Making it work: improving multi-campus and distance client support through collaboration and technology at CQUniversity Library

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CQUniversity Library partners with other areas of the university to develop and deliver services to effectively support students and staff across multiple campuses, as well as a large cohort studying via distance. This paper covers highlights and lessons learnt from collaborating internally and with other areas of the university, including:

- partnering with coordinators of an enabling course to convert a printed information literacy workbook into an interactive online guide
- working with the IT services centre to staff a combined video call centre for library and technology support.

The paper will also address a variety of technological solutions used to enable this collaboration, including:

- building basic library skills development materials in the learning management system, to better integrate with unit sites
- combining a number of software solutions to schedule, deliver, and seek feedback for face-to-face and online sessions with librarians
- using communication and call centre solutions to enable video as well as phone calls, with more complex or specialist library queries escalated to a virtual team spread over multiple campuses
- using a service management system to track and transfer service requests and capture statistics
- using SharePoint and Jabber to communicate and build a "one team" culture across multiple locations.

Background

CQUniversity is a dual sector, multi-campus university. CQUniversity has 16 campuses, including newly incorporated regional Queensland vocational education and training campuses in Gladstone, Emerald, Mackay and Rockhampton, along with existing higher education campuses in Adelaide, Bundaberg, Brisbane, Cairns, Gladstone, Mackay, Melbourne, Noosa, Perth, Rockhampton, Sydney and Townsville. Other locations – a mix of distance education study centres partner study hubs, study centres and delivery sites – have been established in Biloela, Broome, Busselton, Charters Towers, Cooma, Geraldton, Karratha and Yeppoon.

The institution is unique among Australian regional universities in that it has a large geographic footprint, and is Queensland's only dual sector university. Students can study by distance, on-campus, or a combination of both. The distance education student cohort currently makes up 60% of enrolments. Current enrolments include school leavers, mature age students, students from low socioeconomic backgrounds and indigenous students. There are also 5,100 international students. Figure 1 shows enrolment data by course type. CQUniversity has broadened its course offerings over the last five years to include medical and applied sciences, allied health, transport and safety science, physiotherapy, and law.

STUDENT ENROLMENTS BY COURSE TYPE

COURSE TYPE	2014	2015	2016
Vocational Education and Training	6,376	9,433	8,847
Undergraduate and non-award	14,490	15,103	16,296
Postgraduate Coursework	4,744	4,986	5,281
Research Higher Degree	419	427	412
*Data correct as at December 2016			

Figure 1: CQUniversity student enrolments by course type (CQUniversity Australia, 2016)

The Library merged with the Information Technology Directorate in 2013 in a university-wide restructure, forming the combined Information and Technology Directorate. Reduced staffing levels created the impetus for a review of the organisational structure, service model and core services. A matrix organisation structure introduced in 2015 leveraged staff skills across all campuses and created opportunities to form virtual teams and a realignment of reporting lines within the Library (figure 2).

In 2015 the Library began a transformation program of 21 individual projects, including extensive user experience feedback collection, a client service review, the development of a communication strategy, the development of a catalogue of services, the implementation of video service kiosks in all libraries, a review of learning and teaching support materials and delivery platforms, a renewal plan for research support, and the planning and preparation for a new library system.

As well as launching an ambitious renewal program, the Library began focusing on combining some Library and IT services and functions. The traditional IT helpdesk had been replaced by the Technology and Services Assistance Centre (TaSAC), which provides support and assistance to a number of areas across the university, including some basic Library transactions. The Library was encouraged to look at how the centre could be used for more types of Library queries, and conversely, how Library front line staff could resolve more technology queries. Opportunities to collaborate within the Information and Technology Directorate, as well as with other areas of the university, were pursued wherever possible. This was partly to improve our business processes to reduce duplication of activity, and to streamline access to services and support for students and staff. As such, the Library sought out opportunities to cooperate with areas where these aims formed common bases for "collaborative advantage" (Huxham & Vangen, 2005, p. 5).
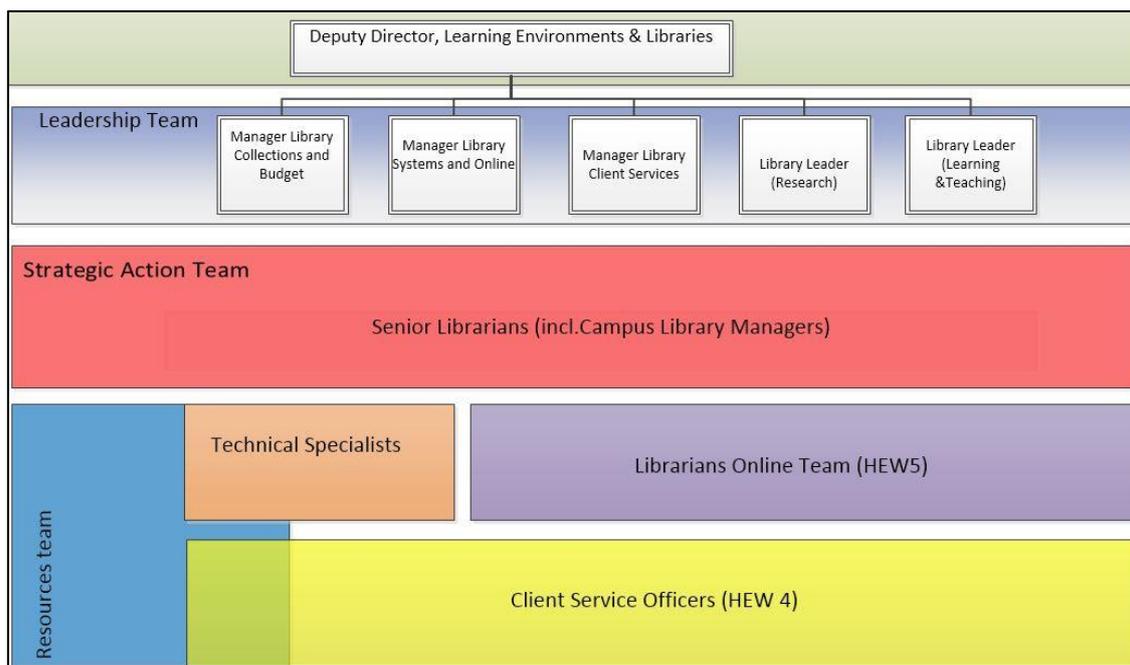
Figure 2: Current Library organisational structure

Study skills support

As in most academic libraries, resources to support information literacy instruction and academic skills are a combination of online text and multimedia products, in line with the need for the flexibility of online materials to support increasing blended learning (New Media Consortium, 2016, p. 18). SpringShare LibGuides was the main platform for this material and the content was a mixture of generic information literacy instruction and discipline and/or specific assessment related help. Each liaison librarian was responsible for the creation and maintenance of guides within their discipline area, however by 2015 the number of guides had grown beyond 400 and contained many versions of the same content, with no "single source of truth", or one authoritative/master version. Maintenance of this number of guides was unsustainable and prompted a review of all learning and teaching support material produced by the Library. The review identified the main concepts of generic information literacy instruction and selected the best content from within the current guides to form the basis of a site within the university's learning management system, Moodle. Learning objects were also reviewed using best practice standards and currency of content and earmarked for the Moodle site.

Guides which had been created for specific units or assessment items, containing multiple versions of the same content, were withdrawn after consultation with academics, and communications were put in place to direct students and academics to the new Moodle site and revised discipline guides. The Moodle site was designed using an adapted version of the Society of College, National and University Libraries' Seven Pillars of Information Literacy Core Model for Higher Education (SCONUL, 2011). This model was chosen to form the framework of the Library's information literacy plan because it defines attitudes and behaviours (i.e. understandings) as well as core skills and competencies (i.e. abilities) associated with the seven pillars of information literacy development: identify; scope; plan; gather; evaluate; manage; and present. Each section of the Moodle site identifies the key skills associated with each pillar. Each section is then broken down into individual pages which provide instructions for learning these skills. Videos and links to learning objects are embedded into the text to create an interactive environment. For example, figures 3-5 show the progression from the SCONUL framework to a skills breakdown within each pillar, to the generic instructional material that supports the required skills. A page in each section has also been designed for academics, which contains links to relevant learning objects, guides or other relevant instructional material, which they can copy and embed at appropriate locations within their units' content or assessment outlines.
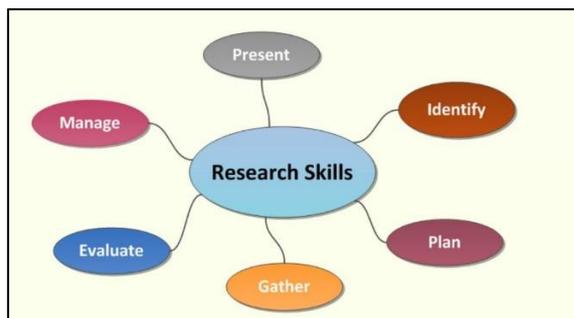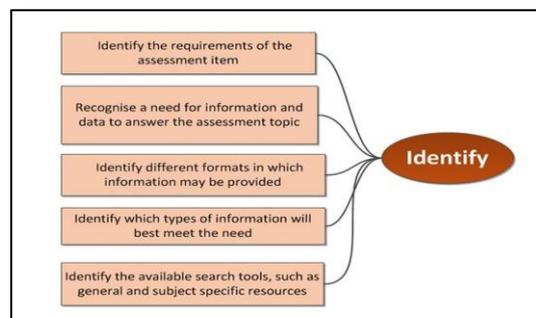
Figure 3: Moodle site overview

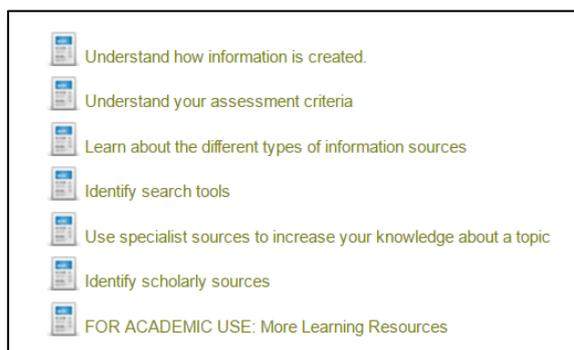Figure 4: Expanded pillar identifying skills

Figure 5: Links to content

Collaboration with the university's Academic Learning Centre (ALC) also played a significant role in the design of this site. Two of the pillars of the SCONUL model are Manage and Present, which align closely with the support activities of the ALC. To provide students with a one-stop shop for support, librarians structured these two sections to provide links to content and support materials located on the ALC website. Doing this eliminated duplication of effort across the Library and ALC, and ensured that content was always current. In addition to this collaborative approach, the Library has worked with the university's Learning and Teaching Pro Vice Chancellor and his team to raise awareness of the Library's new approach: building support materials within the learning management system to better integrate with unit sites. Today the Moodle site is recognised as a valuable resource to students; all students are automatically enrolled in the site which then appears on their list of units each term, and all unit sites include a link to the Library's Moodle site as a key support resource.

Skills for Tertiary Education Preparatory Studies (STEPS) is an enabling course that provides a pathway for people requiring additional support to enter higher education. Students who undertake this enabling course are often returning to study after some time, or require additional academic skills to be ready to undertake their first degree (CQUniversity Australia, 2017). The course is currently offered on campus and online. The Library has had a long history of collaboration with teaching staff to embed information literacy into the curriculum. Over 16 years, the Library's involvement in the course has adapted to match changes to the course content, the introduction of distance students and the move to Moodle as a delivery platform. When traditional face-to-face delivery of five information literacy sessions each term by librarians became unsustainable, the online environment opened up new opportunities for embedding library support materials directly into the course content. A hard copy information literacy guide was converted to a Moodle book containing enhanced and interactive content. Students are directed to the material during a research module in their course.

The Moodle book is now used across all STEPS units and has been adopted by a number of units within the School of Education and the Arts. In 2016 this innovative collaboration was awarded a Vice-Chancellor's Award for Good Practice in Learning and Teaching. The award recognised the development of the information literacy component of the STEPS program through an innovative approach to the design of curricula and resources.

The ALC provides students with advice, support and resources related to academic communication, mathematics, statistics, science, and computing requirements of university study. ALC staff are located at each campus and are available by appointment for face-to-face sessions with on-campus students and via video conference with distance students. Students are also able to submit assignment tasks for review. The ALC is also responsible for reviewing and updating the university's referencing guides and provide referencing advice. In early 2016 the ALC was approached by both the business and nursing discipline areas expressing concerns that their students appeared to be struggling with basic academic skills. The result of this collaboration was an academic skills sub-unit embedded within an introductory unit for both courses.

The Library's relationship with the ALC has always been strong and as a result, we were invited to contribute content to the sub-unit. By the end of 2016, the Library had a presence in four first year units. By leveraging existing support material in LibGuides, the Library's Moodle site, and direct access to librarian support as needed via the "Ask a Librarian" service, we were able to sustain this initiative without creating new content or duplicating effort. Rather than expending valuable staff resources preparing and delivering non-compulsory (often poorly attended) face-to-face sessions, the Library was able to provide point-of-need assistance within the context of compulsory unit assessment.

Investigating and implementing innovative ways to leverage existing support materials, delivery platforms, a lean staffing profile and long-term relationships with other support areas of the university has been the driver behind many of the changes implemented by the Library over the past two years. The Library's frequently asked questions (FAQs) dataset, delivered on LibAnswers, now incorporates information technology, academic skills and referencing FAQs. Students now have a single point of access for these types of queries, which can be found via keyword search or by browsing topics. The Library is currently working with the university's web team to scrape LibAnswers and include the content in the university-wide search. In this way, quick help and advice will be surfaced at the top level of the university's website rather than being hidden under multiple layers of content within specific service areas. This will improve the student experience by reducing the need to check multiple places for help.

The Moodle site and the FAQs form part of the Library's online self-service support options, outlined in figure 6. All of these options have been developed or significantly reviewed in the past year, to ensure students and staff can access as much support as possible – anywhere, anytime. Online room bookings and registration for the Ask a Librarian service are made using LibCal. Ask a Librarian is a service for individuals or small groups to book a 30-minute session with a librarian for research assistance. Each campus offers multiple face-to-face and online appointments per week during term. The online appointments are delivered using Zoom, allowing students a range of times to get in-depth librarian assistance, regardless of location. Participants are then sent a survey, built in LibGuides, to gather quick feedback on the usefulness of the session. Feedback to date has indicated that the sessions are useful, and that the technology is easy to use.
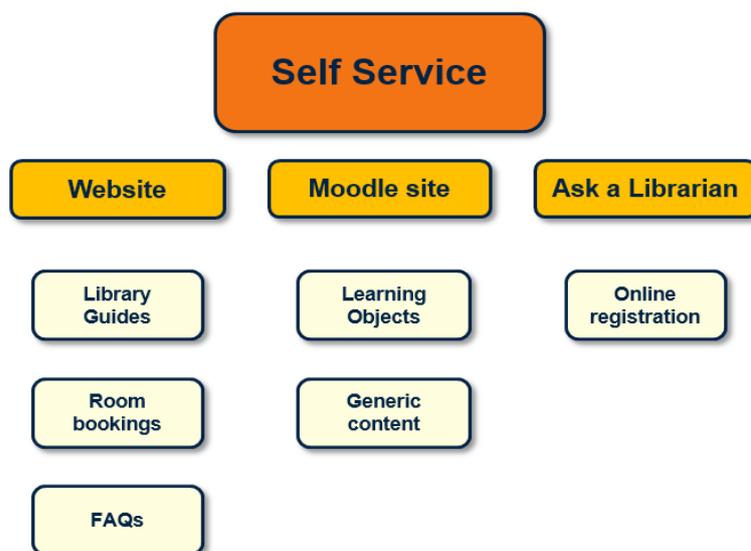
Figure 6: Online self-service support materials

Another example of partnering with other areas of the university to create successful study support initiatives is the "Get it together event" concept. Inspired by the "Long Night against Procrastination" ("die lange Nacht der aufgeschobenen Hausarbeiten") events originally held in German universities (Datig & Herkner, 2014), all campus libraries have successfully organised and hosted one or two evenings each term since 2015. Students can seek the help of academic and professional staff across discipline and student support areas, attend short workshops, or just come in and use the facilities to get started, finish or start thinking about their assessment items in a collaborative atmosphere. The active participation of ALC staff has been crucial to the success of these events. Academic and information literacy skills workshops presented by staff at these events have received excellent feedback, as shown by this sample comment from a student: "I learned more in that half hour than in two years of trying to work it out for myself."

Combined service model

Collaboration between the Library and IT sections of the Information and Technology Directorate has enabled the development of a combined service model to streamline access to library and technology support for students and staff (figure 7). This model incorporates multiple tiers of support: level 0, or self-service; level 1 for basic support; level 2 for more advanced librarian support; and level 3 where requests for more specialised assistance are escalated. This service model, with fewer, clearer points for accessing help, has benefitted clients by taking the guesswork out of who to contact for library or technology assistance.
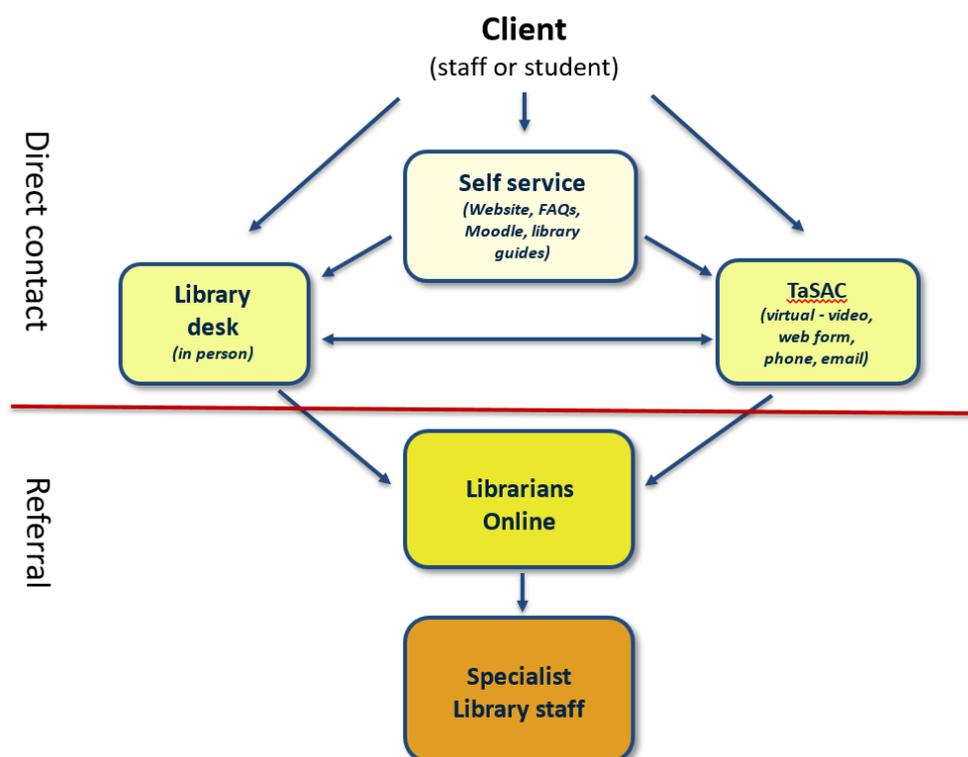

Figure 7: CQUniversity Library service model

The level 1 basic support was increased to facilitate more "fix at first contact", allowing staff and students to get a quick resolution when first contacting the Library or TaSAC. This included increasing the searching skills of TaSAC staff and the client service officers working at the front desks of the campus libraries, to allow them to provide more help to students "getting started" searching for information. Training was based on the materials in the Library's Moodle site, and guidelines were agreed with the Librarians Online Team about when to refer queries to them. There was also cross-training to begin aligning the staff at the front desks of the campus libraries with TaSAC staff. This has enabled library desks to be the first point of contact for library and technology support in person, while TaSAC is the virtual equivalent for support via phone,

video call, web form, and email. After running a mini-project to identify key areas for cross-training, developing support materials, and running training sessions, the number of referrals from Library desks to TaSAC and vice versa have dropped, and students and staff have been able to have more basic issues resolved on the spot. For example, client service officers can now unlock student and staff IT accounts and reset passwords – these issues were previously one of the largest source of referrals from library desks to TaSAC.

A level 2 team was also developed, composed of librarians from six campuses around Australia. They were set up as an escalation point for queries requiring the assistance of a librarian. These queries are often traditional reference questions from students or requests for resources from staff. This made much more effective use of the librarian skills of the Librarians Online Team, as they were not just assisting students on their own campus, but were now able to help students across all campuses, as well as the significant proportion of students studying via distance. Importantly, this has also meant that students who don't study on a campus with a librarian on staff are now able to access the same level of support as those who do. Level 3 support is made up of small specialist teams of senior librarians and resources and access staff, for the Librarians Online Team to escalate specialist queries that they are unable to resolve themselves.

Library staff were added to the IT service management system used by TaSAC and other ICT teams, SysAid. SysAid is used to capture requests via email and web form, and details are manually entered for video and phone calls. Using SysAid, requests can be tracked and assigned to the correct team, and statistics can also be obtained for reporting purposes. Client service officers have begun to use SysAid to refer queries received at the desk, but are continuing to use RefAnalytics for entering details of queries resolved on the spot. This team has not yet transitioned completely to SysAid because the RefAnalytics form for entering query details is quicker and easier to use than the current SysAid form. A simple entry form is being developed for client services officers to move completely from RefAnalytics to SysAid, which will allow SysAid to capture all transactions and give a more accurate overview of client support activities across the Information and Technology Directorate.

Video service kiosks

Given the large number of CQUniversity campuses and study centres around Australia, not all sites have a librarian physically present and available to assist students face-to-face. To ensure students have consistent access to library support, librarians must support multiple campuses. To improve the experience of accessing help from any campus, and make it feel as much like a face-to-face interaction as possible, video service kiosks were first trialled in three locations, then rolled out to all campuses in 2016. Cisco DX80 units were set up with an app (developed in-house) with a simple interface, presenting users with one button on a touchscreen which connects them directly to TaSAC. Video calls were integrated into the existing TaSAC phone queue using Cisco Finesse, and staff use video phones or Cisco Jabber on their computers to answer calls. Once connected, users can share their screen. This allows clients to connect their laptop to share their screen, allowing quicker and easier troubleshooting. TaSAC staff can also share their screen to demonstrate how to perform a task. Although take-up of the video service kiosks has been slow, with some students saying they are "too shy" to use video, those who do use it are impressed by the experience. Some indicative comments include:
* "thrilled that I could actually connect my laptop and share my screen via the video kiosk"
* "I like the fact that you can see the person – it gives a more personal touch."

TaSAC staff have also found that video calls are more efficient than phone calls – they can communicate more effectively with students, particularly with international students where there are often language barriers, and they can resolve technology issues much more quickly when they can see the client's device. Another benefit is added security; video allows visual identification of students, rather than needing to ask a series of security questions over the phone.

The Librarians Online Team were set up as a virtual call centre following the same model as TaSAC, allowing TaSAC to transfer more complex or specialist Library questions to the team via phone or video. The dispersed librarians were set up with the necessary technology: Cisco Jabber on their computers and Cisco Finesse to enable a queue for both video and phone calls. They were trained in using the technology to support clients via video, including sharing their screens to demonstrate searching and talking clients through sharing their own screen if using a laptop. Feedback from the librarians is that they, like TaSAC

staff, have found it easier to assist students and staff using video, particularly being able to demonstrate how to search databases.

A limitation of the video service kiosks is that they are only available on campuses and in study centres, so are not available to many distance students. Distance students can access help via phone, web form, or email, and are encouraged to book Ask a Librarian sessions, where the Zoom platform allows screen sharing and the other benefits of communicating via video. A future development for the video service kiosks will be to add other self-service options, such as allowing access to FAQs and guides, and booking study rooms and Ask a Librarian sessions, as well as the option to speak to a staff member for library or technology assistance.

Building virtual teams

As with any change, it was managing the cultural change and communication that was vital to building the virtual teams. The Library had experienced success with using a new SharePoint team site for communication, with a mix of blog posts for sharing updates and information, and a newsfeed to act as a "virtual tearoom" social space to allow staff to share photos, tips, and ideas, that might otherwise have been shared over lunch or morning tea, if staff were in the same location. The blog allows comments on posts to ask questions or add information, and the tearoom newsfeed allows "likes" and comments. All staff were actively encouraged to participate, with an expectation articulated that each staff member will contribute at least one blog or tearoom post per month, and that all staff will check the team site daily, and be aware of any changes to policy or procedure announced via the blog.

The Library also had a tradition of fortnightly "reports" on Friday mornings, which all staff could join via video conference or from their desks via Jabber. This would also be a mix of updates and key messages, and where all staff were invited to ask questions and share "magic moments" and "epic fails". This had already been valuable in building a "one Library" attitude among staff on multiple campuses and integrating staff from merged organisations. A weakness had been that, with many staff working part time, and the need for client service officers to leave the meeting to assist at the desk, many staff missed these meetings. Last year, the Library collaborated with the Teaching Technology Support team to start recording these video conference meetings and share them using Echo360. Links to the recordings are then shared via the team blog. This has removed the need for follow-up blog posts or emails, and all Library staff have access to the same information.

The staff working at the Library desks, previously called administration officers, were renamed client service officers with accompanying updated position descriptions, following extensive consultation. These changes were made to reinforce the emphasis on client service. The client service officers travelled to the main campus in Rockhampton to work together in person for the first time. They participated in training workshops: to build technology troubleshooting skills (with training provided by TaSAC staff); to agree on consistent levels of support they would all now be able to provide with library and technology queries; and to come together as a team. During the year, they were also helped to create a dedicated SharePoint site for communication and knowledge sharing and encouraged to meet via Jabber, call each other as needed, and "buddy up" when learning new skills. Meeting in person, and explicitly being encouraged to continue to communicate afterwards (and supported with the technological tools to do so), was instrumental in building a team from a geographically dispersed group reporting to different campus library managers, that had not previously had much direct contact.

This model of virtual team building was also followed when building the Librarians Online Team. They travelled to the Rockhampton campus to participate in some training, which was also an opportunity to meet in person, and to meet the TaSAC team face-to-face. They were also assisted in developing a dedicated SharePoint site for communication and knowledge sharing, and most were involved in projects to review and refresh discipline resource guides in LibGuides and FAQs in LibAnswers. A new position, Librarians Online coordinator, was created, with responsibility for organising the team roster, encouraging communication and knowledge sharing within the team, collecting and reporting on team statistics, and liaising with other teams. Having a coordinator has helped to add to the cohesion of the team.

Lessons learnt and future direction

Collaboration requires time, energy, and commitment from all parties. The initiatives that have ultimately enjoyed the most success have been those that have started small, with pilot projects. These pilot projects have allowed the Library to gauge success or demand, and to make adjustments before rolling out across the university. Additional benefits have come from forming small cross-departmental project teams to deliver the pilot projects, as these teams have then become models for wider cooperation.

Clear communication is vital – there were many occasions in moving towards a combined Library and IT service model when it was discovered that one or more teams had not been included in policy or procedure updates. To avoid these gaps, teams have started inviting representatives of other teams to their meetings. This year there are plans to make this process more systematic, with regular meetings between team leads to share information and address issues. A combined Information and Technology Directorate SharePoint team site is also being investigated; the Library's team site is an effective internal communication tool, but does not include TaSAC or other IT staff.

Working together to provide consistent services and support across multiple sites, with widely dispersed team members, was a challenge. The lack of an effective knowledge base, accessible and used by all, is an acknowledged weakness, as each team keeps their knowledge in different places, and shares that knowledge in different ways. Following two unsuccessful attempts to initiate and maintain a combined Information and Technology Directorate knowledge base in 2016, this is now a key focus area for 2017. This time there will be an emphasis on building a culture of knowledge-centred support throughout the directorate as a first step to making sharing and using knowledge an integral part of the job, rather than an additional task to be completed when time permits.

Following the principle of starting small and scaling up, the Library will be building on these successes. Using the relationships built through collaborating with the ALC and STEPS teams, the Library will be leading an initiative to create a more unified approach to study skills support for students across the university. This will include streamlining online support materials and piloting the successful Ask a Librarian model of providing regular, bookable, in-person and online help sessions in other student support areas.

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