Communication, Collaboration and Enhancing the Learning Experience: Developing a Collaborative Virtual Enquiry Service in University Libraries in the North of England

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Introduction

Using the case study of developing a collaborative out-of-hours virtual enquiry service (VES), this paper explores the importance of communication and collaboration in enhancing student learning. Set against the context of a rapidly changing UK higher education sector, the paper considers both the benefits and challenges of collaboration, alongside the real and potential benefits for the student experience and the role of the library in enhancing learning.

The paper is structured as follows:

- The National Higher Education Context

- Academic Libraries and Learning

- A Review of Previous Activity in Shared and Collaborative Enquiry Services

- Enhancing the Learning Experience: Developing a Collaborative Virtual Enquiry Service

- Project Outcomes

- Communication And Collaboration In Service Development: Benefits And Challenges

- Lessons Learned and Next Steps

The National Higher Education Context

The UK higher education sector is currently in a state of flux. The introduction of student fees in the 1990s as recommended by Dearing (1997) and the ensuing further reforms after the Higher Education Reform Act 2004 (see, for example: Department for Business, Innovation and Skills 2009, 2011; Browne 2010), with ever higher fee limits, together with the introduction of new types of higher education providers, has changed the higher education landscape. There is a perceived increase in marketization of the sector and commodification of the undergraduate student experience, linked to an increasingly competitive culture between institutions. The recent Green Paper (Department for Business, Innovation and Skills 2015), focuses on, amongst other issues, measuring teaching excellence which will link to tuition fees leading to further differentiation within the sector.

However, within a culture of financial retrenchment, the idea of shared services in the higher education sector has also gained currency as a way of reducing expenditure and improving service delivery to the end user (see, for example, Universities UK 2011, 2015). A JISC study noted that "there is little overt enthusiasm for the introduction of shared services…administrative services are too important to institutions to take significant risk: no manager is going to gamble the institution in shared services" (Duke and Jordan, 2008, p.23) Rothwell and Herbert (2015) note that the changing financial climate may be responsible for the increased uptake in shared services since then. They summarise three broad types of shared services in HE based on the work of Clark, Ferrell and Hopkins (2011). These are: top down or bottom up; closeness (geographical or philosophical (mission groups) or technological); 'I do it, we do it you do it'. How the Northern Collaboration has exploited geographical closeness combined with a technological solution to develop a shared service is explored later in this article.

Technology has obviously had a critical impact on higher education and in the UK the Committee of Enquiry into the Changing Learner Experience (2009) was convened to assess its impact on future policy development.   Information and Communications Technology, along with procurement and human resources services, are cited by JISC (2009) as the most usual shared services. However, this is very much expressed in terms of shared 'back office' functions rather than an exploration of how this could be used to enhance the student learning experience in a digital world.

Enhancing the student experience has been a key focus of funding councils, the Quality Assurance Agency and the Higher Education Academy in the UK. The Ramsden Report (2008) highlighted the importance of students as partners in developing their own learning experience, which is a 'joint responsibility' between them and their institution and in many universities students are now involved in formal and informal decision making and planning. However, the meaning of the student experience has changed under the current tuition fee regime, as Temple and Callendar (2015) point out, with students appearing to have "become customers rather than partners in the academic enterprise". In this context the National Student Survey "gathers students' opinions on the quality of their courses" (HEFCE, n.d.) and is used as a benchmarking shorthand for the quality of the overall student experience and the current Green Paper aims to create an Office for Students as a 'new sector regulator and student champion' (Department for Business, Innovation and Skills, 2015). With this changing student perception of their role, universities will need to be clear about their offer as they try to attract prospective 'customers' and retain 'satisfaction' in an increasingly differentiated marketplace.

A holistic approach to learning and the student experience is now commonplace in UK institutions with changes both in organisational structure such as super-converged services

(Melling and Weaver, 2013) or in service delivery such as the one stop shop approach. Similar debates have occurred in the US and elsewhere with the Learning Reconsidered report (Keeling, 2004) articulating that effective student learning involves a holistic approach with collaboration from across the institution.

Academic Libraries and Learning

In the UK current prevailing pedagogical practice is predominantly constructivist, with learners constructing knowledge based upon their current or past knowledge and experience (Light and Cox, 2001).The (UK) Higher Education Academy has noted "The need to develop new ways of learning has become a live issue in HE, largely linked with the demand for increased flexibility of pace, place and mode of delivery" (HEA,2015) and its Flexible Pedagogies project aims to address these issues and provide examples of effective pedagogies that will empower learners.

In this context academic Libraries are central to the learning, teaching and research enterprise of their institutions. Brophy (2005) emphasised the key role: "Academic libraries are here to enable and enhance learning in all its forms - whether it be the learning of a first year undergraduate coming to terms with what is meant by higher education or the learning of a Nobel Prize winning scientist seeking to push forwards the frontiers of her discipline" In the US Lankes (2011) has stated that "the mission of librarians is to improve society through facilitating knowledge creation in their communities". Too often in the past library services and facilities have been designed to optimise delivery of library operations rather than with the learner at the centre (Bennett 2015). Much has been written on library buildings as ideal places for John Seely Brown's learning conversations (Brown and Duguid 2000) and this can be applied to library services as a whole. Laurillard (2001) developed the

Conversational Framework as an approach to learning and teaching that is "an iterative dialogue between teacher and students that operates on two levels: the discursive, theoretical, conceptual level and the active, practical, experiential level".   We would argue that academic librarians have a key role to play in the Framework as they become more embedded in learning and teaching delivery. Pan et al (2004), inspired by the Boyer report in the United States (Boyer 1998), write of a Learning Ecosystem "cultivated between student and instructor; student and librarian; and instructor and librarian." In this context, library help services, whether face to face, or virtual are key elements of an ecosystem and support for learners rather purely a library enquiry service.

In the UK and elsewhere, students are viewed as key partners in the development of their learning experience, whether as customer / consumer (see for example, Department for Business Innovation and Skills, 2015) or as co-producer (Neary and Winn, 2009). Collaboration for enabling and supporting learning needs to build upon institutional experience of this 'students as partners' approach.

Shared services to directly support student learning across institutions in the UK are less well developed. One example within the higher education sector is Falmouth Exeter Plus, which is the "service delivery partner" of Falmouth University (Falmouth) and the University of Exeter (UoE). It aims to "deliver shared services and facilities for UoE and Falmouth in Cornwall underpinned by close collaboration with FXU, the combined students' union for Falmouth and UoE" (Falmouth Exeter Plus, n.d.). Its current portfolio of services includes the Library, Student Services, IT services and Academic Skills.   A cross- sectoral example of shared services to enable and support learning is The Hive, a combined University and Public library and archive service developed in partnership between Worcestershire County Council and the University of Worcester. Both these examples involve close working relationships between

two organisations. National collaboration between higher education libraries has so far been focussed on the SCONUL Access reciprocal borrowing scheme.

Previous Developments in Shared and Collaborative Enquiry Services

This paper offers as a case study the development of a shared enquiry service in the Northern Collaboration a group of university libraries in the North of England, UK (The Northern Collaboration, n.d.-a). Before commencing the project, a literature review was undertaken to establish the extent of previous activity in this space and whether there were lessons to be learned of value to the Northern Collaboration.

The literature revealed considerable activity in the use of chat and instant messaging by individual libraries, particularly in the USA (see for example Bicknell-Holmes, 2008). In the UK, the Open University was one of the leaders in online digital reference (Payne & Bradbury, 2002). A virtual enquiry project at Edinburgh Napier University (Barry, Bedoya, Groom & Patterson, 2009) provided a useful overview of the use of virtual reference services (defined as the use of instant messaging or webchat for enquiries, which allow users to interact with library staff in real time) in academic libraries.

In terms of collaborative reference services, a 24/7 reference tool was developed by Coffman and McGlamery (Putting virtual reference on the map, 2002) which later became the OCLC 24/7 co-operative reference service.   Recent case studies of collaborative virtual reference in academic libraries are fairly infrequent (Johnson (2013) mentions the discontinuation of several institutional and collaborative virtual reference services in the US in the past ten years) but include those of New Zealand, where a consortium of four university libraries developed "a toolkit for providing virtual reference through instant

messaging" (Clements 2008), and the AskColorado/AskAcademic Virtual Reference Cooperative in the US: "one of only a dozen or so states to ever offer statewide online reference service to patrons via 'cooperative reference service'." (Johnson, 2013). In the UK, as mentioned elsewhere in this article, collaborative reference has been developed by the public library sector (Berube 2003) but has not been attempted before by academic libraries.

Enhancing the Learning Experience: Developing a Collaborative Virtual Enquiry Service

Background to the Project

The project began life as one of the strands of activity emanating from a UK Higher Education Academy Change Academy programme called COLLABORATE in 2011. The purpose of COLLABORATE was to explore the potential for University Library Services in the North of England to work together on developing new services. The outcome was the Northern Collaboration. This is an organisation comprising 25 University libraries in Northern England, a region of the UK spanning from the Scottish border in the North, to Merseyside in the West and Humberside in the East. One of the first projects which library directors approved for progression was the shared Virtual Enquiry Service (VES).

A project group of ten institutions undertook the next steps which comprised a literature review, project scoping, agreement on definitions of enquiries, data collection and analysis, and consideration of business models. The literature review (see above) confirmed that there was no collaborative enquiry service for academic libraries in the UK, and that there was merit in further exploration of the concept. The scoping exercise took place over several months, and was informed by two periods of data collection. The data captured the enquiry services provided in each library, including the format (face-to-face, phone, email,

chat), hours of delivery, level of staff providing the service (professionally qualified or assistant), the types of enquiries (e.g. reference enquiries, IT enquiries, directional) and costs of service provision. After analysis it became clear that the range and costs of services varied significantly between institutions. This was unsurprising, given the variety of institutions represented in the project group, which ranged from large research-intensive universities to small, teaching-led institutions. The average annual cost of enquiry services per library was around £70,000, representing a sizeable proportion of the library budget.

Through an iterative process, the project scope was refined to an out-of-hours library enquiries service. 'Out-of-hours' was defined as the periods outside the normal working day when staff were not available to answer enquiries, namely evenings, overnight, weekends and bank holidays. One of the potential business models was to establish our own internal shared service, but given that external organisations were already providing similar services, it was agreed to investigate these first. Subsequently it was agreed to progress a partnership with OCLC, the American-based co-operative, well known for its work on bibliographic data and also a provider of a collaborative enquiry service through its QuestionPoint software. Examples of deployment of this 24/7 Reference Co-operative may be found in many academic libraries in the USA and globally, and also in the UK public library services where it is branded 'Enquire' (People's Network, 2009). The primary medium for both services is web chat, though enquiries via email are also offered. Web chat represented a new enquiry medium for many of the libraries in the Northern Collaboration project, and one which informal research suggested would be popular with students.   After endorsement by the library directors, a 15 month pilot with OCLC was implemented, commencing in May 2013.

Aims and Objectives

To recap, what emerged from the diversity of institutions among the Northern Collaboration membership was a consensus around the need for an effective 'out-of-hours' enquiry service, primarily to cover the periods when local staff were not able to answer enquiries: evenings, overnight, weekends and bank holidays. There was no appetite for replacing the services provided during the normal working week.

Some routine, procedural library enquiries could already be accommodated by NorMAN, an out-of-hours IT enquiry service available to further and higher education institutions (NorMAN, 2014). The priority for the VES project was therefore to satisfy the 'reference' enquiries, incorporating information resources, subject and referencing enquiries.

The overall aim of the project was to enhance student learning and the student experience, with specific objectives to:

- Pilot and evaluate a cost-effective, real-time out-of-hours enquiry service, which was sufficiently flexible to support diverse opening hours and organisational models.
- Explore the benefits and challenges of working collaboratively, both within the Northern Collaboration and with an external partner

It took over a year to achieve this level of clarification about the project as it was important to attain consensus amongst Northern Collaboration directors who were effectively the project sponsors.

The Pilot

As noted above, the OCLC 24/7 Reference Cooperative was well established in the USA. The principle on which it operates is that enquiries may be handled by a librarian from any member of the co-operative. No specific training is required of these librarians, as they all

have access to 'policy pages' (information supplied by participating libraries about their policies, procedures and information resources). Using a combination of the policy pages and reference interview skills, the librarians are able to answer the majority of enquiries. Because of the time difference between the UK and the USA, the majority of out-of-hours UK enquiries are picked up by colleagues in the western states of the USA. Within the UK, two Universities subscribed as individual members to the global co-operative but prior to the VES pilot there was no consortial academic library membership in the UK. For the pilot we effectively created a new business model in which each institution paid a subscription to purchase an out-of-hours enquiry service, with no requirement to supply staff from their own institution to answer enquiries from other member libraries. Subscriptions were differentiated according to JISC bands, and ranged from approximately £1500 to £3000 per year.

Seven institutions took part in the pilot, representing diverse mission groups, size and organizational structures: some libraries operated as stand-alone directorates whereas others were part of converged services with Information Technology (IT) or Student Services. Start-up involved creating the 'policy page' (see above) and varying degrees of liaison with relevant departments, including IT and Marketing, to enable the QuestionPoint 'chat' widget on each institution's web pages. Support for the start-up was provided by the QuestionPoint Product Manager, but increasingly as the pilot progressed, the operational leads within each institution created a community of practice, (Wenger, 1998) in which they learned from each other. Each institution was able to 'switch on' the service at different times in the evening to meet its own service delivery requirements.

Evaluation

The pilot was rigorously evaluated. Usage statistics were analysed on an on-going basis throughout the pilot; user satisfaction with the service was recorded; the quality of responses

to enquiries was evaluated by librarians; and each of the pilot institutions produced a case study, outlining the practical experience of delivering the service, the challenges, enablers and impact on the student experience. It is beyond the scope of this article to provide detailed analysis of the data; however readers may find the following overview useful.

The first significant usage of the service started in September 2013 once all pilot libraries were up and running. During the period September 2013 to May 2014, approximately 3000 enquiries were handled in total across all institutions. Figures 1 and 2 below show the variance between institutions, with the average per month ranging from 101 enquiries to 13. The criteria for success appeared to include: prior experience of student use of web chat; an effective promotional campaign to raise awareness; high visibility of the chat widget on web pages.

Table 1: Out-of-hours enquiries by institution

September 2013 – May 2014

| Name	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Total	Monthly average
University 1	8	10	24	12	13	12	10	18	10	117	13
University 2	26	26	30	29	19	27	30	33	45	914	102
University 3	6	20	16	12	14	11	6	22	23	130	14
University 4	19	36	27	29	29	20	11	30	14	215	24
University 5	11	19	13	14	17	9	4	20	13	249	28
University 6	24	24	38	21	24	19	175	105	145	575	64
University 7	44	77	83	49	56	81	108	131	122	751	83
Total Enquiries	**138**	**212**	**231**	**166**	**172**	**179**	**344**	**359**	**372**	**2951**	**47**

Figure 1: Graph showing out-of-hours enquiries by institution

September 2013 – May 2014
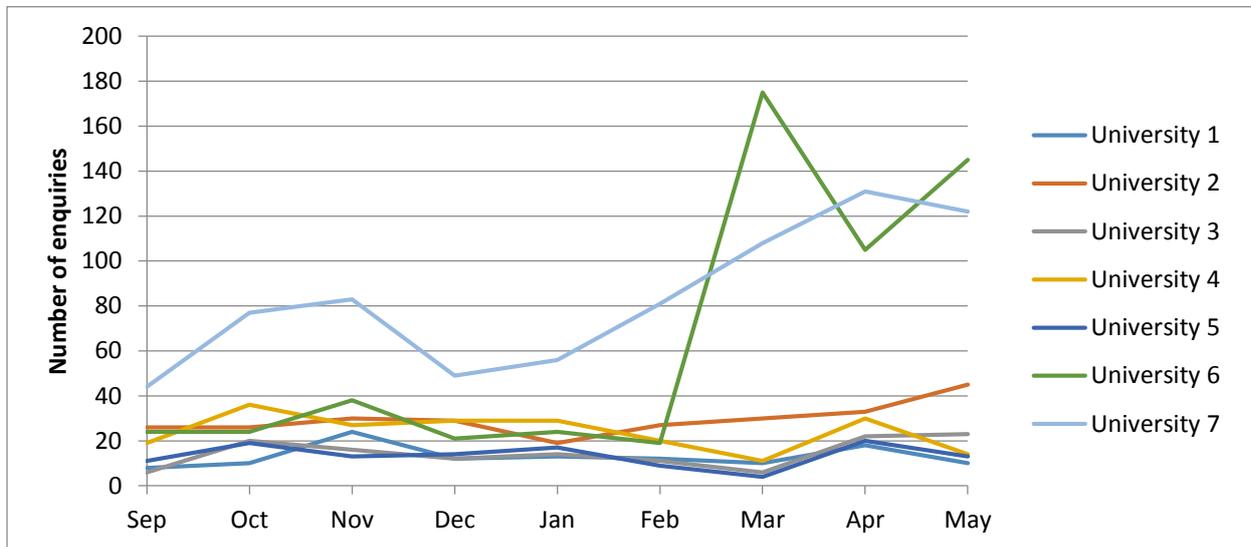
The majority of Monday to Friday enquiries were received between 1700 to 23.59 hours and 0700 to 08.59 hours (see Figure 3 below). Over the weekends, enquiries were distributed more evenly across the day and evenings.

Figure 2: Out-of-hours enquiries Monday to Friday by time of day September 2013 – May 2014
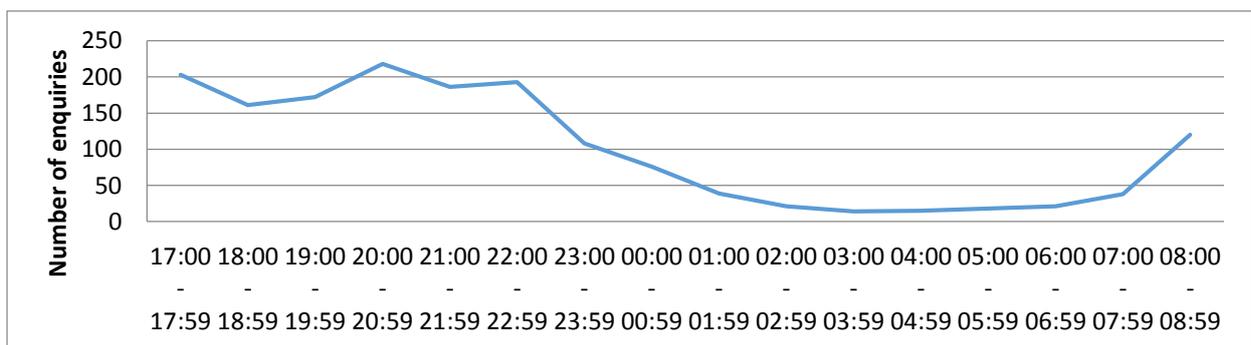
The types of enquiries were categorised into six areas in order to give sufficient granularity for data analysis. As noted above, the pilot was particularly interested in the reference

enquiry, namely those relating to information resources, referencing and subject enquiries. Analysis showed, not unexpectedly, that a high proportion of enquiries were procedural/directional or related to IT, but it was pleasing to note that nearly 40% of all enquiries were classified as reference. Enquiries were also analysed using the categories required for the annual SCONUL statistical return (SCONUL, 2015). Both sets of data are summarised in figures 4 and 5 below.

Figure 3: Out-of-hours enquiries analysed by type of enquiry (using VES categorisation of 6 enquiry types)
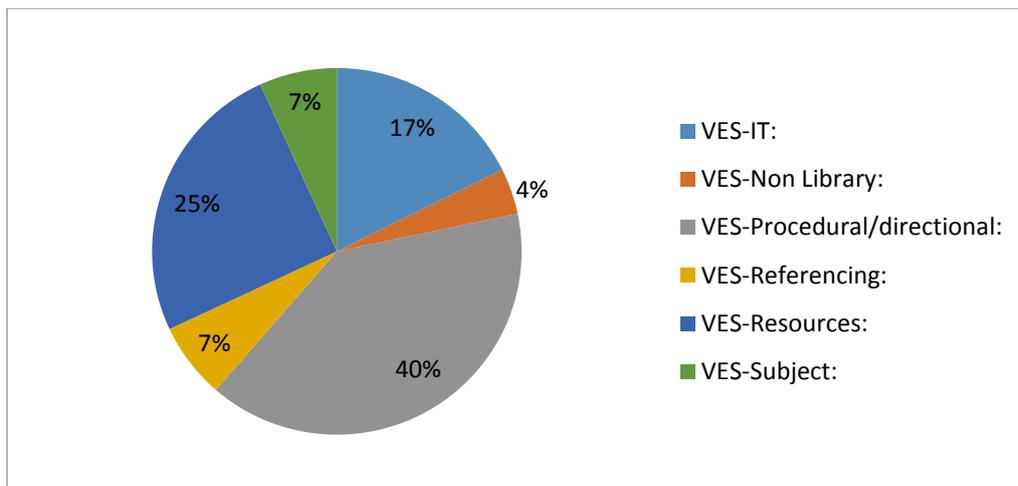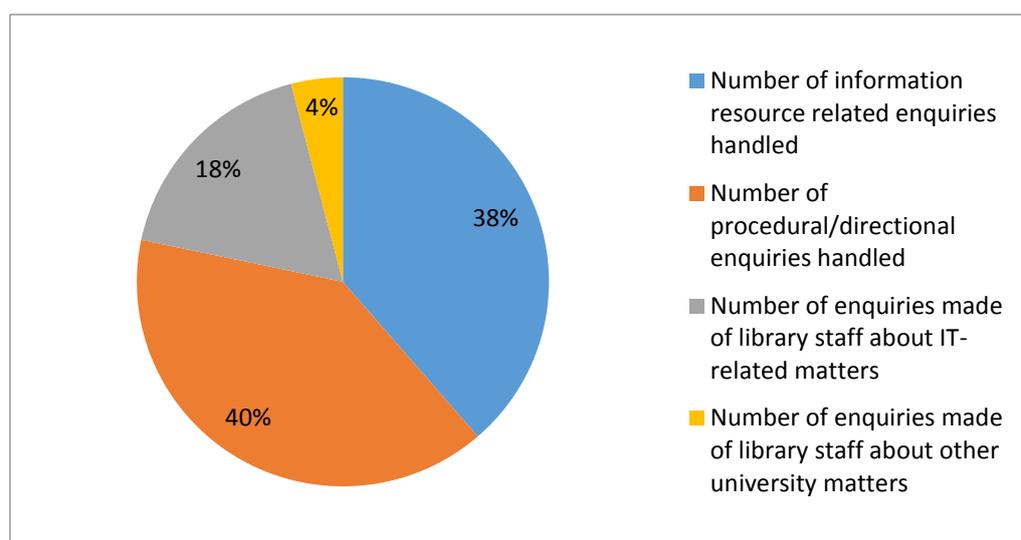
Figure 4: Out-of-hours enquiries analysed by type of enquiry (using SCONUL categorisation of 4 enquiry types)

The cost per enquiry was calculated by each pilot member and compared with the hypothetical costs of providing a service in-house, based on staffing grades they would expect to deploy in their library service to answer the same volume and types of enquiries. Actual costs varied from approximately £3 to £20 per enquiry, which compared to hypothetical costs of up to several hundred pounds per enquiry.

Project Outcomes

Clearly, the chief beneficiaries of an initiative like this were the service users. Although take-up for the service was relatively low, the experience of service users was positive. Student feedback, obtained through brief surveys, demonstrated that 75% of respondents were satisfied with the answer to their enquiry and 81% would use the service again. The following comments illustrate the value that students attached to the new service: "Excellent

help and would definitely use again. Thank you."; "Really, really helpful. I wish I'd found this facility 6 hours ago!!"   Feedback suggested the service was particularly valued by part-time students and distance learners who had limited opportunities to visit the physical campus.

The consensus amongst the pilot group was that the new out-of-hours enquiry service complemented other 24/7 services offered, namely 24/7 physical access to the library and 24/7 virtual access to online information resources. One University summarised the impact as follows: *"The VES provides a real enhancement to our students' experience, and a service which is available at the time the students need it."*

From a financial perspective there was clear evidence of value for money, enabling the provision of a 24/7 enquiry service at the relatively modest extra cost of a few thousand pounds per year.   To provide the equivalent service in-house would have been prohibitively expensive.

Feedback from senior institutional managers suggested that in addition to enhancing the student experience, the new service was perceived as offering a tangible and cost effective benefit of membership of the Northern Collaboration, and constructive engagement with the national shared services agenda. The VES also enabled a strong message that the institution provided a 24/7 professional library enquiry service.

For some institutions the introduction of a chat system involved a major cultural change in terms of student expectations and the nature of student support. Where there was a longstanding culture of using such services take-up was much higher.   Most institutions had a 'soft launch' of the new service, and in retrospect this resulted in low visibility of the

service. Although the cost of the service was relatively modest, it was recognised that effective publicity was essential in order to optimise investment.

An evaluation report was presented to the Northern Collaboration directors in July 2014. This incorporated a proposed business model and subscription levels, negotiated with OCLC, for rolling out the service to any members of the Northern Collaboration who wished to participate. Over the following year, the number of subscribing institutions increased to sixteen.

Communication and Collaboration: Benefits and Challenges for Service Development

This section considers the role of communication and collaboration in the development of the new out-of-hours enquiry service, and highlights both the challenges but also the significant benefits which ensued.

Communication and collaboration are inextricably linked, and both were key to the success of the VES. Communication may be defined as "the activity or process of expressing ideas and feelings or of giving people information" (Oxford Advanced Learners Dictionary, 2015a) whilst collaboration is "the act of working with another person or group of people to create or produce something" (Oxford Advanced Learners Dictionary, 2015b). To work effectively with other people or groups, there has to be exchange of information between all parties, an ability to articulate ideas, and a willingness to communicate regularly and openly.

Librarians tend to be good at this. Indeed, libraries across the world have a long tradition of collaboration. In the academic sector this may occur within the sector (Fraser, Shaw and

Ruston, 2013; Harrasi and Jabur, 2014; Melling and Weaver, 2010), across sectors (Lawton and Lawton, 2009; Lucas, 2013; Ullah, 2015), or with vendors and suppliers (Marks, 2005). Communication on the VES project occurred at many levels and for different purposes, as summarised below.

Table 2: Communication and collaboration activities apparent during service development

Level	Participants	Communication / collaboration activities
Macro - outside the Northern Collaboration	Library Directors; Senior OCLC personnel	Relationship development; negotiation; discussion; decision making; presentation
Regional – within the Northern Collaboration (all members)	Library Directors and Heads of Service	Discussion; report writing; evaluation; decision making
Regional pilot - between the sub-set of institutions that developed the service	Library operational leads; OCLC product manager; colleagues in university departments (IT, marketing)	Service implementation; development of good practice; shared evaluation; benchmarking quality of enquiry responses; mystery shopping
Local - within each institution that adopted the service	Reference service providers; service users (students, academic staff)	Service implementation; user feedback; continuous improvement

At the macro level, the Northern Collaboration developed an effective working relationship with OCLC. The overlap in the common purpose of the two organisations undoubtedly helped. Amongst the stated aims of the Northern Collaboration are the provision 'of a framework within which libraries can work together to improve the quality of services, to be more efficient, and to explore new models' (The Northern Collaboration, n.d.-b); whilst the OCLC mission as 'a global library cooperative is to provide shared technology services, original research and community programs for its membership and the library community at large.' (OCLC, 2015). Through regular communication and open discussion, the library directors and senior UK-based OCLC personnel in the UK developed a shared understanding of what the Northern Collaboration wished to achieve.

Engagement of the Northern Collaboration Directors Group was achieved through regular progress reports by the project leads, culminating in a comprehensive evaluation of the pilot. Whilst is was always understood that taking part in the VES was optional it was nevertheless extremely important to ensure that all Northern Collaboration directors were fully informed so that they were able to make appropriate decisions for their libraries. This level of engagement also gave the project substantial potential leverage, for example in making the case to OCLC for technical improvements to the product. Significant benefits of collaboration were achieved at an operational level, where a strong community of practice developed. Experiences were shared willingly, leading to the development of good practice in start-up, implementation, service promotion, training, evaluation, benchmarking and quality control. OCLC provided effective basic training and technical assistance with start-up, but the ways in which the project group worked together brought added value. One institution, for example, volunteered to undertake mystery shopping as a means of measuring the quality of responses. Another shared a particularly successful promotional campaign, which had resulted in a five-fold increase in service usage.

Collaboration with colleagues in other university departments was not always so effective. Enlisting the support of IT departments to prioritise the installation of the chat widget was sometimes problematic, due to competing priorities. These challenges were fortunately all resolved, but were a reminder of the need to engage all stakeholders in collaborative projects, early in the process, and to explain clearly the project rationale.

Engagement with students took place primarily after the launch of the pilot service, and has continued on an ongoing basis, through the online feedback forms which follow a web chat enquiry. There is potential for greater student involvement in the further development of the scheme.

A further important benefit of collaboration has been the opportunities afforded to library colleagues for professional development, particularly in terms of skills development, project working and in developing the professional community of practice alluded to above.

Lessons Learned and Next Steps

Rothwell and Herbert (2015) note that 'the UK already has plenty of strengths regarding shared services and collaborative working' and believe 'the future is global, collaborative and shared'.

By working collaboratively both with other institutions and with OCLC the Northern Collaboration has demonstrated the benefits in terms of student and learning experience and value for money. Amongst the key lessons learned were: the importance of setting clear objectives for the project; ensuring the involvement of key stakeholders within our departments across our institutions among Northern Collaboration directors; and communicating clearly with both students and stakeholders to ensure the success of the project and its successful operationalisation as a service. With regard to this last point publicity and promotion was critical to the visibility and uptake of the new service.

The effective communication of the two Northern Collaboration operational Project Leads with OCLC on technical and data analysis issues and with project team members in each institution was a further critical success factor.

Reflecting on the experience of working together during the project it is clear that building effective collaborative practices takes time. The pilot group of seven institutions worked

exceptionally well together but inevitably it takes longer to achieve consensus and to make decisions than with a project involving just one institution and this needs to be factored into the planning process.   In many senses the process of staff learning to be collaborative was as important as the outcome of the project.

In terms of staff learning and development the Shared VES has the potential to enable the further development of a community of practice which will continue to enhance communication and collaboration in service design and improvement. This relates to Sennett's dialogical model of co-operation which emphasises mutual exchange as an intrinsic good: the dialogical conversation "prospers through empathy, the sentiment of curiosity about who other people are in themselves" (2013).

The Northern Collaboration service now has sixteen members and is likely to extend to a national service co-ordinated by SCONUL, the UK university library directors' group. At the time of writing initial positive expressions of interest have been received from over 60% of UK higher education institutions.   There is potential to develop a variety of models to suit the needs of institutions and to more actively involve students as partners in this development.

David Watson (2015) stated that "if UK higher education is going to prosper in the contemporary world it is going to have to become messier, less precious, more flexible and significantly more co-operative." By offering clear enhancements to the student learning experience, collaborative development opportunities for our staff and financial benefits to our institutions the Northern Collaboration Shared Virtual Enquiry Service is a small step towards this goal.

Acknowledgements

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