068 | 23.2 |
| Permanent resident or citizen of Australia | International student | 2,604 | 34.6 | 136 | 8.7 | 2,740 | 30.2 |
| | Domestic student | 4,919 | 65.4 | 1,419 | 91.3 | 6,338 | 69.8 |
| Socioeconomic status (Australia only) | Low SES | 478 | 7.3 | | | 478 | 7.3 |
| | Middle SES | 2,402 | 36.9 | | | 2,403 | 36.9 |
| | High SES | 3,630 | 55.8 | | | 3,630 | 55.8 |
| Total | | 8,344 | 100 | 1,670 | 100 | 10,014 | 100 |

Graduate coursework engagement

The POSSE provides telling information on the extent to which postgraduate students spend their study-related time. As Figure 1 shows, about three quarters of these students spend fewer than five hours per week commuting to and from study. Over 30 per cent of this cohort spends no additional time on campus outside of class. This compares with only nine per

cent of undergraduate students who spend no time on campus aside from class. At the other extreme, a small proportion (5%) spends more than 30 hours per week on campus. A somewhat higher proportion of undergraduate students (9%) spend this amount of time on campus in a typical week.

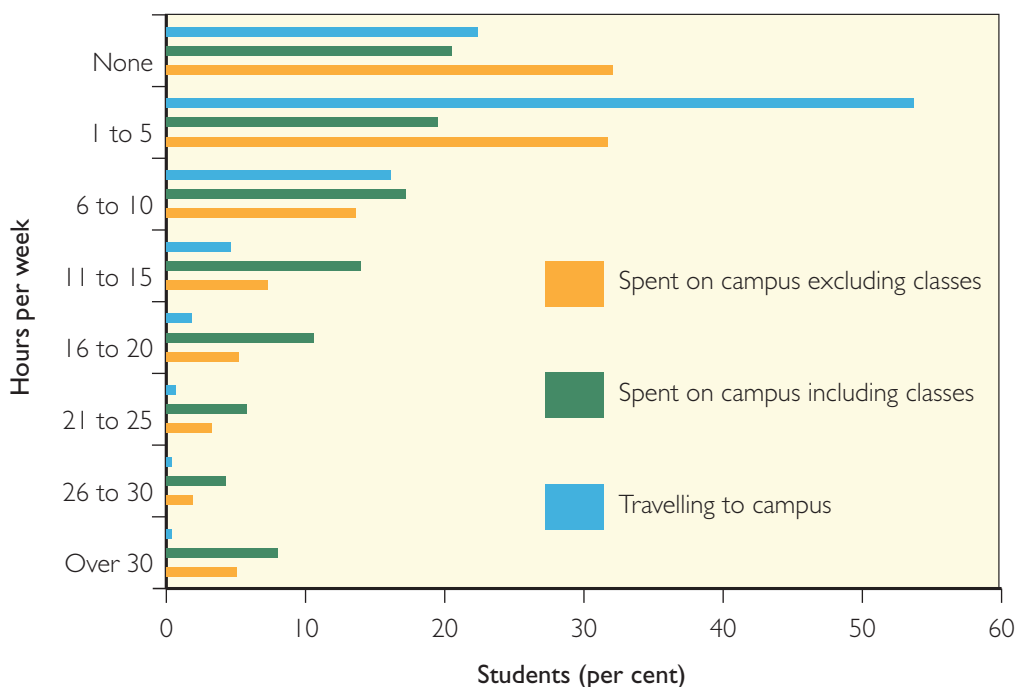


Figure 1 Time spent on and travelling to campus Overall 78 per cent of all postgraduates are employed during their study.

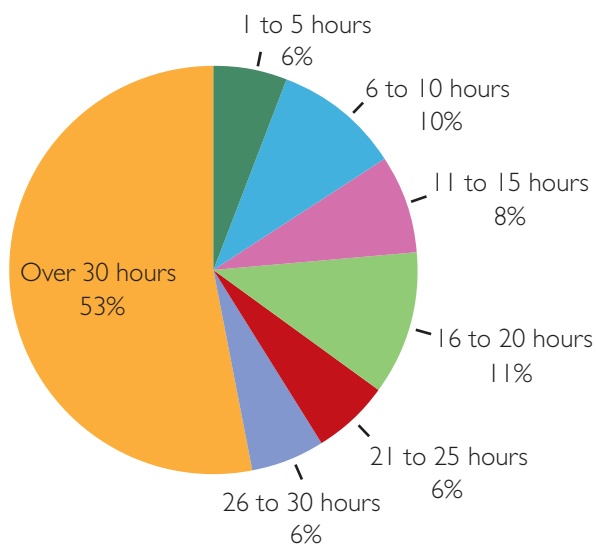


Figure 2 Hours spent in paid work (employed students only)

Figure 2 shows a distribution of the hours per week spent in paid employment. The majority of those employed are working more than 30 hours per week, suggesting that many postgraduate coursework students are undertaking full-time work while studying. More detailed analysis shows that while students enrolled part time tend to work longer hours, there a notable minority (about six per cent) who study full time and are employed more than 30 hours per week.

Monitoring students' engagement

The Postgraduate Student Engagement Questionnaire (PSEQ) is completed by students participating in the POSSE. The PSEQ contains items which measure around 100 specific aspects of engagement. These items are linked to form six engagement scales, detailed in Table 2.

Table 2: POSSE engagement scales

| Scale | Description |
|-----------------------------------|--|
| Academic Challenge | Extent to which expectations and assessments challenge students to learn |
| Active Learning | Students' efforts to actively construct their knowledge |
| Student and Staff Interactions | Level and nature of students' contact with teaching staff |
| Enriching Educational Experiences | Participation in broadening educational activities |
| Supportive Learning Environment | Feelings of legitimization within the university community |
| Work Integrated Learning | Integration of employment-focused work experiences into study |

Key 2010 POSSE results are provided in the following section. These are based on average scale scores, which are reported on a metric ranging from 0 to 100. The higher the score, the higher the levels of engagement recorded.

The average scale scores across the six engagement scales are shown in Figure 3. The outcomes for both first-year and later-year postgraduates are displayed. These outcomes show varying levels of engagement across the six measures, with the Work Integrated Learning, Supportive Learning Environment and Academic Challenge scales recording the highest scores.

As the results show, there are no notable differences in engagement levels between the first and later year cohorts of postgraduate students. This suggests that engagement levels remain relatively stable throughout most students' postgraduate degrees, but may also be a product of the fact that many postgraduate courses are of relatively short duration. Looking at the differences in engagement by the number of years of the qualification that a student has completed also suggests that students' engagement remains quite stable among students at different points of their postgraduate coursework qualification, however among those students who have been enrolled for more than three years, engagement levels seem to be somewhat lower than for students who have been enrolled for less time.

Broadly, these outcomes reflect similar patterns to those apparent in the undergraduate version of this survey, the AUSSE. Postgraduate students tend to indicate higher levels of engagement for the Academic Challenge and the Work Integrated Learning scales compared with undergraduate students, but otherwise record similar levels of engagement. This is further discussed later in this report.

Given that the highest possible engagement score is 100 for each of the scales, there is clear room for improving the engagement of postgraduate students in Australia and New Zealand. Cross-national comparisons of undergraduate students undertaken using AUSSE and NSSE results show that engagement levels in Australasia tend to be lower than in North America (Coates, 2008, 2009; Radloff & Coates, 2010). While comparison data at the postgraduate level is not available, analysis of the POSSE results in relation to later year undergraduate North American students suggests that this pattern may also be true at the postgraduate level.

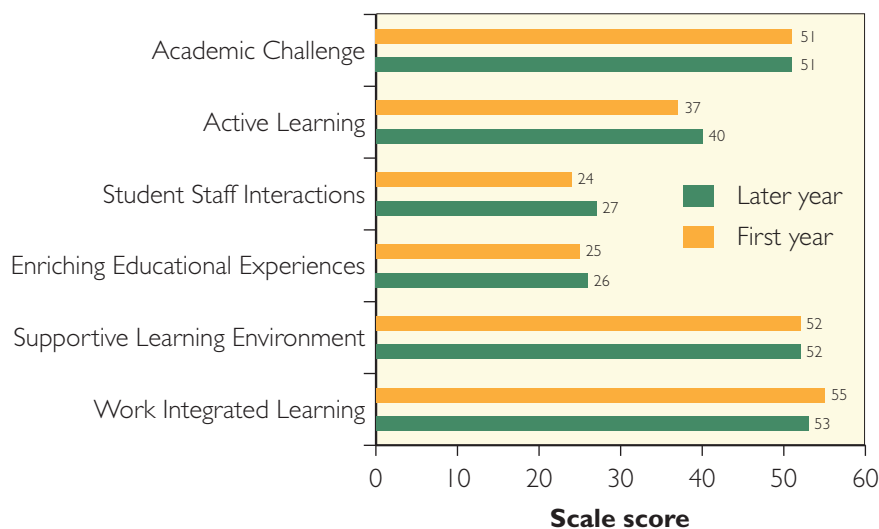


Figure 3 Average engagement scale scores by year of study

Graduate coursework engagement

Examining students' outcomes

The POSSE measures selected educational outcomes. As with the engagement items, discrete outcomes are grouped together to form seven aggregate scales (see Table 3).

Table 3: POSSE outcome measures

| Scale | Description |
|------------------------------|---|
| Higher Order Thinking | Participation in higher-order forms of thinking |
| General Learning Outcomes | Development of general competencies |
| General Development Outcomes | Development of general forms of individual and social development |
| Career Readiness | Preparation for participation in the professional workforce |
| Average Overall Grade | Average overall grade so far in course |
| Departure Intention | Non-graduating students' intentions on not returning to study in the following year |
| Overall Satisfaction | Students' overall satisfaction with their educational experience |

As with the engagement scales, these outcomes are reported on a metric ranging from 0 to 100. Figure 4 displays the 2010 average scores for first-year and later-year postgraduate students. Higher Order Thinking and Average Overall Grade are relatively high among this cohort of students. The experience of Higher Order Thinking in particular is important. The postgraduate

scores on this scale are higher than those recorded by undergraduate students (in the AUSSE), which is what would be expected given that the postgraduate study demands greater intellectual rigour from students. Scores among the postgraduate group also appear relatively good for General Learning Outcomes and Overall Satisfaction.

In contrast, lower scores for General Development Outcomes and the Career Readiness paint a less positive picture of the experiences, expectations and outcomes of Australasian postgraduate students in these areas. The Departure Intentions scale scores are relatively low, but in this case this suggests that few postgraduate students intend leaving their course before completion – a positive finding.

The only notable difference between first and later year students in these outcomes scales is for Departure Intention. The outcomes for later-year students are much higher than for the first year group. To clarify, this is not because later-year students are expecting to graduate (and therefore leave their institution) as departure due to graduation is not counted towards this score. Therefore, the POSSE has recorded extra disenchantment among later-year students, to the extent that students have considered withdrawing before graduation. While the average score for this group is still relatively low, the finding here does suggest that some additional attention to supporting these students through the final stages of their degree may be worthwhile for institutions to consider.

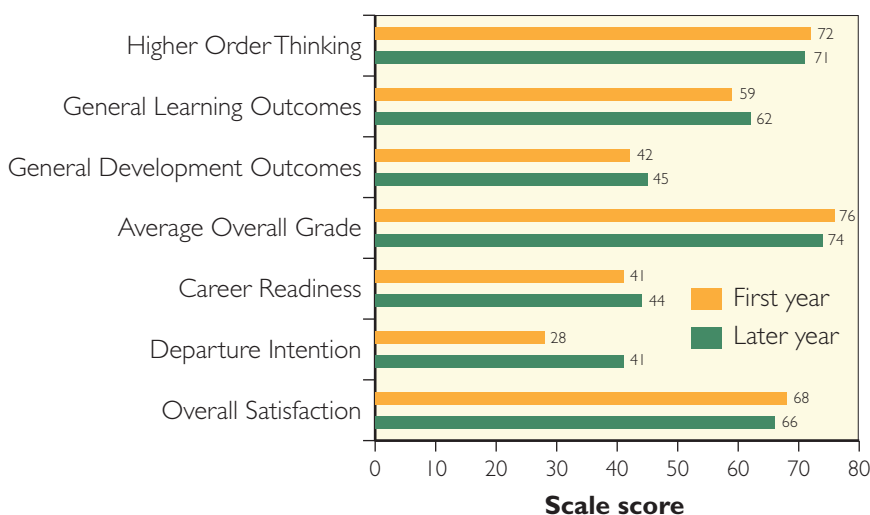


Figure 4 Average outcome scores by year of study

The Average Overall Grade scores are interesting, as they offer one of the only generalisable glimpses into the academic achievement of postgraduate coursework students in Australia. The lack of common standards, marking rubrics or reporting metrics makes generalisation problematic, and limitations associated with the percentage grades measured by the PSEQ need to be stressed. The results do provide enormously useful insights, however, which at the very least can act as a prompt for further exploration.

Figure 5, for instance, shows that there is variation in reported grades among the main fields of education as well as between the year levels within each field. The average grades reported among postgraduates ranged from 79 among first year education students to 72 among later year business students.

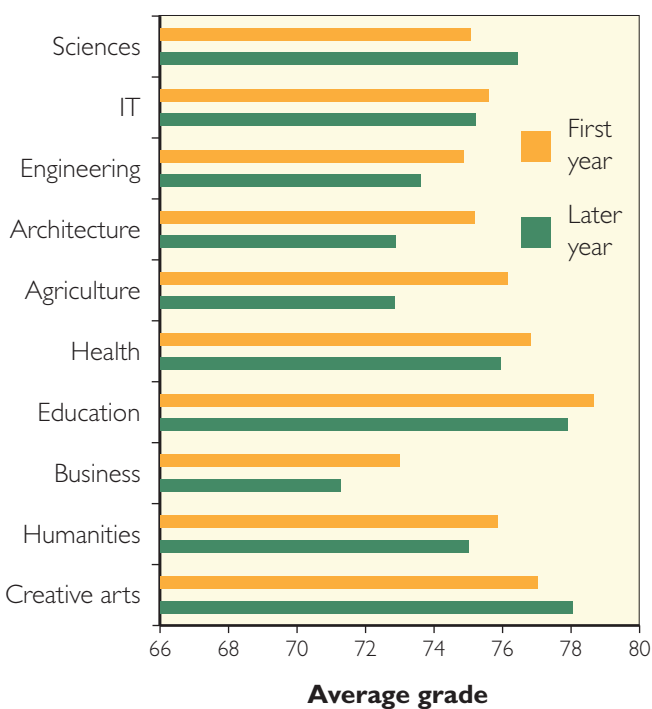


Figure 5 Average Overall Grade scores by field of education and year level

As Figure 5 shows, business students in the later year of their degree are reporting the lowest average outcomes among all the groups examined. Examining this group in more detail, it is possible to see that there is notable variation in outcomes by some key characteristics. Figure 6 shows the variation of average scores for the later year business student group on a number of demographic and enrolment characteristics. While there is little difference when examining grades of these students by sex, larger gaps are apparent between the part time and full time cohorts (with part time students reporting grades at an average of five points higher), government funded and other students (with government funded reporting grades 3.3 higher) and most dramatically, between English and non-English speaking background students, where the gap in favour

of native English speakers is seven points.

While the self-reported nature of this item in the POSSE does mean that caution needs to be taken in such analyses, the differences displayed here do reveal likely real differences in outcomes of students in the postgraduate levels. Further detailed analyses of responses across all year levels in future work with the POSSE could provide further important insights. This is especially important given findings from other work with the AUSSE indicating a strong correlation between low grades and intentions of students to leave their course before completion (Coates, 2011).

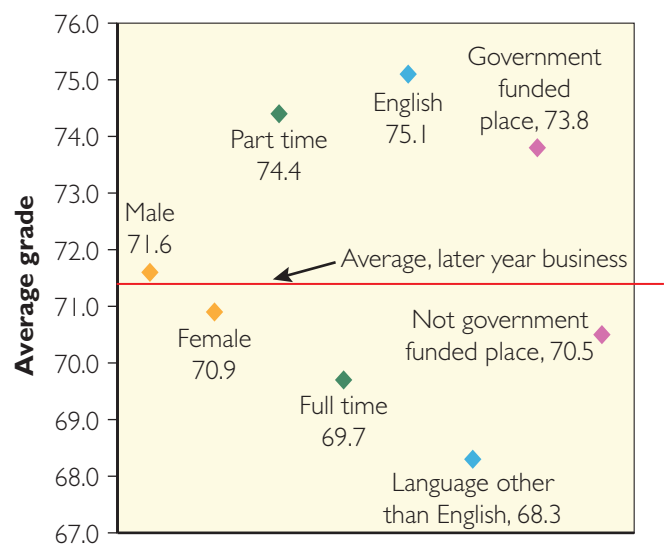


Figure 6 Average Overall Grade for later year Business students, by selected characteristics

Novels insights into issues of importance

Change and stability over years

Comparison of the average scores for facets of engagement and outcomes between 2009 and 2010 POSSE respondents shows that even though there has been a large growth in the number of universities and students participating in 2010, responses have been relatively consistent over the first two years of administration (Figure 7). This stability points to the technical and operational rigour of the survey approach, and affirms that the time series will become of greater interest over coming years. Examining responses to engagement and outcome measures over time will allow an understanding of the impact of policy changes at both the national and university level.

Graduate coursework engagement

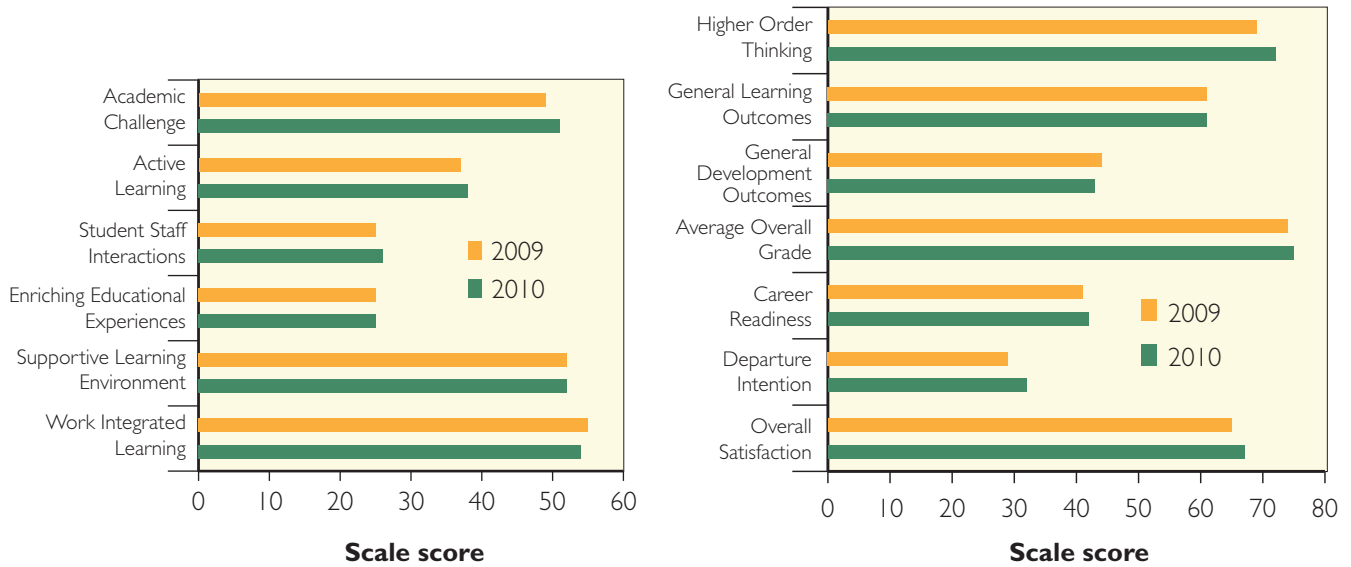


Figure 7 Average engagement and outcome scores by survey year

Qualification differences

Postgraduate coursework study encompasses a range of different qualifications with differing requirements, a range of timeframes, and a diversity of intended academic and professional outcomes. It is interesting to examine any variations in POSSE results across the range of qualifications in which respondents are enrolled. Overall, the majority of respondents to the POSSE were studying masters by coursework courses (65 per cent), a further 24 per cent were enrolled in graduate or postgraduate diplomas, six per cent were graduate certificate students, three per cent enrolled in what students identified as postgraduate research qualifications. It is worth noting that the standard error for some of these qualifications is relatively large and as such, caution in the interpretation of these results is urged.

Among the outcomes scales, there is some variation in the Higher Order Thinking scale where the doctorate by coursework students showed high outcomes compared with others, but less variation within the other scales in this group.

The engagement scales are the focus of this comparison due to the variation in responses across the qualifications. Figure 8 shows a number of interesting variations within the postgraduate qualifications are present in the 2010 responses. Variation is noticeable on all scales. Of particular interest is the pattern of Academic Challenge scale, which grows as the level of degree increases, with the graduate certificate students having substantially lower average score than the doctorate by coursework group. A similarly interesting pattern in this regard is shown in the Active Learning Scale.

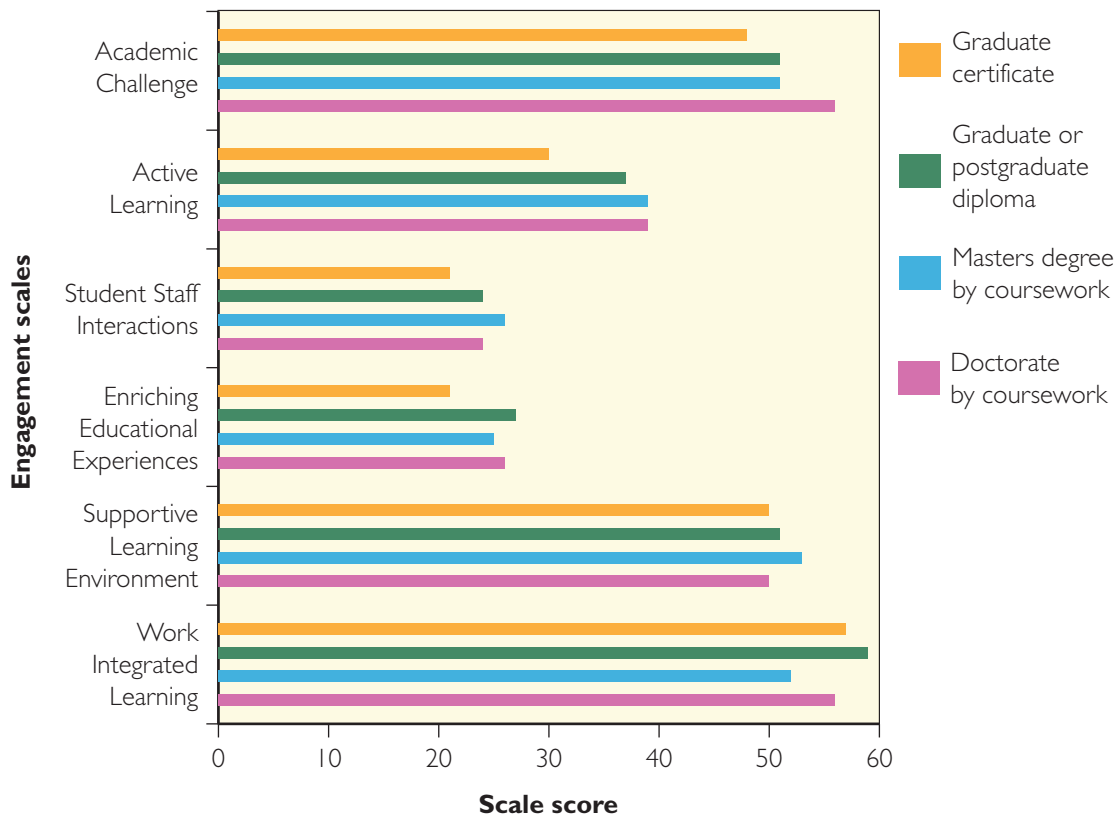


Figure 8 Average engagement scores by qualification

Differences across fields

Notable variations in engagement, outcomes and experiences are recorded across the broad fields of education. The engagement and outcomes scales with the most substantial variation by field of education in 2010 are displayed in Figure 9 to help emphasise some of the differences apparent between fields in both engagement and outcome measures. Examining results at these slightly more detailed levels helps to highlight the differences in experiences across the postgraduate student group and provides an avenue for further targeting of programs to increase levels of engagement and develop improved outcomes among these students.

Of the engagement scales, the largest cross-field variation is in the Active Learning and the Work Integrated Learning scales. On measures of engagement through Active Learning, students in the architecture field stand out as more engaged than students from other disciplines. Business, creative arts, and IT students also appear to have relatively high levels of engagement in Active Learning activities. Postgraduate health students recorded notably lower scores on this scale than those from all other disciplines.

Health students in postgraduate levels fared far more positively on levels of engagement through Work Integrated Learning, with these students, and those from the field of education recording substantially higher scores on this scale than those from all other fields. It appears that health and education curricula achieve significant levels of success in ensuring that the

students gain exposure to professional environments. At the other end of the spectrum science and information technology students recorded the lowest levels on the Work Integrated Learning engagement scale.

Three outcomes indicators in which notable variations are apparent in the 2010 POSSE results are Higher Order Thinking, Departure Intention and Overall Satisfaction. Average scale scores for the postgraduate students in information technology are notably lower than most other fields on measures of Higher Order Thinking and on Overall Satisfaction. In addition, the Departure Intention scores of students from this field are among the highest. This suggests that there is some room for improvement in the ways in which universities engage postgraduate students in the field of IT.

In the Higher Order Thinking scale, humanities students record the highest outcomes, with education and agriculture students close behind. For Overall Satisfaction, postgraduates studying agriculture-related courses are the most positive about their degrees. Other fields with high scores in this regard include humanities, education, the sciences, health and creative arts.

Departure intentions are shown to be particularly high for architecture students. Coupled with relatively low satisfaction for postgraduates in this field, these results suggest that, similarly to information technology students, further efforts to engage and encourage these students might improve their university experiences.

Graduate coursework engagement

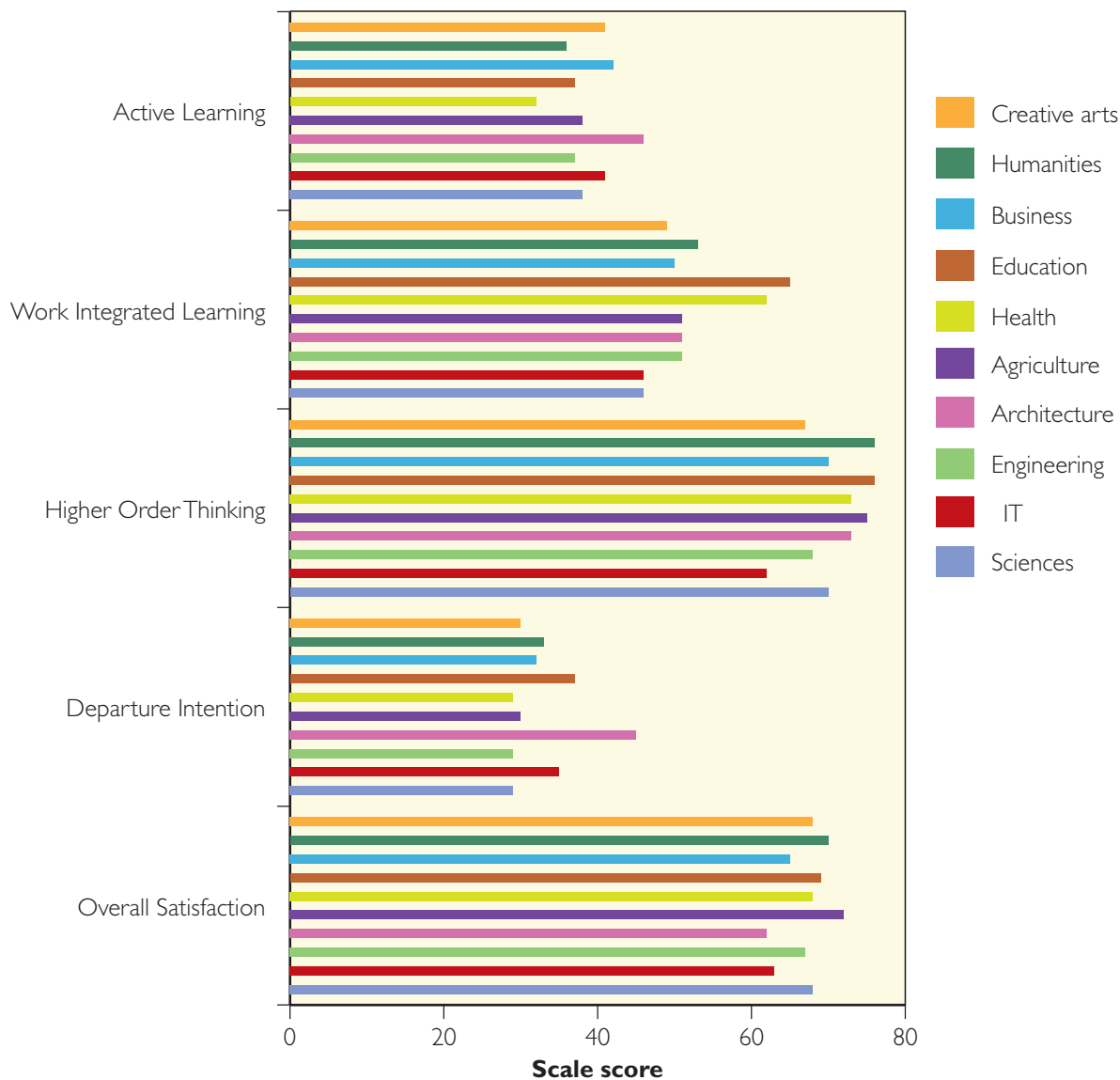


Figure 9 Average scores for selected scales by field of education

External and campus-based postgraduates

An interesting dynamic within the postgraduate coursework group relates to the differences in engagement with university studies between those who are based at the physical campus of the university and the significant minority of those who are external or distance students. As shown earlier in Table 1, more than one third of all POSSE respondents classified themselves in this latter category.

The results for these two groups on the six engagement scales provide interesting findings. In general, these outcomes are as might be expected, but the fact that they are quantified here is important. Large differences can be seen between campus-based and the external

students in terms of Active Learning, with those on campus much more engaged in tasks such as group work and in-class discussions than those who are enrolled externally. Some of the differences here in relation to specific items within the POSSE are highlighted in Figure 11 which shows campus-based students are much more likely to frequently work with other students – both inside and outside class time – during their degree.

Campus based students also recorded higher average scores for Student Staff Interactions, Enriching Educational Experiences and Supportive Learning Environment scales – all scales where a presence on campus is likely to lead to higher levels of engagement.

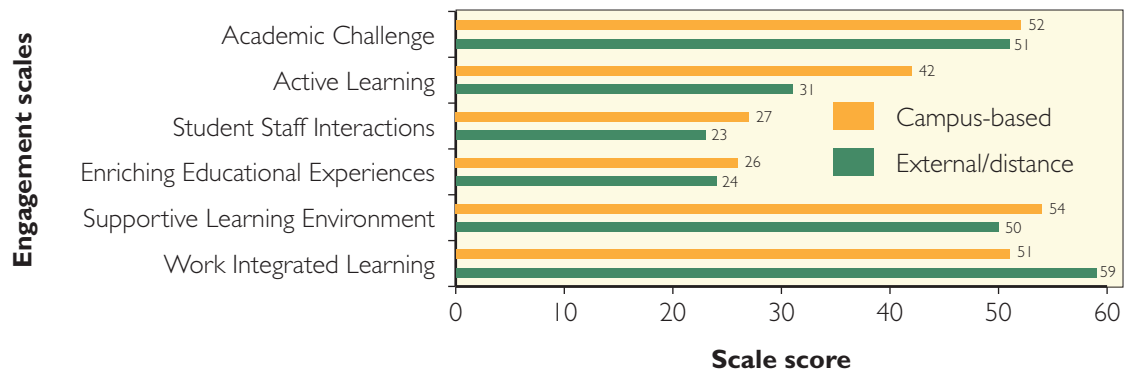


Figure 10 Average engagement scores by location of study

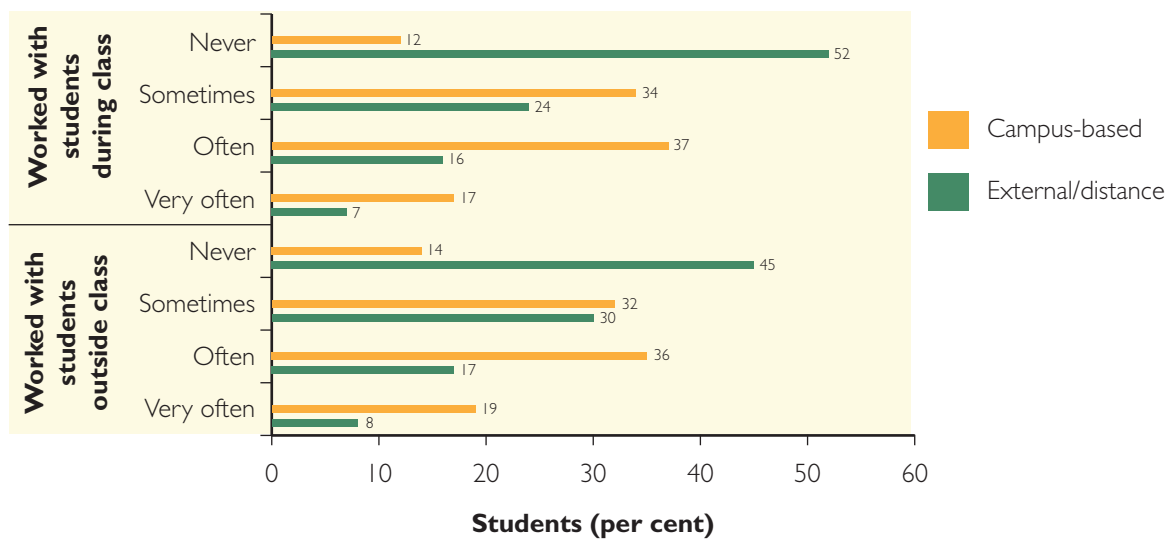


Figure 11 Participation in group work activities by location of study

Interestingly, it is the external students among the postgraduate group who feel more engaged in facets of Work Integrated Learning when compared to their campus-based classmates. This is perhaps an indication of the potentially tighter relationship between these particular students and their employers.

Plans for research study

Progression into a research degree is an ambition for a number of postgraduate coursework students. Coursework students are an important source of future researchers for universities and hence industry and the country as a whole. The 2010 POSSE highlights the extent to which students spend time considering a research degree.

Figure 12 shows that about a quarter of all postgraduate coursework students never consider a research degree. The proportion who have ‘often’ or ‘very often’ made such a consideration is relatively high at 39 per cent. This seems to suggest that coursework students’ intentions can be grouped in at least three ways – those who have no intention of moving into research

study, those who are undecided, and those with active intentions to progress.

Interestingly, there are different patterns in the extent to which a research degree is seriously considered when student responses are analysed by field of education. Science students are substantially more likely than others to have indicated they ‘very often’ contemplate a research degree (Figure 13). Agriculture and society and culture were the next most likely fields for students to express such interest in a research degree, although the gap between these two fields and the science field is more than ten percentage points. Students in management, engineering and creative arts showed the least interest in further study involving research.

Graduate coursework engagement

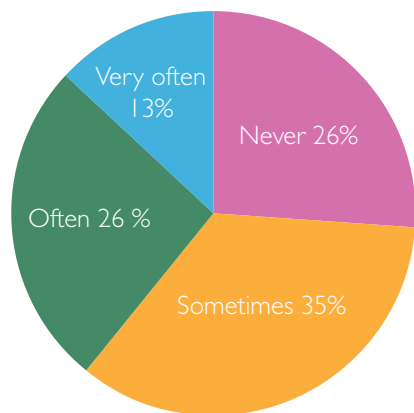


Figure 12 Coursework students' interest in undertaking research

Planning for a future career

Given the generally professional-focus of many postgraduate courses, examining the extent to which these students utilise career advice offered by their institution is of importance. Such information can inform higher education providers on how best to target and facilitate their careers advice structures. This initial examination of postgraduate use of careers advice is limited to looking at the extent to which they have utilised such services. However, further work to examine other aspects collected in the POSSE in this realm would be of use in future analyses.

Somewhat surprisingly, Figure 14 reveals that regardless of the point in which students are in their postgraduate degree, more than 40 per cent specifically indicate that they do not plan to consult any university-based careers advice services. By final year, less than ten per cent of the cohort indicated that they had consulted the careers service, while a further 25.8 per cent indicated that they had plans to do so.

Also of concern is that just over 10 per cent of all postgraduate students do not know about the careers services offered by their institution. These findings indicate that there is some work for universities to first inform students about careers services and second, to engage them in seeking this advice.

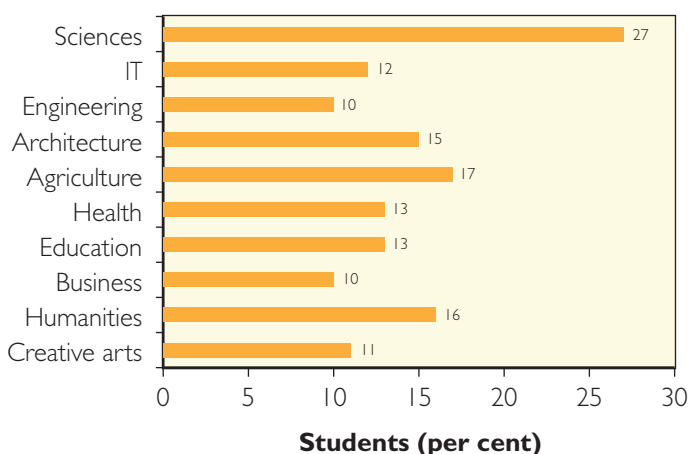


Figure 13 Coursework students who consider research study 'very often' by field

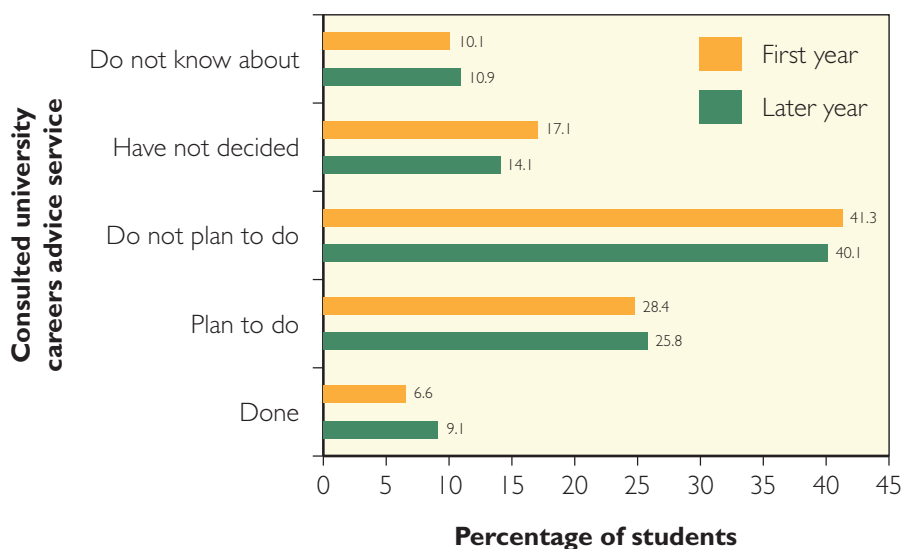


Figure 14 Postgraduate students contact with careers advice services at university

Postgraduate versus undergraduate engagement

The POSSE survey instrument is linked closely to the instrument administered to undergraduates, which allows comparison of results. This offers a particularly interesting insight into graduate coursework education in Australia, providing the ability to examine the extent of difference in terms of academic rigour and professional orientation, among other things, between the undergraduate and postgraduate level. A degree of overlap is to be expected, but it is also reasonable to expect postgraduate offerings to be more challenging and interactive.

In Figure 15 the three scales with the greatest variation between undergraduate and postgraduate students are shown: Academic Challenge, Work Integrated Learning and Higher Order Thinking. The postgraduate group have higher average scores on these three scales. The small, but important differences between undergraduate and postgraduate students are revealing. Importantly, of the engagement and outcomes scales in the AUSSE and the POSSE, it is these three which might be expected to have additional importance for students in the postgraduate years. Specifically, Academic Challenge and Higher Order Thinking are both areas where the expectations of a postgraduate degree would likely be high due to the heightened level of intellectual

rigour required of these courses, while Work Integrated Learning is also arguably an essential part of the reason many students chose to take up a postgraduate degree.

Examining specific items from the three scales highlighted in Figure 15 reveals notable differences in engagement and experience of postgraduate and undergraduate students. Figure 16 shows that the proportion of respondents among these two student groups who indicated involvement 'very much' or 'very often' in four areas – synthesising ideas; applying theories; making value judgements about information; and blending their learning with workplace experience.

On all four of these measures, the engagement of postgraduate students is notably higher than those from the undergraduate level. The gaps in the responses of students to the synthesising and to the blended learning items are the largest among these items, suggesting that there is substantially more engagement through the curricula for postgraduate students in these important areas of education and learning. Levels of higher order thinking also increase with the qualification level postgraduate students are undertaking, and students undertaking doctorates by coursework report significantly greater emphasis placed by their coursework on higher order forms of thinking than other postgraduate coursework and undergraduate students.

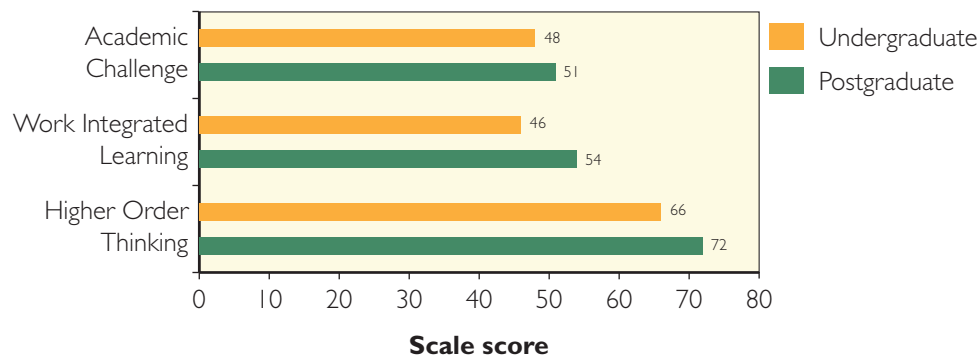


Figure 15 Average engagement scores by qualification level

Graduate coursework engagement

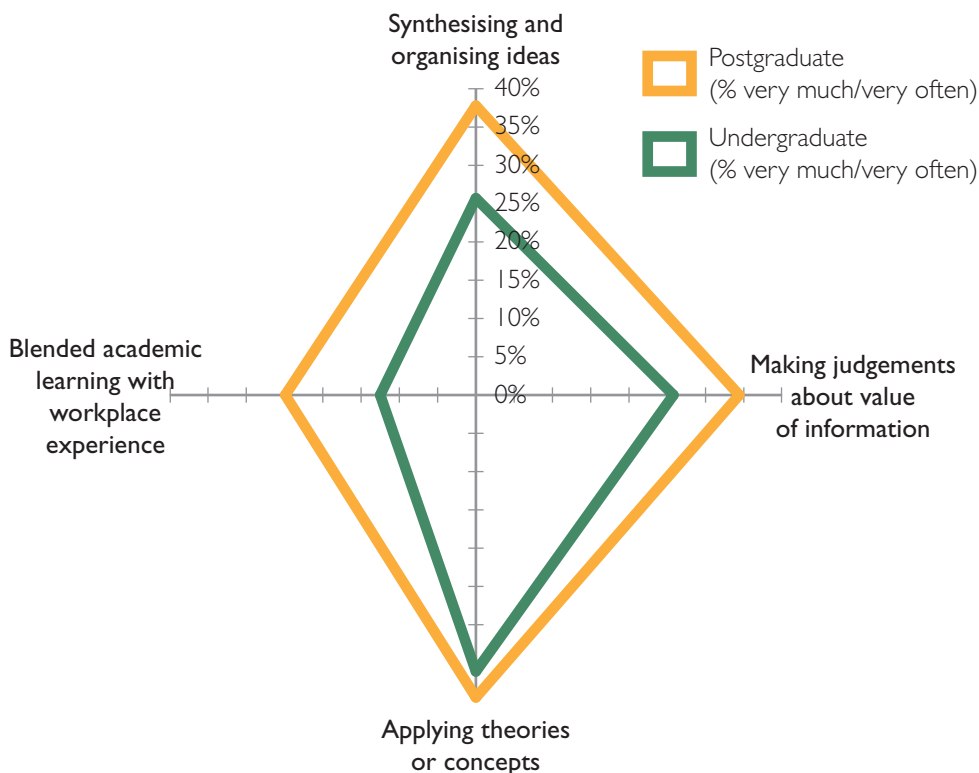


Figure 16 Academic engagement and outcome item scores by qualification level

Domestic and international postgraduates

International students are a substantial proportion of coursework postgraduates in Australia and New Zealand universities. This group is particularly important to the sustainability of the higher education in both countries. Among the POSSE cohort, international students comprise just over 30 per cent of all students. Therefore,

examination of basic measures of engagement for these students in comparison to domestic students are important and can provide a basis on which to undertake more detailed analyses.

Figure 17 and Figure 18 display the average scale scores for domestic and international students. These reveal notable differences in the engagement and outcomes of international compared with their domestic classmates.

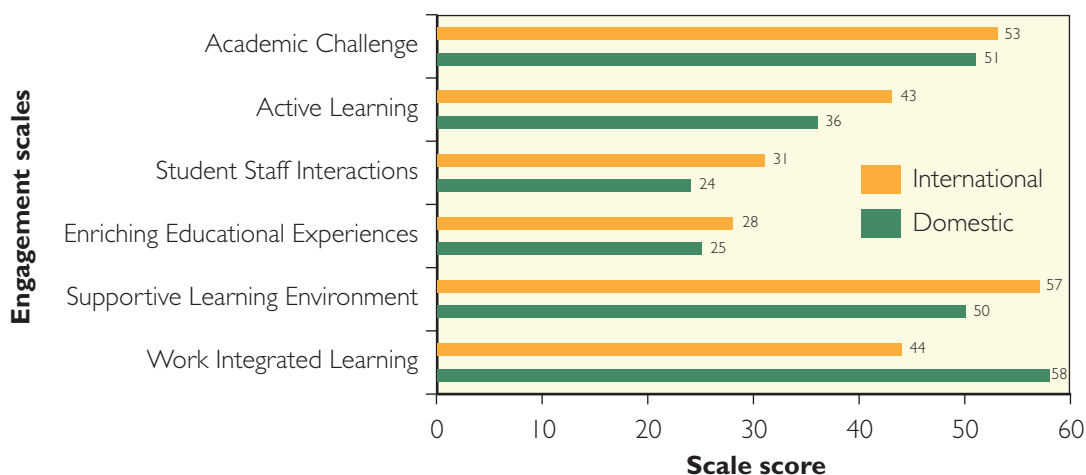


Figure 17 Average engagement scores by international status

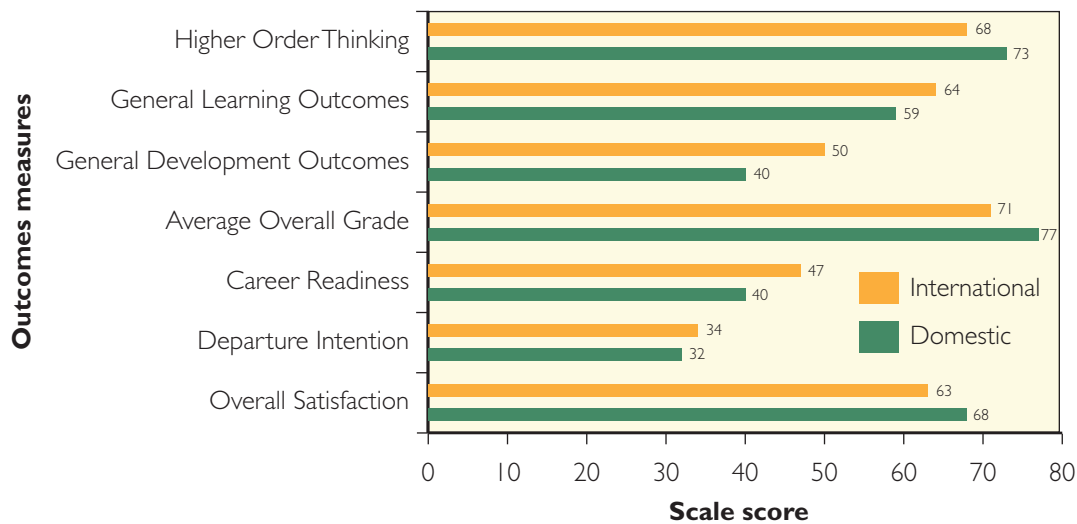


Figure 18 Average outcome scores by international status

International students record higher levels of engagement than domestic students on all engagement scales except Work Integrated Learning (Figure 17). Interestingly, it is on this scale that the largest differences in these two groups of postgraduate students are apparent. On the other engagement scales, the largest differences in favour of international students are found in relation to the Supportive Learning Environment, the Student Staff Interactions and the Active Learning scales.

There is less of a pattern in favour of either international or domestic groups in terms of outcomes (Figure 18). International students record higher outcomes levels for General Development Outcomes, Career Readiness and General Learning Outcomes, while domestic students have higher levels of Overall Satisfaction, Average Overall Grade and Higher Order Thinking. There is no notable difference between the two groups on the Departure Intentions scale.

An important dimension of the experiences and engagement of international students, and an area of immense interest to institutions and to student representative groups is the extent to which international and domestic students interact during their studies. Ideally, in the setting of a university, where different cultures and ethnicities spend time together working towards a common goal, interaction between students of different background should be desirable.

Results from the POSSE show that regardless of student type, very few postgraduate coursework students studying on campus in Australia and New Zealand do not have any contact with students who are 'different' to themselves. In general, however, international students are more likely than domestic students to 'very often' have conversations with students from a different ethnic group or students who are 'very different' to themselves.

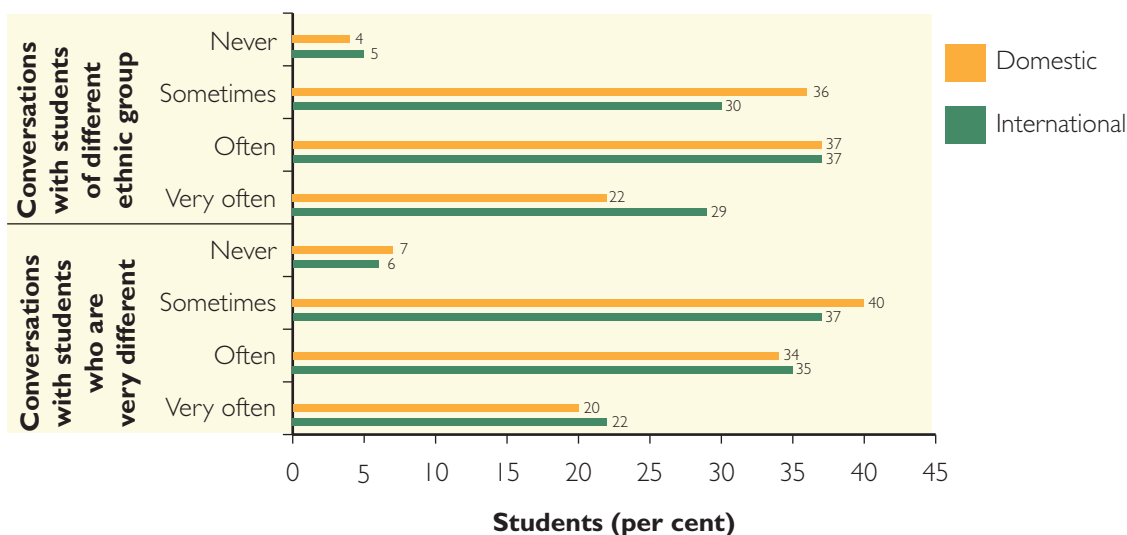


Figure 19 Intercultural experiences (campus-based students only) by international status

Graduate coursework engagement

International students also tend to have more positive perceptions of institutional promotion of interaction among different groups of students than domestic students. Figure 20 shows that 45 per cent of international students believe their university promotes such interaction either ‘quite a bit’ or ‘very much’. By comparison, a smaller 36 per cent of domestic students were of the opinion that their institution is supportive in these activities. For individual institutions the extent to which these perceptions are held by international postgraduate coursework students are likely to be very important in making campuses desirable places to enrol. In addition to this, then need to ensure that the perceptions of inclusion are also held by domestic students is very important in helping to build a universal feeling of acceptance and interest in fulfilling interaction among the postgraduate coursework group.

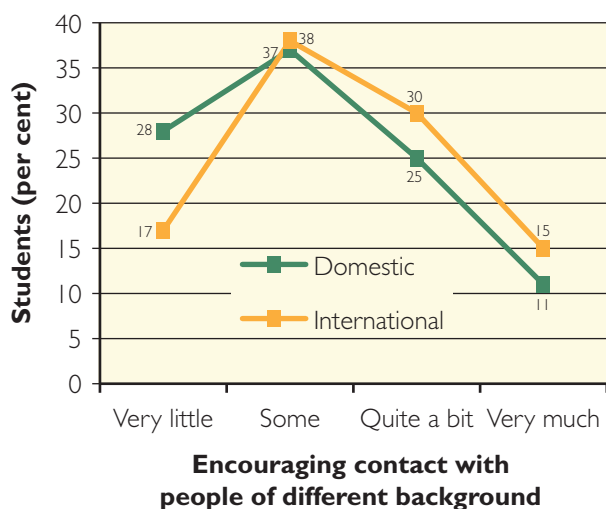


Figure 20 Diversification experiences (campus-based students only) by international status

Interaction with staff and fellow students

Involvement in group-work and interaction with students and staff outside of specified class times have been shown to have a positive impact on student engagement (for example, Coates, 2006). For postgraduate coursework students, the role of group-work is particularly important given the professional focus of many of these courses.

Figure 21 shows the proportion of students who indicate that they are ‘very often’ engaged in work with fellow students both in and outside class, and work with teaching staff outside class. There are revealing differences apparent here across these three measures, as well as between the fields of education.

In general, postgraduate students seem to be more likely to have involvement in work with other students than with teaching staff. It was only in the science fields that work outside of class appears to be evident between staff and students, possibly a result of experiments that are conducted in these fields that require extra time from staff and students.

In terms of group work with other students, architecture students indicated the most contact in such activities, followed by business, IT and creative arts. The findings here show that group work is less commonly experienced by education, health, agriculture and humanities students. This is somewhat surprising given the assumed emphasis of many of these courses is on professional practice and practical skill-building.

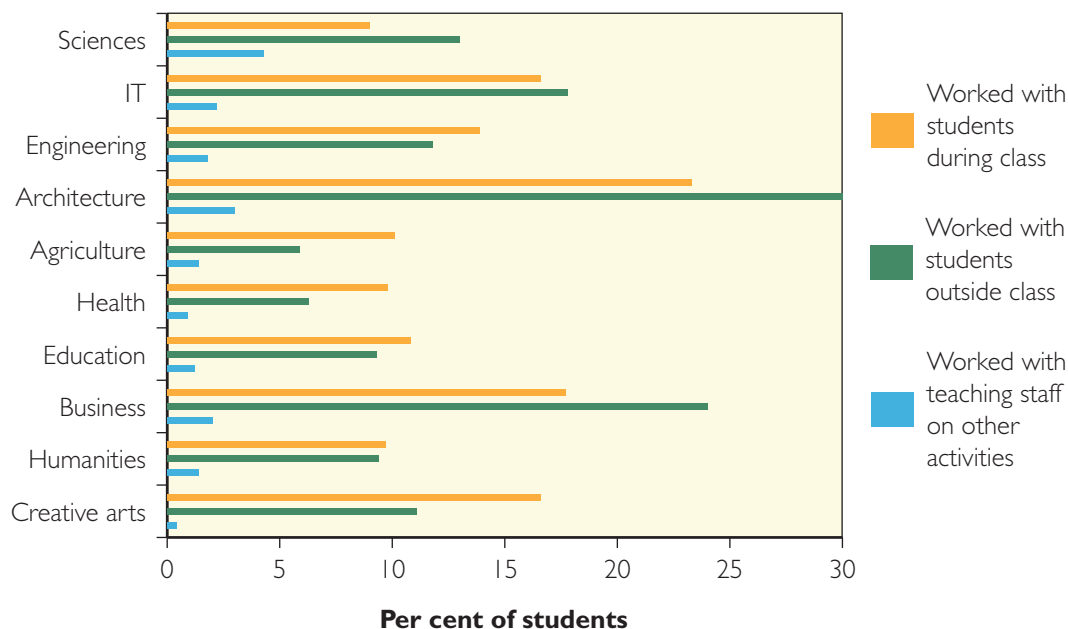


Figure 21 Proportion of students who 'very often' interact with other students and staff by field

Main findings and future steps

POSSE results provide important information for universities across Australasia to consider when developing and implementing student support and engagement strategies. The outcomes from the 2010 POSSE suggest that there is room for improvement across Australia and New Zealand, with engagement among postgraduate students being recorded at modest levels.

The analyses of results here suggest that there are a number of specific areas and practices that could be engaged to enhance the engagement of postgraduate coursework students in Australia and New Zealand. In relation to the findings from the six scales of engagement, two scales in particular stand out in terms of room for improvement among the postgraduate coursework group, they are Student and Staff Interactions and Enriching Educational Experiences. Activities to engage students more in these two key areas could include:

- additional opportunities for providing feedback and comment relating to assessments;
- offering greater opportunities for students to meet with teaching staff outside of class time;
- engaging students in discussions about career plans and relevance of subjects to these plans;
- encouraging students to participate in research or other activities with staff outside of the set curriculum;
- supporting conversations and interaction among students from different backgrounds,
- offering assessment tasks and subjects that involve fieldwork or placements; and

- enhancing opportunities for students to form study groups both during and outside of class time.

While these areas offer immediate and general areas for improvement across the postgraduate group, there are also a number of differences between different groups of students within this cohort that warrant further comment and attention. The research presented here has highlighted differences between the types of postgraduate coursework qualifications, differences among the fields of education, differences by campus-based and external students, and differences among international and domestic fee types.

The qualifications within the postgraduate coursework spectrum range from the graduate certificate, to the doctorate by coursework. The intellectual rigour, time taken and delivery of curriculum differ greatly across these courses, hence the finding highlighted earlier that there is variation in terms of levels of engagement cross the different qualifications that comprise of postgraduate coursework degrees. In particular, one area of note is the notably lower scale score of graduate certificate students on the Academic Challenge scale when compared to other qualification levels in the POSSE. This suggests that students at this level have less involvement in curriculum that encourages them to apply theories, make value judgements and undertake more rigorous forms of assessment. While the rigour of the graduate certificate is necessarily not as demanding as the other higher levels of qualification in the postgraduate coursework suite, the lower scores of this group on this scale does provide an opportunity for institutions to rethink some of the concepts and ideas that students at this level are challenged with – perhaps with the aim of increasing the demands on students from an intellectual viewpoint rather than any increase in the amount of assessments required.

Graduate coursework engagement

Among the fields of education the analyses in the body of this report revealed a number of notable variations. These results clearly show that as with other large scale surveys, consideration of POSSE results needs to be undertaken with the understanding of the substantial contextual and curricular differences across the fields of education (Edwards, 2009).

Of particular note among the fields of education in the postgraduate coursework cohort is the lower scale scores recorded by students in the information technology field. IT students recorded notably lower scores than others on Work Integrated Learning, Higher Order Thinking and Overall Satisfaction. While more analysis is required to further elucidate these results, there are signs from these analyses that more effort may be required to increase the levels of engagement among students in the IT field.

There are other notable issues that arise on an initial analysis of scale scores in the POSSE among the fields of education. For example, the findings show that while health students appear to have high engagement in forms of Work Integrated Learning, suggesting they are seeing close relationships between their study and their future careers and that they are engaging with the health sector through their study, the lower scores among this cohort in the Active Learning scale suggests that students in the health field are not so engaged with forms of learning based more prominently within the university and their fellow students. This example highlights an area where curriculum seems to have engaged students (through integrating learning into the workplace), but has fallen relatively short of engagement in terms of encouragement of learning activities within the university environment.

Another finding that has highlighted the need for examining issues by discipline was displayed through the extent to which students in the field of science were substantially more likely to have considered following their coursework degree by enrolling in a research degree. This helps to highlight that among the fields of education there are very different reasons for undertaking postgraduate coursework degrees and that the encouragement to follow ambitions after completion of this degree should be clearly understood by institutions and built into the way in which these courses are designed.

External students are an integral part of the postgraduate coursework cohort. The findings from the POSSE examined here show that more than one third of all respondents undertake their studies off campus and 30 per cent of students do all their classes online. The analysis of responses to the POSSE from these students shows that on all but one of the scales, their levels of engagement are lower than campus-based post graduates. This emerging group of students therefore warrants additional attention from their institutions. Further efforts to engage external students through limited but intensive on campus workshops and through improving the utilisation of online technologies for learning are ways in which some universities are already beginning to better engage this cohort (ACER, 2010).

Another crucial and large group of students among the postgraduate coursework group are international students. As highlighted earlier, these students make up a substantial proportion of all postgraduates (especially in Australia). The POSSE results for 2010 are of interest for this group of students, and provide a positive story, showing that on all but one of the engagement scales, international students have higher levels of engagement than their domestic classmates.

Also of note in relation to the international student cohort is that they are relatively positive about the extent to which their institutions promote inter-cultural activities and interaction between students. This finding is somewhat dampened by the fact that domestic students are much less positive in this regard, and highlights the needs for higher education providers to continue to promote activities that foster and promote interaction among all students.

Overall, the 2010 POSSE provides a useful, unique and critically important reference and resource for institutions and policy makers who are interested in fostering greater engagement with their postgraduate coursework students. The ongoing monitoring of engagement and the implementation of programs to enhance the experiences of all students is being embraced by institutions across Australasia. The results discussed here and the additional data available through the POSSE provides an integral tool for this to continue and thrive in the future.

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Graduate coursework engagement

Appendix I: Overview of the Australasian Survey of Student Engagement (AUSSE)

The AUSSE (ACER, 2011) was conducted with 25 Australasian universities in 2007, 29 in 2008, 35 in 2009, and 55 higher education providers in 2010. POSSE is an iteration of the AUSSE, administered to postgraduate coursework students. Most items in POSSE are common with those included in the AUSSE. POSSE was piloted in Australia and New Zealand in 2009 and administered fully in 15 higher education providers in 2010. It offers institutions in Australia and New Zealand information on students' involvement with the activities and conditions that empirical research has linked with high-quality learning and development. The concept provides a practical lens for assessing and responding to the significant dynamics, constraints and opportunities facing higher education institutions. The AUSSE provides key insights into what students are actually doing, a structure for framing conversations about quality, and a stimulus for guiding new thinking about good practice.

Student engagement is an idea specifically focused on learners and their interactions with higher education institutions. Once considered behaviourally in terms of 'time on task', contemporary perspectives now touch on aspects of teaching, the broader student experience, learners' lives beyond university, and institutional support. It is based on the premise that learning is influenced by how an individual participates in educationally purposeful activities. While students are seen to be responsible for constructing their knowledge,

learning is also seen to depend on institutions and staff generating conditions that stimulate and encourage involvement. Learners are central to the idea of student engagement, which focuses squarely on enhancing individual learning and development.

This perspective draws together decades of research into higher education student learning and development (Pace, 1979; Pascarella and Terenzini, 2005; Ewell and Jones, 1996; Astin, 1985; Coates, 2006, 2010; Kuh, 2008). In addition to confirming the importance of ensuring appropriate levels of active learning and academic challenge, this research has emphasised the importance of examining students' integration into institutional life and involvement in educationally relevant, 'beyond classroom' experiences.

The AUSSE measures student engagement through administration of the Student Engagement Questionnaire (SEQ) to a representative sample of first- and later-year bachelor degree students at each institution. The SEQ measures six facets of student engagement: Academic Challenge (AC), Active Learning (AL), Student and Staff Interactions (SSI), Enriching Educational Experiences (EEE), Supportive Learning Environment (SLE), and Work Integrated Learning (WIL). The SEQ is the most thoroughly validated survey instrument in use in Australian higher education, and has been revised for use in Australasian higher education.

The AUSSE and POSSE have close methodological links with the USA's NSSE. To facilitate cross-national benchmarking, work has been done to align the instrument, population, sampling, analysis and reporting characteristics of AUSSE and NSSE. There are close ties between the SEQ items and those used in

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Australasian Survey of Student Engagement (AUSSE)

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