JCU Learning Centre: Transformed, systematic, whole-of-institution support

SYNOPSIS

Since 2012, James Cook University's (JCU) Learning Centre has provided a comprehensive and complementary suite of activities that address the development of both generic and discipline-specific literacies and numeracy. A small team of 10, including learning advisors and other general staff, supports student learning across multiple physical campuses, study centres and the virtual environment. The suite of activities delivered through this programme is grounded in strong theoretical framings of the key areas of learning, language development and discipline numeracy. The programme aims to develop confident, independent, successful learners through authentic and relevant engagement with the demands of their chosen field of study and eschews deficit notions of students. The core innovation of this programme is a systematic and whole of institution approach to the provision of learning support and development that has proven benefits in terms of retention, engagement and achievement for the diverse student cohort at James Cook University.

CRITERION 1: DISTINCTIVENESS, COHERENCE AND CLARITY OF PURPOSE

Under the James Cook University Act of 1997, JCU has a legislated responsibility to "provide degrees of study or instruction to meet the needs of the community" (p. 8). Northern Queensland has lower participation rates in higher education than, for example, the Brisbane metropolitan region, and those who do participate in university studies come from significantly diverse backgrounds. JCU's current student profile includes students from low socio-economic backgrounds (24%), students from regional areas (20%), students from remote areas (4%), students who identify as Aboriginal and/or Torres Strait Islander (5%), and students from a non-English speaking background (6.9%), while over half of commencing students are the first in their families to attend university. JCU has embraced the widening participation agenda and strives to ensure all enrolled students are afforded every opportunity for success.

In 2011, JCU began a significant transformation of the ways in which learning support and development are provided to students. Previously, academic support for students was essentially via self or lecturer-referral for individual consultations and weekly generic skills workshops with occasional ad hoc guest lectures and remedial workshops. Academics had limited understanding of the work of learning advisors, and learning advisors had limited understanding of the student experience in the various disciplines. As the impacts of the massification and globalisation of higher education began to manifest in an increasingly diverse student demographic profile at JCU, it became clear that a new, more responsive approach was required. The Dean, Learning, Teaching and Student Engagement, Professor Angela Hill saw an opportunity to reform the theoretical foundation of the programme and ensure its scalability. An external expert and former president of the Association of Academic Language and Learning, Mr Alex Barthel, was commissioned to review JCU practice against the sector and provide examples of approaches that might be sustainable, scalable and strategic. Consultation with Associate Deans of Learning and Teaching across the university then followed, and bold steps were taken to develop a suite of activities that moved beyond individualised and siloed practices towards a future-orientated, inclusive and partnership approach addressing the crucial need to ensure that all students enrolled at JCU are afforded every opportunity to be successful in their chosen field of study. Since 2012, our programme, characterised by an innovative and distinctive whole-of-institution approach, has led to a coherent and considered suite of activities informed by national and international best practice and robust evaluation, and a sharp focus on student success.

Whole of institution approach

Historically at JCU, as at most Australian higher education institutions, some highly impactful learning support had been occurring in pockets through the efforts of champions. However, there had been no overall strategy and success had been largely dependent upon particular people and individual professional relationships. In 2012, JCU's Deputy Vice Chancellor, Academic (DVCA) sponsored the *English Language and Numeracy Policy*—one of the first of such policies in Australian higher education and recognised as such by leading experts in the field such as Ms Siri Barrett-Lennard, Team Leader, Study Smarter at University of Western Australia, who noted that JCU has *"excellent policies for Learning, Teaching and Assessment and English Language and Numeracy"* (2013). This landmark policy provided the anchor for a whole-of-institution approach and brought learning support in from the margins into mainstream learning and teaching practice. As noted by OLT Senior Fellow, Associate Professor Sophia Arkoudis in her 2015 review

of JCU's approach to learning support*:*

> *The University and staff are to be commended for establishing an institution-wide-strategy for the development and assessment of English language and numeracy. There is a significant body of national and international research indicating the importance of English language and numeracy development as a key factor for student retention and success at university.* (Arkoudis, 2015, p. 1)

The whole-of-institution approach for learning support articulates with JCU's retention strategy and the JCU *Access, Participation and Success Plan* to support a cohesive approach to retention and success. This whole-of-institution approach reduces overlap and the potential for conflicting support measures, and reduces the demand on students who navigate the services.

The *English Language and Numeracy Policy* articulates clear procedures that serve to guide practice and this *top-down*, *bottom-up* approach facilitates capacity building for discipline academics and, therefore, long term sustainability of the goals of the programme. As required in the policy, this work is not limited to particular cohorts of students but is applied across all JCU degrees: sub-degree, undergraduate, postgraduate and higher degree by research. Learning advisors are currently embedded into the Diploma of Higher Education, Bachelor and Postgraduate degrees identified by Associate Deans of Learning and Teaching and, additionally, developing thesis writing for students in Masters and Doctorate programmes.

Comprehensive suite of research informed programmes

The suite of programmes is best represented by the following adaption of the multilayered model for learning support and development published by Briguglio and Watson (2014) and shown in Figure 1. The model identifies the multiple layers and 'versions' of learning support and development that provide both discipline-specific and generic advice as well as resources for student self-access. The proportion of workload is strongly geared to discipline-specific and integrated support and a lesser proportion to delivering generic supports such as workshops and consultations; nominally, 70 per cent and 30 per cent respectively. These programmes are delivered across multiple modes by both peers and experts with the anchor point being the JCU Learning Centre.

The JCU Learning Centre operates in both virtual and physical spaces (at www.jcu.edu.au/learning-centre and in campus libraries) and provides the first level of *self-access resources* including, for example, 'Tip Sheets', booklets, templates and workshop materials. The Learning Centre connects students to other learning resources such as workshop schedules and registration, consultation booking forms and general enquiries. Occupying the next layer are the various generic programmes.

Figure 1 Multi-layered model of support and development adapted from Briguglio & Watson, p. 68, 2014.

The *generic programmes* comprise two key elements, workshops delivered by expert learning advisors and individual and small group consultations provided by both peers (senior high achieving students in paid positions) and learning advisors. The workshop series are delivered as part of an extended Orientation Week programme and as weekly interactive workshops. These include a two day Maths Refresher, a one day Studying in Australia workshop, a one day Academic Writing workshop, and weekly and 'just-in-time' workshops on Basic Statistics, Active Learning and Academic Writing for the Disciplines. Consultations provided by peers at the Learning Advice Desk are the first point of contact for students in the physical Learning Centre. Students are able to seek advice on a wide range of learning queries including time management, study strategies, assessment planning and writing review. In 2016, this service was made available to external students through email. For students who may need more expert assistance, for example those with English language development issues, learning difficulties, or maths misconceptions, referral to a learning advisor is the next step.

While the generic and self-access resources are made available to all students across all levels of the university, it is fair to say that this is not uncommon across many institutions in Australia. However, the JCU
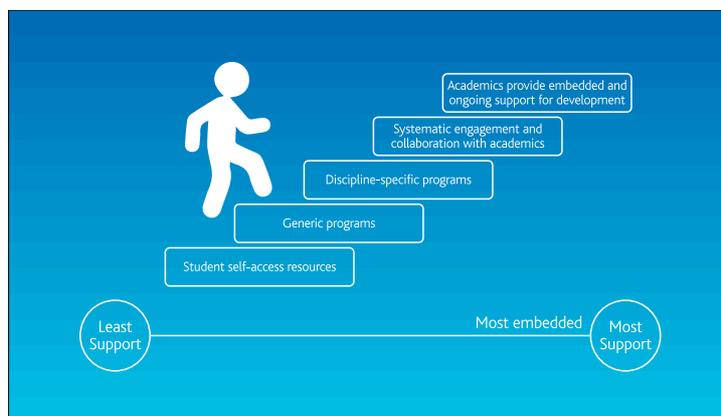
Learning Centre approach shows itself to be distinctive through the ways in which the support and development is embedded within the disciplines. Each year, agreements with each of the six Colleges are brokered via the relevant Associate Dean, Learning and Teaching. In November of each year, following careful analysis of relevant data, degrees and subjects are proposed for intervention. This intervention can take a variety of forms depending upon the specific contextual factors of the subject and the degree.

Discipline-specific support and development may be provided to first year students in identified degrees through the Peer Assisted Study Session (PASS) programme. This internationally recognised peer support programme has been in operation at JCU since 2014 and delivers quantifiable improvements in both retention and achievement. In addition, and complementary to this peer-led learning programme, learning advisors can be requested to provide expert support in key undergraduate and postgraduate subjects. This can take the form of ad hoc co-teaching, guest lectures, adjunct workshops, or targeted resources to support development of discipline-specific literacies or numeracy and assessment planning. These learning experiences are planned in cooperation with discipline specialists and relate directly to the content of the subject or degree. This highly contextualised support makes explicit the discourses, genres and numeracy demands utilised by particular disciplines in one-to-many, one-to-small group and one-to-one situations. These activities may take place as a precursor to the systematic integration of a learning advisor, or may occur as part of an exit strategy in a subject or degree where the learning advisor has been embedded and the work with the subject coordinator has 'matured' and only occasional consultation or collaboration is required.

The *systematic integration of learning advisors* is underpinned by extensive and detailed analysis of institutional data to determine the most strategic use of resources. In these activities, learning advisors collaborate closely with discipline academics to integrate academic literacies and numeracy into curriculum and assessment across a degree of study. This also involves collaboration with various other stakeholders such as educational designers, career development officer, wellbeing officers and library staff. This approach is acknowledged as sector best practice by experts such as Ms Siri Barrett-Lennard from University of Western Australia who, in her 2013 summation of the JCU approach, noted, "*This is best practice in Australia and has already had a profound impact on student learning".*

The final layer of the programme is discipline *academics providing embedded and ongoing support and development*. At this point, the approach has reached its *raison d'etre* in that the capacity of discipline academics has been enhanced to provide explicit teaching around key literacies and/or numeracy drawing upon the learning objects and artifacts produced by learning advisors previously integrated into the subjects/degrees. As curriculum and assessment are key drivers of student learning, work at this level ensures the goal of achieving a sustainable, scalable and strategic approach to learning support and development is achieved.

Robust evaluation
Central to the Learning Centre programme has been the use of data to inform practice and drive innovation and creativity. The strategic collection and analysis of relevant data and the considered input from critical friends and external evaluators has been a vital element in providing a responsive programme, clearly focussed on student success. Data is routinely collected at all service points to ensure a clear understanding of who is utilising the programme, for what purposes, and at what times. Student IDs are used as a unique student identifier (USI) that connects student data across key institutional databases including demographic information, achievement, progression and degree enrolment. The judicious use of targeted student surveys focusing on student satisfaction and constructive feedback provides insight into the student experience. Furthermore, the evaluation process explores staff experience via various formal methods including staff forums and surveys as well as informal methods such as sharing of anecdotes and case studies.

An essential element of the continuous quality improvement is the utilisation of experts from the field as formal evaluators as well as critical friends and providers of professional development. Table 2 identifies the key experts who have provided critical review of the programme since its inception.

Table 1. Experts who have reviewed the programme

Year	Expert	Position (at the time)	Role
2012	Mr Alex Barthel	Independent Consultant and inaugural President of Association of Academic Language and Learning	Benchmarking sector best practice (approach)
2012	Prof. Janet Taylor	Director of Teaching and Learning Southern Cross University	Informal critical friend (numeracy)
2012	Mr Alex Barthel	As previous	Professional Development (approach)
2013	Ms Siri Barratt-Lennard	Team Leader, Study Smarter University of Western Australia	Formal critical friend (overall programme)
2013	Ass. Prof. Sophia Arkoudis	Melbourne Centre for the Study of Higher Education and Office of Learning and Teaching Senior Fellow	Professional Development (communication skills)
2013	Mr Alex Barthel	As previous	Formal evaluation
2014	Ass. Prof. Linda Galligan	Academic Liaison Officer University of Southern Queensland	Professional Development and critical friend (numeracy)
2014	Ass. Prof. Carmella Briguglio	Manager of Communication Skills Centre Curtin University and Office of Learning and Teaching Fellow	Professional Development (approach)
2014	Ass. Prof. Sophia Arkoudis	As previous	Formal evaluation (approach)
2015	Dr Rowena Harper	Head, Language and Literacy, University of South Australia and President, Association of Academic Language and Learning	Formal critical friend (overall programme)

Focus on student success

The JCU Student Charter states "JCU is committed to providing a supportive and safe educational environment that fosters student engagement and success." This principle informs the ways in which The Learning Centre staff work with students. All efforts are directed towards developing independent self-directed learners and away from creating dependency. As noted by Gale (2012), "opportunity confined to support is not equity" (p. 249). It is this focus on student success that that has shaped the layers of intersecting support and development that characterise The Learning Centre programme of activities. Data collection has moved beyond recording student satisfaction with the various offerings to undertaking sophisticated statistical analysis to measure impact on student success and retention as well as qualitative responses around the student experience.

Student success is not measured in terms of 'repeat business' but rather as a combination of student achievement, sense of self-efficacy or confidence and satisfaction with the services provided. Additionally, the purposeful engagement with academic staff has a clear impact on student success. By framing all activities around student success, the team remains focused on delivering activities that are responsive to student needs as well as informed by current research and best practice.

CRITERION 2: INFLUENCE ON STUDENT LEARNING AND STUDENT ENGAGEMENT

Key to the sustainability and success of the programme is the strategic targeting of interventions and support and the well-considered mix of activities that aim to develop students as independent learners within a vibrant and welcoming learning community. Although isolating the influence of a single factor on student learning can be challenging to quantify, the available data demonstrates clear benefits of our activities to student learning and the student experience as well as the sustained effectiveness of the programme over time.

Table 2 provides a summary of the analysis of elements of the programme provided to first year bachelor and diploma level students in 2015, i.e., PASS, individual consultations and generic workshops, which has shown a significant boost in retention of students who utilise this support when compared with students

who did not. This boost is as much as an **18% increase in retention** and up to **1.4 grade points** (on a 7 points scale).

In addition to analysis at the programme level, individual lecturers have examined the data from their classes and noted a significant improvement in student achievement and in student engagement. For example, Dr Jan Marten Huizenger, lecturer in Introductory Geology has stated:

Table 2.Retention and achievement: 2015

Activity engaged (2015)	Retention	GPA
PASS	82%	4.42
Consultations	84%	4.43
Workshops	77%	4.19
Consultations + Workshops	87%	5.16
All first Year	*69%*	*3.76*

> *I cannot emphasise enough how much both PASS and the weekly learning sessions by [Learning Advisor] in our practicals have helped us and the students. We received positive feedback on this from the students and the results were also clearly visible in the statistics, showing a significant improvement in 2015.*
> *In 2014, failing grade students: 26% and High Distinction and Distinction students: 25% and in 2015 failing grade students: 14 % and and High Distinction and Distinction students: 34%. Generally, the subject received very positive feedback last year (score of 4.7 out of 5 for subject satisfaction), which in my view is a reflection of what we have done as a team in this subject.* (2016)

Furthermore, the programme builds staff capacity around teaching and learning strategies and assessment across all degree levels, which is improving the student experience of learning and teaching. This is evident in the comments from Ms Kerry Russo, Associate Dean, Learning and Teaching in the College of Business, Law and Governance, where learning advisors have been embedded in identified degrees since 2012. (See supporting materials: video)

> *What we really like about the academic advising support that we have available within the College is that it is really a whole-of-institute approach. It has a lot of support for our staff as well as our students so it builds capacity in our staff. Staff come together and work with one of the learning advisors to ensure that the assessments we are using, the learning and teaching strategies we have in place are student friendly and that students are going to be able to connect, identify and engage with material we have. It really assists our students to be able to participate.* (2016)

Strategically targeted support

The whole-of institution approach is best exemplified by the ways in which degrees and subjects are identified to be included in the integrated learning advisor activities. Since 2012, the Learning Centre team has targeted core foundational subjects across a range of degrees and sub-degrees. These are selected based on data that shows student retention that is less than the JCU average, success rates that are below expectations, and high levels of student diversity (identified equity groups). Initially, only undergraduate degrees were identified, but, more recently, this has been extended to diploma and postgraduate degrees.

Figure 2. Whole-of-institution consultation process
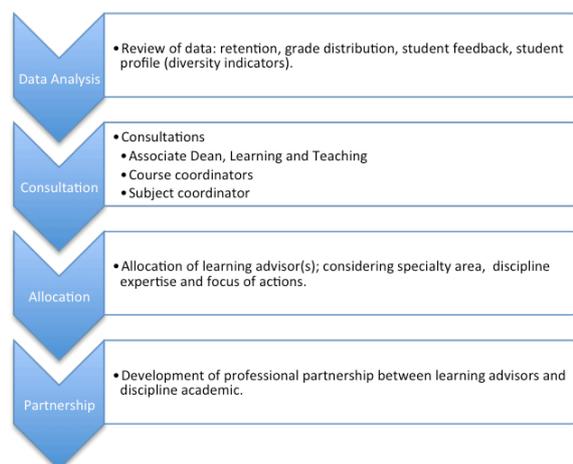
As indicated in Figure 2, following the identification of degrees, consultations are held with the College Associate Deans, Learning and Teaching, degree coordinators and other stakeholders to identify appropriate subjects where learning advisors could be best placed. Following this brokering process, and as summarised in Figure 3, the learning advisors then work closely with each subject coordinator to determine a bespoke approach that acknowledges the learner profile of the subject, the demands of the degree and the subject, and current assessment and teaching practices. Existing practices are examined in light of best practice examples sourced by the learning advisor and, through a collaborative strengths – based approach, a plan forward is made.

Consistent across all degrees, and in line with the English language and numeracy policy, the learning advisor administers and marks an early low-stakes formative assessment such as a post-entry language or numeracy assessment (PELA/PENA).

Figure 3. Process of collaboration with academics

From the results of this early task, and drawing upon the learner profile, a suite of discipline-specific support activities are developed to explicitly address the demands of the assessment tasks and to equip students with strategies to approach their studies. The actions take a two-pronged approach, with specific support and development directed towards underprepared students as well as whole cohort support for the development of discipline-specific literacies and/or numeracy. For underprepared students, these activities include targeted workshops and individual consultations with students who score below expectations in the PELA/PENA, failed an early assessment item, or are repeating the subject. For the whole cohort, these discipline-specific activities might include annotated assessment exemplars, deconstructing relevant genres, developing strategic approaches to study and preparing for exams. Across the various delivery modes, these activities are undertaken via combinations of online modules, screencasts or online sessions in Blackboard (via Collaborate), team teaching in lectures and/or tutorials, targeted workshops, common discussion times, LibGuide development and the facilitation of study groups. Table 3 indicates the numbers of unique students for whom this support has been made available.

Table 3: Numbers of unique students participating in discipline-specific activities

		2012	2013	2014	2015	2016 To June
# enrolled in identified subjects	Integrated learning advisor	2900	3300	3780	3820	2911
# students attended	PASS	n/a	n/a	1090	1130	~1200

The provision of PASS is also underpinned by available data and strategically deployed across the institution. Delivery of PASS at JCU is consistent with the National Centre for PASS and, as indicated above, has proven highly successful in improving student engagement and achievement. These valuable peer-led sessions are delivered both face-to-face and online via Collaborate. In 2016, innovations such as iPads are being trialled in PASS with the intent of extending the learning communities into the online environment and as a means for students to create learning resources for themselves and their peers. The Learning Centre receives many more requests for PASS than can be filled. These requests come from both staff and students with students going so far as to petition lecturers and The Learning Centre to have PASS attached to subjects they perceive as difficult. Table 3 identifies the number of unique students attending PASS, recognizing that students may attend across both study periods but are only represented in the count once.

The generic workshop series are also strategically targeted to provide students with maximum benefit. These workshops focus on building confidence, competence and critical awareness (Galligan, 2013) and are provided as just-in-time opportunities that form part of an extended orientation and transition programme. In addition to activities in orientation week, interactive, expert-led and peer facilitated workshops are delivered on weekends following orientation week. These include a two day, hands-on *Maths Refresher*, a full day workshop to introduce international students to the expectations of the Australian academic environment called *Studying in Australia*, and *Academic Writing*, a full day workshop delivered in collaboration with library staff to assist students to effectively plan and complete written assessments. In addition to the weekend sessions, hour-long workshops on active learning, academic writing in the disciplines, and basic statistics are held at strategic times during the study period. The series offered on each physical campus has evolved over time in response to constructive feedback from students, trends in attendance and a move to ensure cross-campus consistency and equity of offerings. Therefore, longitudinal comparative data is not available. However, as can be seen in Table 4, attendance data for 2015 and 2016 (year to date) show strong take-up of these activities.

The provision of support to higher degree by research students is centred on writing development and either providing candidates with early intervention or supporting them to complete their

Table 4 Students accessing generic services 2015 and 2016

Generic Service	2015	2016 (to June)
Workshop Attendance	2086	1292
Consultations	1252	468
Peer Advice Desk	1498	975
Online after-hours service	n/a	1226

theses. Support for HDR candidates is provided in close collaboration with the Graduate Research School (GRS). In this case, all students whose home language is not English undertake a PELA task and those students who perform below expectations are required to participate in a series of workshops and individual consultations to build their capacity. Additionally, a pre-entry language assessment is provided to candidates for whom language waivers have been requested. Survey responses from candidates regarding this form of support for the doctoral journey indicate 100% of respondents found the experience excellent, very good or good. Candidates identified by the GRS as at risk of not completing are required to attend writing workshops that take the form of writing retreats, small group drafting and feedback sessions, and individual consultations.

Building confidence and building community

Underpinning the goal of developing independent learners is the provision of activities that, while obviously focussed on developing competence, also develop confidence and bring students together in learning communities. Prior to the commencement of a workshop, students are asked to nominate their level of confidence and competency on a 1-10 scale and then revisit this on completion. Across all workshop offerings, 100% of students surveyed following the workshops indicate an increase in both confidence and competency. This is especially evident in the *Maths Refresher* workshops that have been operating across both campuses since 2013. As noted previously, these workshops are offered as a two day, peer-facilitated and expert-led hands-on workshop immediately following orientation week, but before the study period commences. This is deliberately timed to ensure that students have an opportunity to re-familiarise themselves with mathematical language and symbols prior to commencing subjects with mathematical demands. It is well established in the literature that maths anxiety is a significant predictor of students' performance in basic and applied maths tests and that students who are anxious about their performance in maths tasks also have very little confidence in their math ability. Furthermore, students with low self-efficacy and anxiety about mathematics find it difficult to shift from this negative mindset (Boaler 2016). These workshops provide a valuable opportunity to 'get off on the right foot' when it comes to engaging with mathematics at university. The workshops are particularly marketed to students in Education, Nursing Science, Social Sciences and the Diploma of Higher Education. To illustrate, below is an extract from the feedback provided by a student (Diploma of Higher Education: Engineering stream) who attended the 2015 Maths Refresher (Study Period 1) two day workshop:

Table 5. Student feedback from Maths Refresher SP1 2015

	Before	**After**
Confidence	*2 Pretty much no confidence. Reason I knew I had to come this weekend*	*8 Massive boost in confidence. Feels like a headstart and have already learnt the fundamentals I neglected in school. Great weekend!*
Competence	*3 I had not taken maths seriously during school. Did not have an interest at the time.*	*7 I have learnt a lot more now but I still have a lot more to catch up for myself.*

Experiences such as this are common across the workshop series.

> *English writing is a challenge for me but now am more confident in avoiding plagiarism.* (Studying in Australia, higher degree student, 2016)

> *This workshop was well worth the effort. The help and feedback was appreciated and I learnt new skills that will help myself with future assignments. […] It's nice to have a dedicated time to get feedback from a professional, while you are writing or still going through your writing.* (Academic Writing, postgraduate student, 2016)

The increase in confidence is not limited to the workshop series. Students who responded to surveys regarding their experience in subjects supported by an integrated learning advisor provide similar comments such as:

> *Overall, I cannot stress how valuable [learning advisor] was in my learning process in this subject.* (Arts student, 2012)

> *[learning advisor] explained the requirements and expectations for each assessment task giving examples of past work at varying levels.* (Education student, 2012)

Overall, I found the Learning Advisers to be the missing piece in becoming a successful and confident student. (Psychology student, 2013)

I found that the Learning Adviser was a vital part in my success this semester. Being a mid year entrant I found that I did not feel prepared and that I understood things enough. (Education student, 2015)

Thank-you for the resources and Camtasia recording for assessment 3A. Being an external student who commenced studies this semester, these resources are very helpful and appreciated. (Business student, 2015)

Students who responded to the PASS surveys also reported confidence building experiences when asked what they liked most about PASS. For example:

Encouraged me to put more work in as it makes me realise what other students know. Also realise that you do know things. (2014)

Being able to help others with understanding certain topics in a degree and, in turn, receiving assistance in other areas I don't quite really understand. (2015)

CRITERION 3: BREADTH OF IMPACT

The direct benefits to student learning of this innovative approach to providing academic development for students have been clearly identified in the preceding criterion. However, the programme has not only targeted identified needs and directly enhanced the student experience, it has also had impact for students who work as paid peer leaders, for academic staff and for other higher education institutions.

Peer leaders

Through this programme, JCU provides paid work on campus for students. In addition to the financial benefits, students receive substantial training across a range of employability skills including, but not limited to, facilitation, leadership, effective communication, and team work. Peer leaders are employed as facilitators of the weekend workshops, PASS leaders, PASS leader mentors and Peer Advisors at the Learning Advice Desk (individual and group consultations). In each role, the peer leaders are provided with structured training, performance review and ongoing professional development. For each role, there is a cross-campus online learning community where the peer leaders are encouraged to upload resources, share tips and ideas and engage with their colleagues on the other campus. Peer leaders are asked to provide feedback on their role, the activities and also to engage with the review and (re)development of the activities in which they are employed. The operational manuals for each role are actively reviewed by the peer leaders each year and all updates are generated by the student group.

Those students working in the various elements of the programme report that the role(s) provide them with multiple benefits that extend beyond the obvious financial support. These benefits are a testament to the high value The Learning Centre places on providing explicit training and ongoing professional development. Comments from students working in these roles are well represented by the following:

[T]hank you for all your help this semester, and for giving me the opportunity to work as a Pass Leader this year. It has truly been an amazing experience, I've gained so many skills from participating in the programme and I'm sure these will aid me in my future endeavours. (Tegan Zurbo, PASS Leader, 2015)

Working as a Peer Advisor and a PASS Leader has completely changed my career aspirations. When I first started working for the Learning, Teaching and Student Engagement team I was in the third year of the Bachelor of Psychology. At the time my aspirations were to finish the degree and go into clinical practice. By the end of my degree, after working with students both on the Learning Advice desk and in PASS, I changed my mind. I am now on the road to complete a PhD to continue to work with students and be inspired by education and knowledge. (Raquel Peel, PASS Leader and Peer Advisor, 2016)

Academic staff

The highly collaborative approach that characterises the integrated learning advisor activities has had significant benefits for discipline specialists and other collaborators (e.g., librarians). Through this collaborative process, learning advisors (who all hold qualifications in education) are able to model explicit

teaching practices that are contextualised with respect to the discipline and the learner profile. The approach is best described by the 'Working in the third space' model proposed by Briguglio (2014). Staff interviewed by an external evaluator (de-identified) in 2013 provided the following comments:

> *The level of collaboration with the Learning Adviser in my subject has been outstanding. This has resulted in the development and distribution of high quality resources and a consistent high level of support for staff and students. The integrated approach to subject planning and student support appears to have made the outcomes positive for everyone.* (Discipline academic, 2013)

Through the programme, learning advisors have been able to assist staff to understand and implement the English language and numeracy policy, to meet the institution's obligations under the TEQSA standards for Higher Education, and to contribute positively to the scholarship of teaching and learning. One example of this contribution can be seen in the awarding of JCU teaching and learning grants to collaborative teams that involve learning advisors and discipline academics and in the awarding of a JCU Citation for Outstanding Contribution to Student Learning in 2014 to the *Maths in Science Teaching, Research and Development Team*. The team included a maths learning advisor and the citation reads:

> **For innovative team-based approaches to enhancing first year students' engagement, confidence and learning achievement in the use of mathematics – the common language for the natural sciences.**

The team went on to be awarded an Office of Learning and Teaching Citation in 2014.

The higher education sector

James Cook University is committed to not only the utilsation of best practice examples from the sector, but also to disseminating and sharing practices that contribute to the broader goals of improving access, participation and success of students across Australia and beyond. Various team members from The Learning Centre have delivered papers and presentations at national and international conferences regarding the suite of activities in place at JCU. In addition to fielding individual enquiries from colleagues across the sector, the team has contributed to the sector as invited guest speakers at various events. This broad engagement is summarised in Table 6, below.

Table 6. Dissemination through publications and presentations

Year	Format	Topic	Event
2013	Refereed paper	More than Generic Skills: Systematic Integrated Learning Advisers (SILA) Supporting First Year Students in Low Retention Degrees	First Year in Higher Education Conference, Wellington, New Zealand
2013	Invited speaker	The Systematic Integrated Learning Adviser programme at James Cook University	Association of Academic Language and Learning Symposium (AALL), University of Sydney, Sydney
2014	Refereed paper	Interdisciplinary collaborations: enacting a third generation transition pedagogy	EduLearn 2014, Barcelona, Spain
2014	Refereed paper	Responding to increasing linguistic diversity: unpacking language development in the disciplines	International Journal of Arts and Sciences Venice Conference, Venice, Italy
2014	Invited speaker	Mainstreaming academic literacies and numeracy through the collaborative renewal of curriculum, pedagogy and assessment.	AALL Symposium, Queensland University of Technology, Brisbane
2014	Panelist	Degrees of Proficiency: Ways forward in building a strategic approach to university student's English language assessment and development	AALL and Office of Learning and Teaching Symposium, Southern Cross University, Coolangatta
2015	Panelist	Top three tips for implementation of innovation in developing and assessing communication skills and numeracy	JCU Learning and Teaching Academy, JCU, Townsville
2016	Invited speaker	A systematic approach to supporting student learning at JCU (working title)	From the Margins to the Centre: The future of University literacy support & writing across the curriculum. Flinders University, Adelaide.

CRITERION 4: ADDRESSING EQUITY AND DIVERSITY

The suite of activities implemented by The Learning Centre was developed around a fundamental concern for equity and diversity. As described in Criterion 1, James Cook University has a legislated responsibility to meet the needs of the North Queensland region. JCU's programmes and policies are informed by the diverse needs of the region and are designed to challenge socially constructed educational disadvantage. In particular, JCU's English language and numeracy policy recognizes that language and numeracy are developmental and that students' language and numeracy standards on entry will need to be further developed across the duration of their studies to ensure they meet appropriate standards on graduation.

Multiple approaches to meet multiple needs

In order to achieve the best possible outcomes for students, the programme employs peer-led and expert-led activities, individualised, group and whole cohort support for both discipline-specific and generic academic assistance. While the support directly targets underprepared students in degrees with diverse students, it also works to extend students who are well placed for success achieve their goals. This programme addresses the needs of students at all levels of study—diploma, bachelor, postgraduate and higher degree by research—with the goal of developing independent, self-directed learners and normalising help seeking as simply part of what successful students do.

The impact of activities provided by The Learning Centre in 2015 was analysed using a statistical technique known as cluster analysis (K-Means). In this analysis, groups of students that shared characteristics known through previous analysis by the institution to be strongly related to success and retention at JCU were created. The factors include students' OP score, age, broad field of education, gender, whether they are first in family to attend university, if their permanent home address is from outside the local statistical division, whether they identify as Australian Aboriginal or Torres Strait Islander, and the type of programme they are enrolled in.

This detailed analysis has shown that there were **significant improvements in the retention and GPAs of students in each of the cluster groups** that participated in PASS and, in the case of attending consultations and workshops, for all clusters except students in the OP range of 21 to 25 and Australian Aboriginal and Torres Strait Islander students. For Australian Aboriginal and Torres Strait Islander students there was no significant statistical difference in their retention rate nor GPA whether they participated in any of the programmes or not despite an apparent improvement in retention rates and GPAs. In particular, the retention rate of Australian Aboriginal and Torres Strait Islander students who had participated in short courses and consultations (89%) and the retention rate of those who only engaged in consultations (80%) would indicate the programme has been effective. The nine Australian Aboriginal and Torres Strait Islander students who undertook short courses and consultations had significantly higher GPAs than those Australian Aboriginal and Torres Strait Islander students who did not participate in these programmes at all.

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