Revisiting the Subject Librarian:
A Study of English, Law and Chemistry

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ABSTRACT

The future of subject librarianship is being challenged by technological advances and funding pressures. Questionnaires were used to collect data about the roles, relationships and competencies of 32 subject/liaison librarians supporting three disciplines in ten UK universities. The survey showed that postholders were undertaking a wide range of activities, with academic liaison and information literacy teaching as central tasks. They had a variety of job titles and their roles demanded pedagogical and interpersonal abilities to complement their professional and technical skillsets. The study confirmed predictions of closer collaboration with academic colleagues and increased involvement in teaching. Communication is a key area, but formal mechanisms are less important than a proactive style and personal approach. Comparisons between diverse disciplines and institutional types found more similarities than differences, but revealed some distinctive features in the staffing and delivery of subject support for Law and differences of emphasis between old and new universities.

KEYWORDS: academic libraries; higher education; information specialists; liaison librarians; subject librarians; university libraries.

INTRODUCTION

The role of subject librarians is a key issue in UK universities at a time when financial pressures are causing many institutions to review library structures and staffing levels. A decade ago, Heseltine (1995) predicted the demise of subject librarians as learning support services converged, suggesting functional specialists would gain ascendancy over librarians providing a range of services to particular user communities. The University of Bangor recently exemplified Heseltine's prediction in an extreme fashion, in a consultation paper asserting that the 'support given to academic and student communities from qualified subject librarians…is hard to justify…at a time when the process of literature searches is substantially deskilled by online bibliographical resources' (Tysome, 2005). These views are challenged by Pinfield (2001), who argues that subject librarians have a significant and expanded role to play in contemporary higher education (HE) and by a growing awareness of the importance of information literacy (IL) in the information society, with acknowledgement of the key role of librarians in supporting IL development (Johnston and Webber, 2003).

Despite much discussion of the subject librarian role in the professional literature (e.g. Pinfield, 2001; Rodwell, 2001; Biddiscombe, 2002), there have been few formal investigations of the role in UK universities. The last major survey was carried out by Martin in 1996, following up a study conducted 15 years earlier (Woodhead and Martin, 1982), but covering only those institutions designated as universities before 1992. The later survey confirmed subject specialization was still a popular model in the sector, which ran contrary to Woodhead and Martin's 1982 prediction that financial constraints would make the role non-viable.

Against this backdrop, the present small-scale study aimed to investigate the current role of subject librarians in UK universities across the whole sector (i.e. both pre- and post-

1992 universities), but concentrating on library staff supporting three particular subjects – English, Law and Chemistry – in a subset of institutions. (Twenty universities were approached and responses obtained from ten.) Its purpose was to build on previous research by providing a contemporary picture of the subject librarian role; but, in addition, to compare interpretations of roles in the traditional, research-led (pre-1992 or 'old') universities and the modern, teaching-led former polytechnics (the post-1992 'new' universities) and also to draw comparisons between roles supporting disciplines in the Arts, Social Sciences and Pure Science.

A subject librarian has been defined as 'a librarian with special knowledge of, and responsibility for, a particular subject or subjects' (Feather and Sturges, 2003:624). However, this definition conveys a rather narrow view of the role; a more comprehensive description would highlight the liaison and communication aspects, often stressed by commentators and reflected in the now widespread use of the title 'liaison librarian' in the UK. The latter title, along with that of 'information specialist' (another frequently used alternative), downplays the subject-specialist aspect of the role, which has been an ongoing matter for debate (e.g. Williams, 1991; Rodwell, 2001). The scope of this study includes library-based professional-level posts with designated responsibility for meeting the needs of staff and students in the disciplinary areas identified, irrespective of the postholders' job titles. The study had the following objectives:

- to collect information about the role of subject librarians supporting three particular disciplines in 'old' and 'new' universities in the UK;
- to examine the current roles of those subject librarians and compare them to roles previously identified and discussed in the literature;
- to study the extent to which information literacy teaching is the responsibility of the subject librarians;
- to investigate the relationship between academic departments and their subject librarians;
- to compare the roles of subject librarians in the traditional, research-led and newer, teaching-led universities;
- to compare the roles of subject librarians across the three subjects studied.

The next section of the paper reviews the literature which provides the context and background for the study. Subsequent sections describe the methodology adopted, analyse the results obtained and discuss those results in relation to the literature, concluding with a review of the findings and suggestions for further research. This paper is based on an unpublished Masters dissertation, which provides fuller details of the study, including the research instrument (Hardy, 2005).

LITERATURE REVIEW

Background

Subject librarians were first introduced at Oxford and Cambridge, followed by University College London in the 1940s; the system was designed to take advantage of 'the best features of a branch library system' and improve communications between the library and academic departments (Woodhead and Martin, 1982). Some universities established in the 1960s also adopted the model (Guttsman, 1965). The concept has been implemented through various organisational structures, ranging from minimal specialization, through 'hybrid' roles to dedicated subject teams (Scrivener, 1974).

Seminal government reports on UK university libraries have recognised the potential value of the role: the Parry report recommended 'the appointment in university libraries of subject specialists in order to improve reader services' (UGC, 1967:para.583), while the more

recent Fielden report predicted significant future change for the role, particularly in the development of closer working relationships with academic colleagues, referred to as 'academic convergence' (JFC, 1993:para.3.21-7).

Subject librarianship has generated a large body of literature covering more than four decades, but it is the scale and pace of change over the last 15 years which is distinctive (Biddiscombe, 2002; Gaston, 2001; Pinfield, 2001). This survey therefore concentrates on more recent literature, particularly material related to the UK and the specific themes of this study.

Role development

The Follett and Fielden reports (JFCLRG, 1993; JFC, 1993) offered predictions about a futuristic 'virtual librarian' and the likely elements of the subject or 'information librarian' role. Fielden found three main interpretations of the role, emphasising respectively bibliographical processing tasks, academic support activities and mainstream research contributions (JFC, 1993). Fielden saw the intermediate 'academic convergence' model as the future pattern and identified some of its core activities, which overlap with Martin's (1996) core functions, but are described in rather different terms: for example, 'tailored navigational support' and 'tutoring', as opposed to 'reference and information work' and 'reader education'. Follett presented a higher-level vision of a 'virtual librarian' assembling material for a new course from departmental sources, inter-university resource banks and commercially available material, and providing this to students via a departmental server, with inter-institutional collaboration reducing duplication of work across the sector (JFCLRG, 1993).

Pinfield (2001) and Biddiscombe (2002) confirm this development path, stressing not only the predicted shift towards electronic resources, but also increased team and project work, with extensive involvement in educational technology and virtual learning environments (VLEs); for example: inducting students and guiding staff in their use of VLEs, and developing digital libraries of learning objects. Pinfield (2001) points out these responsibilities have added to – but not replaced – traditional tasks, such as academic liaison, cataloguing and classification, collection management, enquiry work, subject guides and user education. Biddiscombe (2002) emphasises the role's pedagogical dimensions, arguing for increased involvement in study skills and tutorial support, and suggesting 'learning support professional' as a more appropriate label for the role envisaged. This reinforces Fielden's graphical representation of different types of learner support, which distinguishes between traditional activities (e.g. user education and mediated access to databases) that require library/information service competencies, and future roles in information skills education and tutorial support, requiring 'academic competencies' (JFC, 1993).

These developments require an extended skillset. The SKIP project identified two sets of partially overlapping competencies for librarians' roles in liaison and teaching/training respectively. For liaison, apart from 'in-depth and up-to-date knowledge of available resources', the main focus was on personal/interpersonal skills (e.g. communication, problem-solving and creative thinking) and understanding the activities and needs of the students and staff supported, including knowledge of the curriculum for their disciplines (Garrod and Sidgreaves, 1998:2.8.4). For teaching and training, (inter)personal skills were also prominent (e.g. team work, presentation skills and creativity) in addition to pedagogical and technological abilities (Garrod and Sidgreaves, 1998:2.8.8). Biddiscombe (2002) also mentions a knowledge of pedagogies, computing skills and an understanding of VLEs as key areas for development.

The importance of subject knowledge for subject-based library work features in the American literature, particularly in relation to science subjects (e.g. Williams, 1991; Stuart

and Drake, 1992; Hallmark, 1998; Hooper-Lane, 1999), but less so in recent British publications. In the UK, Humphreys (1967:40) argued that familiarity with the structure of the literature of the relevant discipline and the major resources in the field was normally sufficient for the role. However, Mackenzie (1997) and Toft (2004) mention the advantages of a law school librarian having a law degree. Pinfield (2001) states that though preferable for staff to have some background in the disciplines supported, it is impossible to have expertise covering all their subject responsibilities, arguing that the crucial requirement is 'an appreciation of teaching and research techniques in those subjects, in the structure of the literature, and in key terminology and concepts' (2001:38).

In contrast, a survey of US Chemistry librarians showed 64% had science degrees (43% in Chemistry) and respondents typically spent more than 4 hours per week updating their subject knowledge (Hooper-Lane, 1999). Battin (2001) argues that the contemporary environment increases the need for in-depth knowledge of disciplinary specializations, but echoes Pinfield (2001) in relating that knowledge to clients' activities, mentioning the need to know how particular disciplines seek and use information resources and digital technologies, as well as knowing about new instructional and research methodologies. From Australia, Rodwell (2001) acknowledges that academics may more readily accept a librarian with a background in their subject – especially in law – but reiterates Lary's (1996) point that librarians need to share the values of their clients. Thus, the balance of opinion acknowledges the value of disciplinary knowledge, but prioritises knowledge of the client group within that discipline.

Information literacy

The contribution of subject librarians to IL development is a recurring theme, with this role variously described as trainer, teacher or 'learning facilitator' (e.g. Garrod and Sidgreaves, 1998; Court, 2001; Powis, 2004). A key issue is the extent to which IL is embedded and integrated into curricula. Hepworth (2000) maps different approaches onto a five-point continuum, ranging from voluntary generic to subject-specific assessed provision. The Society of College, National and University Libraries has published case studies of institutional practice spanning various points of this continuum (SCONUL, 2004).

Most practitioners see full integration as their goal, but recognise the inherent challenges, such as professional competence and academic attitudes (Doskatsch, 2003). Librarians who have successfully integrated provision emphasise collaboration with academics and other services (Davies and Jackson, 2005). However, Johnston and Webber (2003) challenge the subject-specific approach and discuss a successful stand-alone assessed module. Either way, the training and development implications for librarians are significant, as 'Effectiveness in this role requires the convergence of pedagogical knowledge, information expertise, technological competence, strategic skills and professionalism' (Doskatsch, 2003:113)

Liaison and communication

Despite the emphasis on liaison in recent literature (e.g. Garrod and Sidgreaves, 1998; Pinfield, 2001), the mechanics of fulfilling this function have received better coverage from earlier writers. Logan (1976:39) defines liaison as 'those occasions, formal and informal, when there is some exchange of information between librarian and library user concerning the work of the library and the services it provides' and provides several examples of how librarians can communicate with their user base, including participation in committees, contact with individuals, information sheets, newsletters, reports, questionnaires and out-of-hours activities. Holbrook (1984) confirms the importance of committees, but also suggests visiting the client department at least daily and using enquiry services to advertise the liaison

librarian's function. Jackson (2002) reports good levels of participation in law department meetings, with slightly lower levels for boards of study or equivalents. Other activities mentioned included involvement in departmental open days and library committees.

Some US practitioners view traditional models of liaison as too passive and ripe for replacement by a more dynamic 'information consulting' model (Frank et al., 2001). This model 'connects the library to its clientele at a time when libraries are in danger of serious disconnection from their campuses as desktop research pervades the environment' (Donham and Green, 2004:321). In the UK, some information specialists responsible for particular subject areas are seen as 'ambassadors' for the service (Hyams, 2005:28). In a rare published comment from an academic perspective, Toft (2004) endorses the role of committees, advocates the appointment of library contacts in academic departments and suggests various ways to engage staff, such as: providing individual just-in-time hands-on sessions on teaching and research resources; advertising the availability of appointments; being proactive in offering help; and creating highly subject-specific resources.

RESEARCH METHODOLOGY

A questionnaire was used to collect mainly qualitative data about the roles of subject librarians, aiming to cover ten old and ten new universities offering programmes in the three disciplines selected (English, Law and Chemistry).

A qualitative approach was considered most appropriate for a relatively small-scale real-world investigation. A literature review was conducted to establish the context for the study and inform the design of the research instrument. A questionnaire survey was selected as particularly suitable for gathering opinions and information in a standardised format from a geographically dispersed population within a limited timescale. Evidence from the practitioner literature indicated a level of interest in the topic and a professional climate likely to encourage full and honest answers, but also flagged the many demands on subject librarians' time, suggesting they would find it more convenient to respond to a mailed questionnaire than to commit time to a telephone or face-to-face interview.

Institutions were chosen randomly by selecting ten universities at equal intervals from alphabetical lists of old and new institutions, viewing their websites to establish whether they offered the three target subjects and then searching their library web pages to identify the relevant subject librarians or equivalent postholders. Where a selected institution did not offer the relevant subjects or did not provide named library contacts for the subjects, the next institution in the list was chosen, until contact details for 60 potential participants had been located.

The questionnaire was designed around the study objectives, with three main sections relating to postholders' roles, their involvement in IL and communication with their departments. It was highly structured, with extensive use of closed questions, tick boxes and rating scales to facilitate quick completion and encourage a high response, but it also allowed respondents to insert other answers in addition to the options provided and invited them to make further comments to amplify their responses. The content of the questions drew on findings from the literature, particularly in specifying the tasks involved in subject-specific support and the areas of competency required. It was designed to take 20 minutes to complete and piloted before distribution.

The questionnaires were distributed as email attachments and covering messages were personalised by addressing recipients by name in the invitation to participate, to encourage a response by emphasising that they had been personally chosen. Recipients were informed that all data collected would be anonymised so that individual responses could not be identified. The same questions were used for the three disciplines covered, but the questionnaires were also personalised by inserting the name of the relevant discipline at appropriate points.

Participants were offered the choice of electronic or paper submission: most respondents chose to submit electronically. Non-respondents were sent an email reminder of the deadline as it approached. Thirty-two responses were received from ten institutions, achieving the desired disciplinary mix and institutional balance. Table 1 shows the distribution across subjects and between old and new universities. (For Law, in one old and one new university, responses were received from each member of teams of three and two staff respectively supporting the subject, which is reflected in the figures shown.)

Table 1. Distribution of responses			
	English	**Law**	**Chemistry**	**All subjects**
Old uni	5	7	6	18
New uni	4	6	4	14
Total	9	13	10	32

The questionnaire responses were analysed in an iterative process using qualitative techniques, as the datasets obtained were too small to allow statistical analysis.

RESULTS

Roles, activities and competencies

Respondents were asked to state their formal job titles, the approximate percentage of time spent on subject work and details of staff assisting them. They were then asked to select from lists the tasks carried out in their subject role and the competencies needed, indicating the areas that were most important.

Many different job titles were recorded, but most of these were variants on a theme, rather than totally different titles – for example, 'Academic Liaison Librarian', 'Faculty Liaison Librarian' and 'School Liaison Officer', the last two reflecting different institutional structures. Practice also varied as to whether the subject area (e.g. English or a broader grouping, such as 'Arts') was part of the title, added in brackets, etc. The pattern of titles was similar across the three subject areas, although staff supporting Law more often included their subject name in their title and were less likely to be supporting other subjects areas in addition. There were some differences between old and new universities, with the former being more likely to include 'liaison' in the title and the latter more likely to include 'information'. Around two-thirds of the sample featured the word 'librarian', with several using the generic title 'Assistant Librarian', notably in new universities. Table 2 summarises the findings, grouping the titles into four broad categories. Two respondents had other roles and titles in addition to their subject responsibilities, which have been omitted from this table; variants with 'Senior' as a prefix have also been ignored here. (Not everyone answered this question. Duplicate responses from the same institution were not recorded.)

For convenience, in the rest of this paper, the term 'subject librarian' or '[Discipline] librarian' is used, irrespective of the respondent's formal title.

Four respondents worked part-time (18.5 hours per week). Three of these posts (one in each discipline) were in new universities and one (Chemistry) post was in an old university. Respondents' estimates of the amount of time devoted to subject support varied considerably, from around 2% (less than one hour per week) to 100%. The most striking finding here was the much higher figures for Law in both old and new universities, where estimates ranged from 20% to 100% and from 30% to 100% respectively. The highest figures quoted for the other disciplines were 20% (old university) and 40% (new university) for English and 15% (old university) and 40% (new university) for Chemistry.

Title	Old uni	New uni	Total
Table 2. Job title categories and examples			
Generic title			4
Assistant Librarian	1	3	
Traditional subject focus			7
[Discipline] Librarian	2	1	
[Discipline] Subject Librarian	3	1	
Information focus			9
Information Advisor		1	
Information Librarian		2	
Information Officer ([Discipline])	1		
Information Specialist ([Discipline])	2	3	
Liaison focus			6
[Discipline] Liaison Librarian	1		
Academic Liaison Librarian	1		
Faculty Liaison Librarian	2		
School Liaison Officer		2	

The data collected on staff assistance available to subject librarians did not allow any firm conclusions to be drawn, but suggested that support from library/information assistants was more common in old universities, but not a frequent occurrence. Such support was often provided by one or more assistants, whose time was shared between a team of subject staff; except in the case of Law, where dedicated sub-professional and/or professional-level support was reported in two old and three new universities, as indicated by the teams of Law librarians already mentioned.

The data on tasks carried out as part of the subject librarian role revealed a wide range of activities, with similar responses from old and new universities and few differences between disciplines. All respondents were involved in departmental liaison, confirming the centrality of the latter in the contemporary environment. Almost all also selected user induction and information literacy training, which were closely followed by enquiry work and user guides. One English librarian from a new university listed promotion of materials as an additional task.

Very few respondents carried out cataloguing and classification, with just one (English) librarian involved in cataloguing – which was exclusively retrospective conversion – and two English and five Chemistry librarians involved in classification; the latter may reflect the fact that more specialist knowledge is needed to classify material in the pure sciences. Half of the respondents were involved in e-learning/VLEs, which is lower than might have been expected in view of recent growth in this area, and there were some differences between disciplines with only 3 out of 9 English librarians being involved, compared with 8 out of 13 Law librarians and 5 out of 10 Chemistry librarians. Involvement in web page development and maintenance was also uneven, with English librarians again least involved at 4 out of 9, compared with 9 out of 13 Law librarians and 8 out of 10 Chemistry librarians. Figure 1 summarises the tasks selected, differentiating responses by discipline.
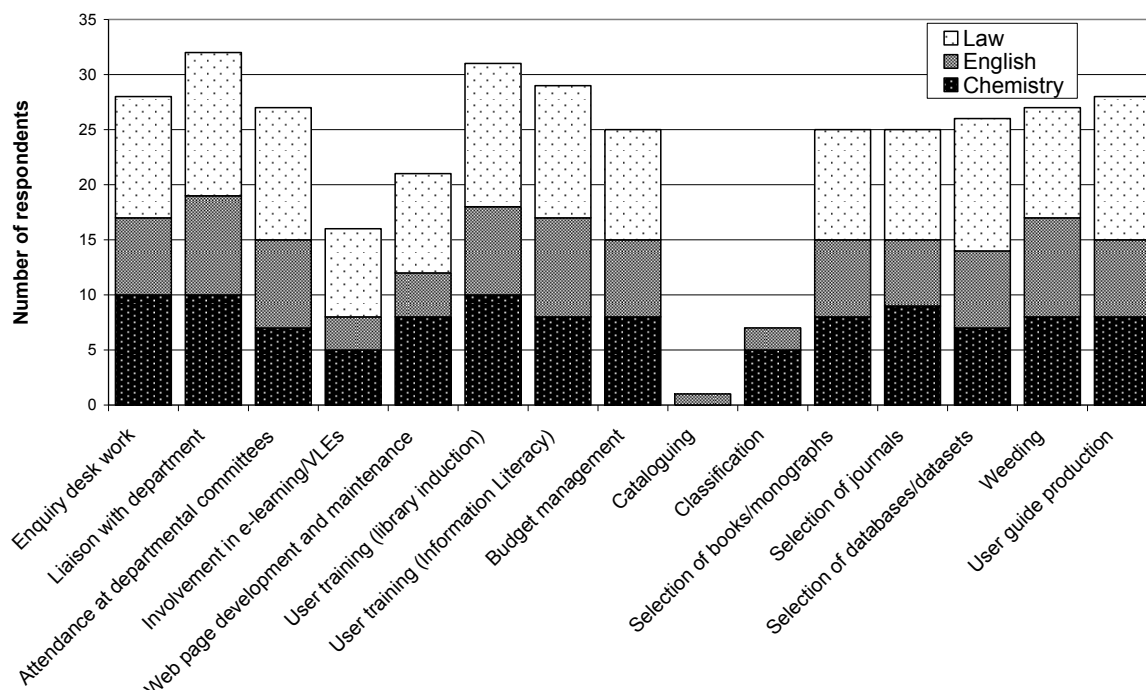
Figure 1. Tasks carried out by subject librarians

The set of competencies needed to perform the subject librarian role reflects the wide range of tasks identified. Eleven of the 13 areas of competency listed were selected by more than half the respondents. Almost all respondents (30 out of 32) selected teaching skills, information searching/retrieval and MS Office, which were closely followed by written communication, oral communication and negotiation skills, emphasising the interpersonal dimensions of the role alongside the professional/technical aspects. Respondents were also asked to mark the most important competencies and librarians in all three subject areas identified the same two areas, namely teaching skills and information retrieval. One Chemistry librarian suggested financial management as an additional competency; no-one suggested adding any aspects of subject-specific knowledge to the list. There were no discernible differences between old and new university responses. Figure 2 shows the competencies selected. Dark shading indicates respondents who considered the competency more important.

The data for the different disciplines were broadly similar in terms of the most and least important competencies. Thus, for both Law and Chemistry, all respondents selected teaching skills, information retrieval, MS Office, written and oral communication. There was less unanimity among English librarians, in that none of the competencies was considered important by all 9 respondents and only one (pedagogical knowledge) was selected by 8 out of 9. However, 7 selected teaching skills, information retrieval and MS Office, and 6 selected written communication, team working and project management skills, providing considerable reinforcement of the findings for the other two subjects. The least selected competencies were cataloguing/classification and HTML/XML, but there were some differences here between disciplines. Cataloguing/classification was selected by 4 out of 9 English librarians and 5 out of 10 Chemistry librarians, compared with only 1 out of 13 for Law, reflecting the tasks identified by librarians supporting those disciplines. HTML/XML was selected by only 1 of 9 English librarians and 3 of 10 Chemistry librarians, but 6 of 13 Law librarians. This seems inconsistent with the tasks identified by respondents above, where 21 respondents (including 8 Chemistry librarians) selected web page involvement, but can be explained by comments

indicating that many librarians' involvement here is limited to preparation of web page content, with other technical staff mounting the information for them.
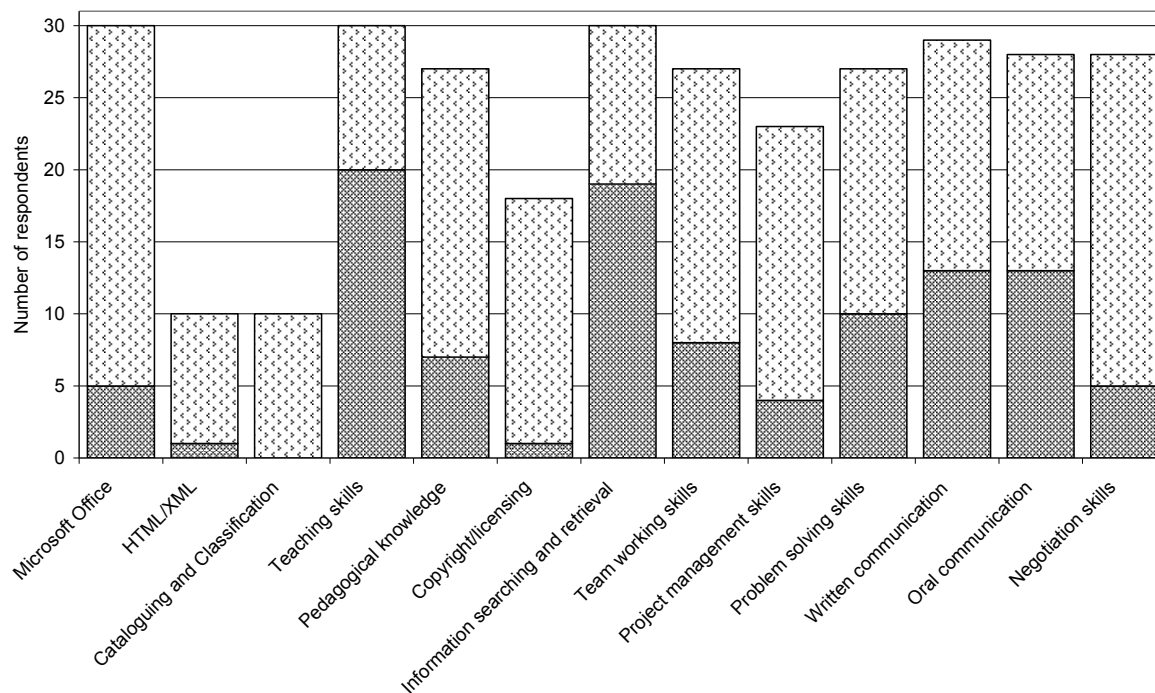
Figure 2. Competencies needed by subject librarians

Information literacy

Respondents were asked to state the categories of students and staff for whom they provided IL teaching/training, to estimate the number of contact hours per year, and to indicate if any training was delivered electronically (e.g. through a VLE) and if any training was compulsory and/or assessed. They were also asked to indicate on a seven-point scale the extent to which provision went beyond basic skills to more advanced searching, such as the use of specialist databases/datasets.

Overall, the results showed that all postholders except one were involved in IL development at undergraduate level and almost as many were involved at the postgraduate level, but with some small differences between disciplines. English subject librarians were most extensively involved with all categories of students, whereas Law librarians had slightly less involvement with research postgraduates and Chemistry librarians less involvement with taught postgraduates. More than half the sample also reported involvement in IL training for academic staff (Law librarians being most active in this area) and around one third reported activity with research staff (English librarians being most active here). Responses showed a broadly similar pattern of activity across old and new universities, except in relation to research staff, where new universities reported higher levels of activity in English and Law, but no involvement in Chemistry.

Only eight respondents (2 English, 2 Chemistry and 4 Law) were using electronic delivery for IL courses, though two other Law librarians had plans to do so. Thirteen of the sample (2 English, 5 Chemistry and 6 Law) were involved in assessment and a further eight (2 Chemistry, 2 Law and 4 English) mentioned compulsory courses, indicating that IL is increasingly being acknowledged as important. There were no discernible differences here between types of institutions. It is worth noting that for Law, 8 out of 9 respondents to this question gave examples of IL provision that was compulsory (and mostly assessed).

Estimates of total contact hours per year varied considerably within and between disciplines, with figures for English librarians ranging from 5 to 47 hours, from 0 to 95 for Chemistry and from 7 to in excess of 100 for Law. The zero-hours response in Chemistry relates to an institution where provision was limited to an optional electronically-delivered course for undergraduates. In contrast, the Law responses included one example where a librarian reported spending 1.5 hours per first-year student per annum and 2 hours per taught postgraduate. For English, the highest figures were recorded by staff in old universities, but the other disciplines showed a range of figures across both old and new institutions.

When asked how far their provision extended beyond basic skills, the vast majority of respondents (19 of 26 answers to this question) placed the level of their IL training at point 5 or above on the seven-point scale. Figure 3 summarises the responses, differentiating old and new universities. Responses from members of the same institution were taken together, as representing the institution's approach to IL teaching/training.
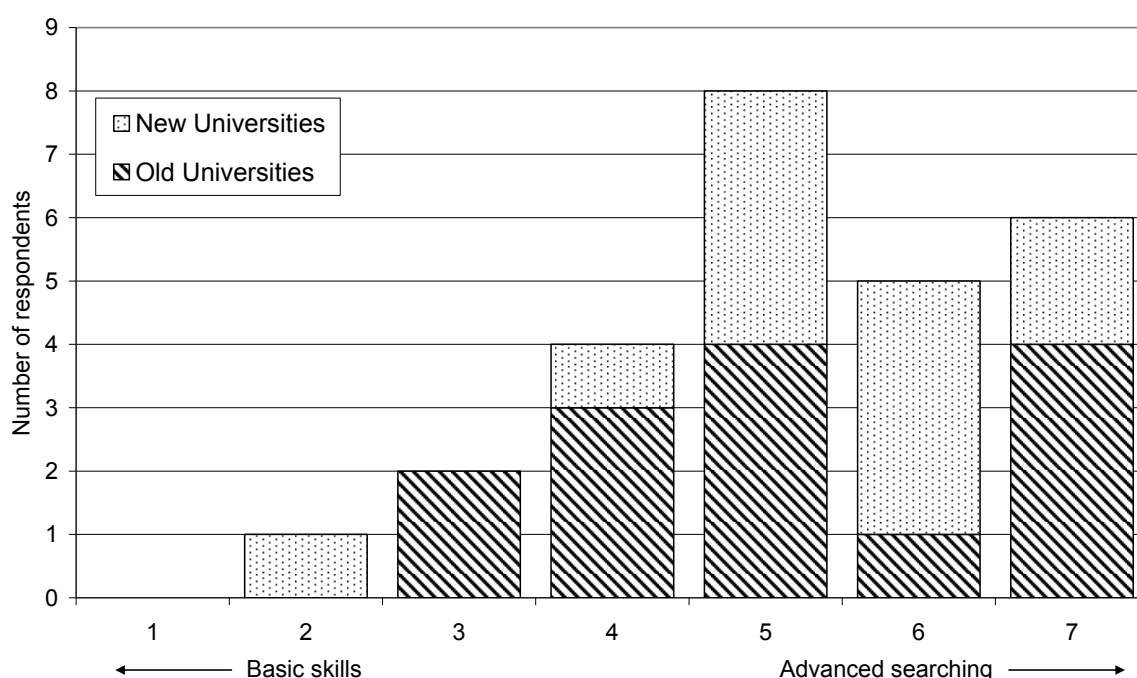
Figure 3. Extent of advanced IL training in old and new universities

While the differences between old and new universities are marginal, there were some differences between disciplines recorded here, with all seven of the English responses placing their provision at point 5 or above (including 3 at point 7) compared with 6 out of 9 for Law (with 2 at point 7) and 6 out of 10 for Chemistry (with one at point 7).

While the variations in data make it difficult to generalise, additional comments offered by respondents confirm this as an area which is continuing to develop and that library staff see integration into the curriculum and partnership with academic colleagues as the way forward:

'Figures are…likely to increase considerably this year' (English librarian, old university).
'Ideally IL sessions would also be offered to students at a later stage in their course…discussions with academics on this integration is still at an early stage' (Law librarian, old university).
'Information skills teaching is too much of an 'add-on'…I have recently worked on a detailed information literacy proposal which has been seriously considered by the School' (Law librarian, old university).

'One of the chemistry lecturers and I have just won a university teaching fellowship to integrate information literacy into the UG chemistry curriculum…' (Chemistry librarian, old university).

Communication and relationships

Respondents were asked about the existence of a named library contact in their department, attendance at departmental committees, methods and ease of communicating with the department and the quality of their relationships.

Responses in relation to both contacts and committees revealed some differences in practice between old and new universities. All but one Chemistry librarian had a named contact in the academic department, though in two cases the contact was an administrator, rather than an academic. For both Law and English, all respondents from old universities had named academic contacts, but only half of the new university librarians had designated contacts. In contrast, for both Chemistry and English, staff in new universities had standing invitations to attend departmental committees, but in old universities, attendance was less regular and more likely to happen when library issues were on the agenda, for example:

'Invitations to meetings are sporadic, and just when I think I have got on to the list of a committee, I realise that I have not been invited to the next meeting. They do invite me if there are specific library matters to be discussed…' (English librarian, old university).

The situation in Law was more variable, with extensive library involvement indicated, but over a larger number of committees, which were not always attended in person, for example:

'Whilst I don't attend Staff-Student Liaison Committee I am always consulted before and after' (Law librarian, old university).

'…I monitor [the research committees'] minutes on the intranet' (Law librarian, old university).

Not surprisingly, the main method used by librarians to communicate with academic staff was email, which was mentioned by almost all respondents, for both individual contacts and for communicating news or reports via distribution lists. Chemistry respondents also mentioned using email to communicate with students. Respondents from all subjects also mentioned more traditional methods, such as paper-based media, telephone conversations and personal contact through face-to-face meetings and outreach activities in the department and in the library (e.g. workshops, open days and liaison events), underlining the need to be proactive and identify effective channels of communications, for example:

'I often use Law staff post pigeon holes to circulate important messages as email is not that effective' (Law librarian, new university).

'Good contact with admin staff is essential to help facilitate the practical dissemination of information to both staff and students. I email, phone and visit admin and academic staff on a regular basis' (Chemistry librarian, old university).

Responses on ease of communication and quality of relationships revealed some differences in ratings between disciplines and (to a lesser extent) between type of institution. Although there was not an exact match between the two sets of ratings, respondents who rated their relationship highly generally gave themselves higher ratings for ease of communication. Thus, for English, 8 out of 9 respondents to this question rated the relationship with their department at 4 or 5 (on a 5-point scale) with 6 rating ease of communication at 4 or 5 (also on a 5-point scale). For Law, 7 out of 9 responses scored 4 or 5 for each assessment, though with a different distribution between point 4 and point 5 in each case. For Chemistry, the two sets of ratings closely reflected each other, but only 5 out of 10 rated their relationship at point 4 or 5 and only 4 rated ease of communication at 4 or 5. Law and Chemistry librarians in new universities rated their relationships and communication

slightly above the ratings of their counterparts in old universities, whereas English librarians in old universities had higher ratings for their relationships, but not for communication.

It is arguably not surprising that subject librarians responsible for the more traditionally library-based disciplines find it easier to communicate and establish effective relationships with their departments. However, several law librarians also emphasised the value of informal contacts with academic staff, including meeting them for coffee or lunch, thus:

'[A rating of 4 out of 5 for ease of communication with the School] has taken years of development to achieve. It has helped that two of us have served the Law School, on and off, over the past 13 years' (Law librarian, old university).

Similarly, for English,

'I think one reason for good relations is that I do see some academic members of the department outside occasionally and can enjoy discussing their interests' (English librarian, old university).

DISCUSSION

Subject librarian roles

Basic data about job titles provided some initial signals about roles. The majority of institutions had retained the term 'librarian' in the title, thus not judging it to be inappropriate (c.f. Biddiscombe, 2002), but a substantial number included 'information' in the title, representing a shift of emphasis; and many explicitly included 'liaison', flagging this as the core function – all respondents confirmed liaison as one of their tasks. A key feature of the findings was the wide range of tasks performed by a sizeable majority of respondents, with some two-thirds reporting involvement in 13 of the 15 activities listed, confirming the widespread adoption of Fielden's 'academic convergence' model of working with colleagues in a wide range of activities (JFC, 1993). The alternative models of academic researcher or subject bibliographer did not feature, with no involvement in mainstream cataloguing by respondents and minimal engagement with classification, suggesting this area of work may not survive much longer among the traditional tasks retained alongside newer work (c.f. Pinfield, 2001).

More specifically, the findings confirmed that many of Fielden's projected activities formed part of contemporary roles, such as tuition and assessment of students; helping staff to use resources effectively; and producing subject-specific guides for staff and students (JFC, 1993). Other activities, notably advising committees on curriculum design, were less far advanced, but recognised by respondents as important aspirations. The related vision in the Follett report (JFCLRG, 1993) of the virtual librarian involved in assembling learning materials for electronic delivery has not yet been fully realised. Only half of the respondents were involved in e-learning/VLEs, suggesting slower engagement with educational technology than anticipated in the literature (Pinfield, 2001; Biddiscombe, 2002; Cipkin, 2002). However, several respondents were already managing e-delivery of IL training, others were actively considering it and some two-thirds were involved in web-page development and maintenance.

The wide range of activities undertaken was reflected in the breadth of competencies needed, spanning professional, technical, pedagogical and personal skills. Biddiscombe's (2002) emphasis on the pedagogical dimension and Fielden's prediction of library/information service competencies being complemented by 'academic competencies' (JFC, 1993) were confirmed by the responses, with teaching skills emerging as a priority need alongside information searching/retrieval skills, and pedagogical knowledge seen as essential by 27 out of 32 respondents. The emphasis placed on interpersonal competencies

(e.g. oral and written communication) echoed the SKIP project's identification of these skills with both the liaison and training/teaching roles (Garrod and Sidgreaves, 1998).

One competency omitted from the list given to participants was the area of subject-related knowledge and understanding, which features in the literature, but less prominently in the UK than in other countries. None of the respondents identified this as a key issue or even mentioned it as an additional area for consideration, not even in the Chemistry subset (where one respondent did suggest financial management as an additional competency needed), which was surprising in view of the emphasis placed on subject competence by US Chemistry librarians (Hooper-Lane, 1999).

Information literacy responsibilities

The survey findings confirmed evidence from the literature of rapid growth and ongoing development in this area, with responses showing widespread involvement in IL support for both students and staff. E-delivery was not widely used, but actively being planned. However, some two-thirds of respondents reported assessed and/or compulsory courses and a similar proportion rated the level of skills taught at a fairly advanced level. More detailed comments pointed to continuing growth and reinforced messages in the literature about integration and partnership (Hepworth, 2000; Doskatsch, 2003).

Relationships with academic departments

The findings suggested communication as a key factor in relationships. Respondents mentioned many different methods of communicating with their departments, confirming the value of long-established approaches, such as committees, contacts, reports, open days and out-of-hours activities (Logan, 1976; Jackson, 2002), supplemented by e-communication, via personal e-mail, distribution lists and web pages. The findings showed that the existence of named contacts was less important than adopting a proactive approach, in the style described as 'consulting' rather than liaising (Frank et al., 2001; Donham and Green, 2004; Toft, 2004), exemplified here by carefully selecting effective channels of communication (including paper-based media, administrative staff and personal/social contacts) and aiming to build and nurture relationships over the long term.

Comparing old and new universities

The results showed relatively few differences in the practices and perceptions of subject librarians in old and new universities. Where differences were noted, these were usually marginal and generally should be treated with caution in view of the small sample. No discernible differences were identified in the tasks undertaken or the competencies needed. Some differences of emphasis were detected in the job titles used, with a liaison focus being more common in old universities and an information focus more common in new universities. There was also more evidence of sub-professional support being available in old universities. Finally, in the context of departmental communication, more old university librarians had named academic contacts and more new university librarians were invited to committee meetings, but these factors did not seem to be critical in determining the quality of relationships with departments.

Comparing the different subject fields

Similar qualifications apply to comparisons across the different disciplinary areas. There were notable differences in staffing patterns for Law, where respondents reported higher proportions of their time spent on subject-related work and higher levels of support, at both professional and sub-professional levels. This may be attributable to the traditionally library-dependent nature of the discipline, existence of separate Law libraries and/or the large

numbers of students generally taking the subject, none of which was investigated in this study. Nevertheless, different staffing arrangements influence the nature of the role, making subject librarianship in Law seem more of a team activity than in the other disciplines studied.

Law was also the only discipline where no cataloguing and classification was done as part of the role and English was the area least involved in web-page development/maintenance and e-learning/VLEs. Otherwise, there were no marked differences between subjects in either the tasks performed or competencies needed. However, detailed examination of IL activity again picked out Law, as most active in e-learning and in compulsory/assessed provision; but English librarians recorded the most comprehensive IL engagement with different categories of students and also rated their provision at more advanced skill levels than the other disciplines. Finally, communications and relationships were more highly rated in these traditionally more library-oriented disciplines than in Chemistry.

Limitations of the research

Time and resource constraints limited the scale of the study to an extent which precluded statistical analysis and generalisable findings. In addition, non-responder bias may have skewed the results towards librarians with higher levels of activity and/or better relationships with academics, who may have been more willing than others to participate in the study. Relying on only one data collection method and solely on the postholders' own perceptions of their work were further limitations. Finally, the use of categorised questions may have caused respondents to overlook or omit tasks and competency areas which were not explicitly mentioned, even though space was provided for comments.

CONCLUSION

The study found a variety of job titles in use, which can be broadly categorised as having a generic, traditional, information or liaison focus, with the term 'librarian' still being used in most old and new universities. Postholders were involved in a diverse array of activities, with liaison and IL central to their roles, growing use of e-media and increasing integration into academic curricula, but little involvement in cataloguing and classification. Competency needs reflected postholders' involvement in teaching and the importance of liaison/ communication activities, with pedagogical and interpersonal abilities seen as essential to complement their professional/technical skillset, though requirements for subject-related knowledge remain open to question. Communication was a key factor in managing liaison and developing relationships, but formal mechanisms (such as designated contacts and committee memberships) were less important than being proactive, using personal contacts and selecting media to suit particular audiences. Comparisons between institutional types and different disciplines found more similarities than differences, but revealed some differences of emphasis between old and new universities in job title terminology and formal communication mechanisms, and some distinctive features in the staffing and delivery of subject support for Law.

The limitations of the study (particularly the composition of the sample and the structure of the questions) mean that firm conclusions cannot be drawn, but it has succeeded in its aim of exploring the subject librarian role in the contemporary environment and has provided a snapshot of activity in specific contexts. It has confirmed predictions in the literature of closer collaboration with academic colleagues, increased involvement in formal teaching of IL and related requirements for an extended skillset.

The findings suggest that subject librarians are still fulfilling a useful role in the web-based environment, but further research is needed to substantiate such claims and refute

counter arguments. A larger-scale study employing additional methods with a bigger sample would allow the areas explored here to be investigated in more depth. Specific areas where it would be useful to extend the investigation include:

- proportions of time spent on the different activities identified, e.g. comparing time spent on enquiry work, IL and user guides;
- the subject-related knowledge and understanding needed for the role;
- perceptions of the role and its value held by key stakeholders, such as library directors, academic staff and students;
- relationships with other players, such as educational developers, learning technologists and information systems specialists;
- criteria and methods for measuring successful performance in the role.

ACKNOWLEDGEMENTS

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