

The healthcare librarian as educator – roles and attitudes

Gwenda J. Mynott

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Contents:

Section heading:	Page number:
Summary	iv
Declarations	v
Acknowledgements	vi
1. Introduction	1
1.1 Context	1
1.2 Aims and objectives	8
1.3 Scope and parameters	8
1.4 Summary	9
2. Literature review	10
2.1 Introduction	10
2.2 Search strategy	11
2.3 Literature located	11
2.4 Discussion	15
2.4.1 What is user education in the NHS?	15
2.4.2 Attitudes of librarians	17
2.4.3 Motivation to provide user education	19
2.4.4 Do librarians' attitudes carry through to their daily activities?	20
2.5 Summary	21
3. Methodology and data collection	23
3.1 Introduction	23
3.2 Data required	23
3.3 Methods considered	25
3.4 Sampling	27
3.4.1 Sampling – interviews	28
3.4.2 Sampling – questionnaire	29
3.5 Interview design and data collection	29
3.5.1 Choice of questions for interviews	29
3.5.2 Format of interviews	31
3.5.3 Interviews – data collection	31
3.5.4 Interviews – analysis techniques	32
3.6 Questionnaire – design and data collection	33
3.6.1 Format of questionnaire	34
3.6.2 Questionnaire – data collection	35
3.6.3 Questionnaire – analysis techniques	36
3.7 Ethical issues	36
3.8 Quality issues – validity and reliability	36
3.9 Summary	37
4. Results	40
4.1 Introduction	40
4.2 Background characteristics	40
4.3 What is user education?	41

4.4 Attitudes of librarians	45
4.5 Motivation to provide user education	47
4.6 Reality of everyday practice	49
4.7 Summary	51
5. Discussion	53
5.1 Introduction	53
5.2 Do librarians think they have an educational role?	54
5.3 Critical appraisal and evidence based practice	55
5.4 Do librarians think they have the right skills and knowledge?	56
5.5 What motivates librarians to provide user education?	57
5.6 Are attitudes reflected in daily practice?	58
5.7 Summary	59
6. Conclusions	61
6.1 Introduction	61
6.2 Aims and objectives	61
6.3 Main findings	62
6.4 Limitations	63
6.5 Recommendations for further research	64
6.6 Conclusion	65
7. Bibliography	66
Appendices	
Appendix 1: Interview guide	
Appendix 2: Item pools	
Appendix 3: Questionnaire	
Appendix 4: Questionnaire – covering letter	
Appendix 5: Ethics letter	
Diagrams	
Diagram 1: Factors influencing NHS Libraries	4
Diagram 2: Process of data collection and analysis	39
Tables	
Table 1: Literature search strategy	11
Table 2: Literature located	12
Table 3: Data requirements	25
Table 4: Methods considered	26
Charts	
Chart 1: How many years have you worked as a librarian?	41
Chart 2: Is user education more important than a book collection?	42
Chart 3: Proficiency	42
Chart 4: User education is about passing on knowledge	43
Chart 5: Librarians should be involved in critical appraisal training	43
Chart 6: Librarians should teach evidence based practice	44
Chart 7: Confidence in teaching healthcare professionals	46

Chart 8: Skills in order to teach	46
Chart 9: User education raises the profile of the librarian	48
Chart 10: User education can directly improved patient care	48
Chart 11: Do you teach evidence based practice?	49
Chart 12: Advanced database searching	50
Chart 13: Do you teach critical appraisal?	50
Chart 14: Time spent on user education	51
Chart 15: Percentage of respondents teaching in particular areas	58

Summary:

Background: The NHS is undergoing major change and libraries are not sheltered from the impact of this change. The demands of evidence based practice and clinical governance mean that librarians are increasingly expected to have an educational role. The professional and official literature promotes the educational role of librarians. This encompasses teaching literature searching skills and critical appraisal while focusing on finding evidence based pieces of research. To date little research has been done on the role of librarians as educators or on the impact of user education.

Aims and objectives: the study aimed to discover what librarians think about having an educational role. The narrower objectives were: do librarians think they have the right skills and knowledge to have an educational role; are librarians' attitudes reflected in their day to day work; do librarians think they have a role in teaching evidence based practice and critical appraisal and what motivates librarians to provide user education.

Methods: The project used semi-structured interviews followed by a postal questionnaire. The population group was librarians working for the NHS in the North West of England.

Main findings: The study found that while the respondents feel confident as educators they remain unsure as to whether they should be teaching the more advanced aspects of critical appraisal and evidence based practice. In reality, very few librarians are involved in teaching these information skills and the rhetoric of the official and professional literature does not appear to be carried through to the day to day practice of the librarians.

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Chapter 1: Introduction

1.1 Context

In 1997 a Labour government was elected to power and introduced an agenda of modernisation within the public sector. As part of this on-going agenda, the National Health Service (NHS) is under going radical change and libraries operating within the NHS are by no means sheltered from this. In recent years a number of key NHS documents have stressed the importance of information management and technology (I.M.&T.) in transforming healthcare delivery. The white paper the *New NHS Modern Dependable* (Department of Health 1998a) had a strong focus on the effective use of information and in 1998 the *Information for Health* NHS information strategy (Burns 1998) re-shaped the I.M.&T. agenda. One of the stated objectives of this strategy was:

“round-the-clock on-line access to patient records and information about best clinical practice, for all NHS clinicians” (p3)

Librarians were seen to have a leading role in providing and facilitating this access to information about best clinical practice. *Information for Health* placed a strong emphasis on education, training and development (ETD) and annex E of the strategy acknowledged the important role librarians have in supporting evidence based practice, clinical governance and the statutory duty for quality (NHS Executive 1998). This statutory duty for quality was introduced in 1998 as part of the clinical governance agenda. Clinical governance can be defined as:

“A framework through which NHS organisations are accountable for continuously improving the quality of their services and safeguarding high standards of care, by creating an environment in which excellence in clinical care will flourish.” (Department of Health 1998b p33)

The adoption of clinical governance has meant that the Chief Executives of NHS Trusts have a legal requirement to provide quality healthcare. One important aspect of this has been the new emphasis on the need for a culture of life long learning and continuing professional development for all NHS employees (Lugon and Secker-Walker 1999). The continual updating of knowledge and skills is seen as a key enabler for NHS staff to provide the best possible clinical care. This puts evidence based knowledge at the centre of the clinical governance agenda. The clinical governance paper stated that:

“without .. knowledge ... the first building block in evidence based clinical decision making will be missing...this means focusing on the means by which evidence is made accessible and equipping staff with the skills to know how to evaluate and apply it in individual clinical situations” (Department of Health 2001 p10)

Therefore evidence based practice forms one of the main components of clinical governance (Ferlie 1999). Sometimes described as “doing the right things right” (Gray 1997 p17) evidence based practice can be defined as:

“the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients. The practice of evidence based medicine means integrating individual clinical expertise with the best available external clinical evidence from systematic research” (Sackett et al. 1996 p71)

Being able to deliver evidence based clinical care rests on clinicians and managers being able to find, appraise and put into practice research findings. Searching databases, the Internet and other sources of information for research findings is a difficult task. Librarians and libraries are seen as key in the collection and dissemination of research evidence. However, the information needs of evidence based practice go further than purely finding reports of research. Not all research is of equal standing and the need to understand the hierarchy of research and to read

critically is of paramount importance. The aim of critical appraisal is to systematically assess the quality of a published paper in terms of methodology and results.

The number of librarians that are involved in critical appraisal is debatable and there is some reluctance at a local level to take on board all aspects of evidence based practice (Urquhart et al. 1999). However, nationally the need for evidence based knowledge has been taken forward. It was recognised that there needed to be an:

“integrated knowledge environment that delivers evidence about best practice, clinical guidelines and educational materials directly to the clinical coal face” (Kalra et al 1999 p153)

One outcome of the *Information for Health* I.M.&T. strategy has been the development of the National Electronic Library for Health (NeLH). As an electronic library the NeLH has been developed to provide access to knowledge and critically appraised secondary sources of information. This has opened up a number of resources to a far wider audience than traditional library services could meet. The NeLH has also been developed to provide for all healthcare professionals whereas traditionally health libraries have focused on medical personnel and to some extent nurses. More recently a national procurement project for the NHS in England has been launched to supply e-content in the form of electronic journals and bibliographic databases (Turner et al 2002). This will generate an explosion in the provision of Internet based knowledge services directed at the NHS. The exploitation of new technologies to widen access to information has been a major driver in recent years. The Internet has revolutionised the management of knowledge and the idea of libraries as purely collections of books is being marginalised by remote electronic access to vast amounts of information (Abbas 1997). The development of Internet based information and the advent of e-learning means that the physical library of books and journals is no longer the primary source of materials for supporting

learning. Rather, access to information and learning materials can now take place through a computer with Internet access regardless of physical location. The factors influencing the future direction of NHS libraries is illustrated schematically in diagram 1:

1:

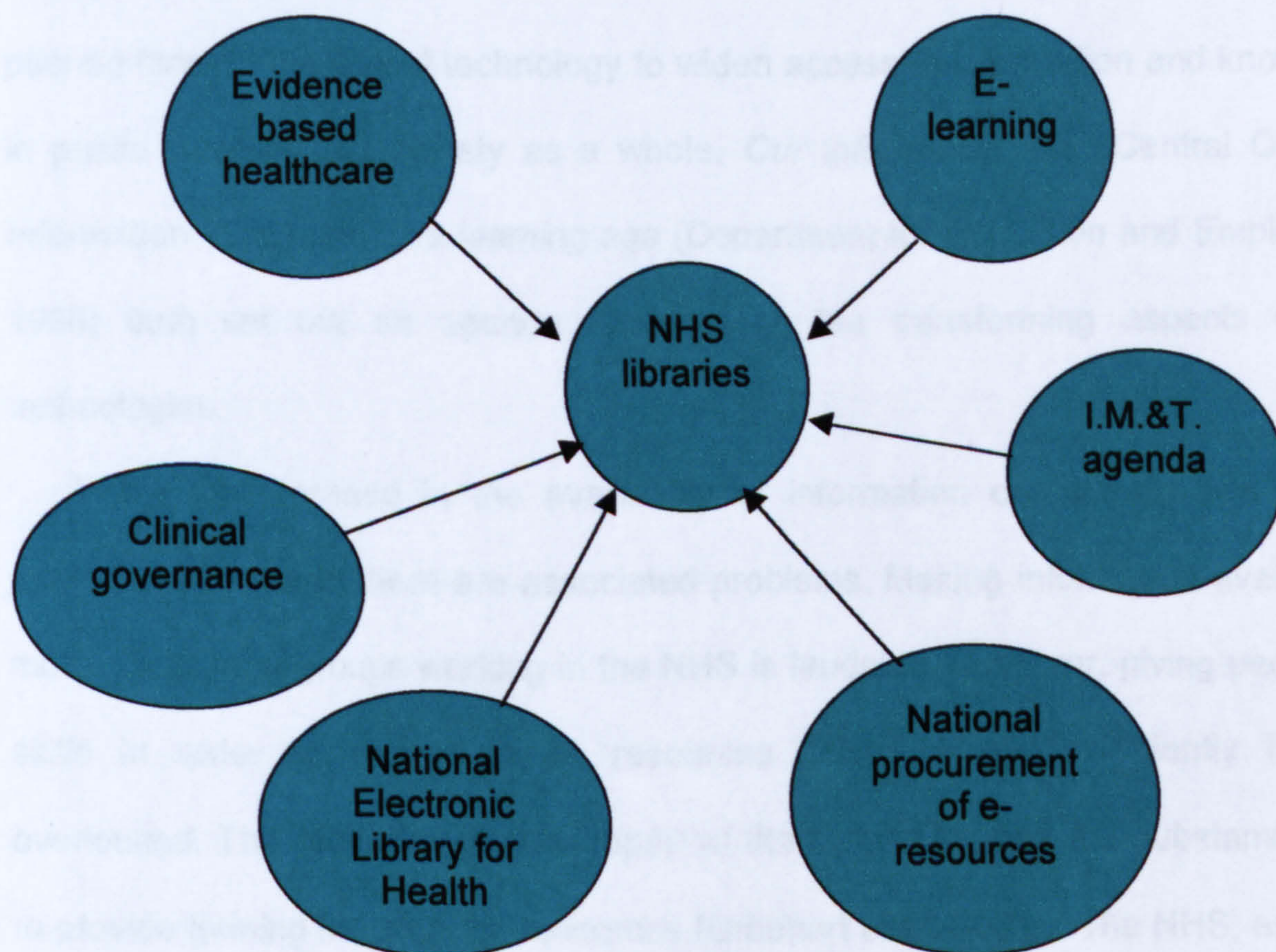


Diagram 1: Factors influencing NHS libraries

This explosion of Internet based health information has a number of important implications for librarians. Librarians, as information professionals, are well placed to play an active and expanded part in the “information age”. However, there is a need to re-define their role (Marfleet and Kelly 1999). The changes brought about by new technologies have seen a paradigm shift in what is expected of a librarian. The custodian of books has been replaced by the image of librarian acting as facilitator, trainer and information broker (Gray 1997). In this new model the librarian becomes the most important resource in the library (Gray 1997; Gray 1999; Sackett et al 1996). These changes are affecting the profession of librarianship as a whole. In higher education (H.E.) there was early recognition of the need to shift the focus of

library services to electronic provision and an acknowledgement of the challenges this presented staff. The seminal lecture given by Creth (1996) pointed to the future direction of the networked library. Creth spoke of the magnitude of fundamental changes that would need to take place. More recently government initiatives have pushed forward the use of technology to widen access to information and knowledge in public libraries and society as a whole. *Our information age* (Central Office of Information 1998) and *The learning age* (Department for Education and Employment 1998) both set out an agenda focusing on the transforming aspects of new technologies.

While the increase in the availability of information enabled by the Internet continues to expand there are associated problems. Making information available to multi-disciplinary groups working in the NHS is laudable. However, giving people the skills in order to access these resources effectively and efficiently is often overlooked. The recent evaluation report of the NeLH stressed the substantial need to provide training in using the resources (Urquhart et al. 2001). The NHS, as one of the largest employers in Europe, has a huge task in training its staff to use information effectively. The EVINCE study looked at the value of information to nursing continuing education and found that around 50% of nursing professionals could not effectively identify and use information resources (Davies et al. 1997). There is an obvious need to provide training on accessing and using information resources.

Librarians in higher education and the healthcare sector have always provided some sort of training in the form of user education. This aspect of librarianship has been increasingly recognised as potentially having a positive impact in the NHS. The potential role librarians can take as an educator is seen as crucial in supporting clinical governance and evidence based practice. User education has previously

focused on introducing users to library services by way of library induction. Sometimes this is followed up by training on how to use library tools such as the on-line public access catalogue (OPAC) and bibliographic databases. The main purpose of this has been to help library users to locate resources held in the library, commonly referred to as user independence. For example, using the OPAC to locate books and databases to locate journal articles. The emphasis has been on using the physical library and the training given has been very library focused and mechanical, focusing on informing users about library services and the use of library tools. This pattern is possibly the product of three things. Firstly, librarians have taught the things they think their users should know to become self-supporting users of the library (Friden 1996). Secondly, library skills have been viewed as an academic skill and user education was designed to support undergraduate and postgraduate education (Murphy 2000). Thirdly, librarians are not trained to teach or train during their own professional education. A study carried out for the EduLib project found that most librarians did not expect to be involved in teaching (Burke and Millar 1997). Despite this, there has been a marked increase in the number of librarians specifically employed to train and educate.

The advent of evidence based healthcare has meant clinicians need to be skilled in locating relevant research findings and then need to have the ability to sift the quality research from the poor research. This need comes not from formal educational requirements but rather from the need to provide quality patient care. This shift in information use involves a conceptual approach to finding information and the use of problem solving skills (Estrin 1998; King 1987). If library user education is to meet these needs it must be re-defined and the librarian's role needs to become one of educator with a far more user-focused approach to information needs. In this new model librarians also need to take responsibility for teaching the

whole gambit of information skills – from deciding what information is required, using the appropriate sources to find the information, ensuring the search strategy is focused and critically appraising the results of the search. This moves the sphere of librarian involvement into new territory and shifts the focus from training to educating. The two terms are often used interchangeably but actually mean different things. King (1987) uses the following definitions:

Training: “a process of developing proficiency in practice or application of knowledge and skills within prescribed circumstances or standards of quality” (p87)

Education: “a process of developing knowledge and skills which involves systematic consideration of methods and outcomes within a context of principles and theory” (p87)

Much of the NHS literature and rhetorical journal literature espouses an educational role for librarians. There is also a lot of descriptive literature on how to present training sessions. However, there appears to be a gap in the literature in terms of solid research in this area (Zachert 1991). There is certainly a gap in the literature regarding librarians' attitudes towards having an educational role. Another strand to this is the fact that little research seems to have been done on whether the rhetoric in the official literature is carried through to everyday practice. As McKnight et al. (2000) state while discussing the role of librarians in the delivery of electronic journals:

“it remains unknown how much the views expressed in the professional discourse represent the practitioners' thinking” (p18).

This study aims to address some of these concerns.

1.2 Aims and objectives of the study

The aim of this study is to find out how librarians view their role in providing training and education to healthcare professionals working in the NHS. It will address these issues in light of evidence based practice and will look at whether the attitudes of librarians are reflected in the reality of their day to day work. Specific objectives are:

- Do librarians think they have an educational role?
- Do librarians think they have the right skills and knowledge to be able to take on an educational role?
- Are librarian's attitudes towards user education reflected in their work?
- Do librarians think they have a role in teaching evidence based practice and critical appraisal?
- What motivates librarians to provide user education?

These were developed during the early stages of data collection and will be discussed in more detail in the methodology chapter.

1.3 Scope and parameters

The study will look at the attitudes of librarians working in the NHS in the North West of England and will involve both semi-structured interviews and questionnaires.

The structure of this dissertation will be:

- Literature review – this will critically present an overview of the current literature. The focus will be on the attitudes of librarians to user education but will also review studies on the outcomes of user education and the reality of practice as opposed to the rhetoric of a profession.
- Methodology – this will discuss the variety of methods available to the researcher and will describe and justify the methods chosen to collect and

analyse data. Also, there will be a discussion on how the aims and objectives of the study were developed.

- Data collection – this will be an honest discussion of the process of data collection and any problems encountered.
- Results– the results will be presented in a thematic way using pie-charts where appropriate.
- Discussion – this will be a critical discussion of the results in light of the literature review and aims and objectives of the study.
- Conclusion – a critical discussion of whether the project has met the stated aims and objectives, overall conclusions and, if any appear, suggested areas for further study.

1.4 Summary

The NHS is undergoing major changes and government initiatives such as clinical governance and the national I.M.&T. strategy are having an impact on the role of libraries. The increasing use of the Internet as a means to provide evidence based information to support clinical practice has moved NHS libraries away from purely supporting academic undergraduate and postgraduate education. The focus is now much more on supporting clinical practice and quality patient care. Both the explosion in information provision, brought about by nationally available resources such as the NeLH, and the need to base clinical care on the best available evidence has meant there is a growing demand for healthcare professionals to be educated in the effective use of information. Librarians are being encouraged to offer this training and education. There has been little research into the role of librarians as educators and this study aims to research the attitudes of healthcare librarians to having an educational role.

Chapter 2: Literature review

2.1 Introduction

This chapter is a critical review of the published literature concerning the educational role of healthcare librarians. Previous literature reviews on educational services in health sciences libraries have been published. Most notably, Zachert (1987) found that the literature broadly fell into three main categories, these being: description of services, reviews of the literature and advocacy. In the 1987 review the breakdown of literature was 70% descriptive, 10.5% review and 19.5% advocating librarians involvement in education. However, Dimitroff (1995) used the same categories in 1995 and found that there had been a marked shift towards descriptive articles. The actual breakdowns were: 82.1% were descriptive, 3.3% reviews and 14.6% advocacy. Little of the literature was research based (15.5%) and American librarians (81.3%) published the most articles. Dimitroff concluded “research is needed to examine the educational activities of health sciences librarians” (p423). Little seems to have changed in the past seven years. The literature search found many articles written from a personal viewpoint and describing how user education was, or should be, carried out. The “how to do it” literature has been mainly excluded from this review as it offers little insight into the attitudes of librarians.

The review undertaken has a thematic approach and looks at what is meant by user education in the NHS, what librarians’ attitudes are, and what actually happens in reality. The chapter is organised as follows: methods used to search the literature, followed by a table describing the key features of the articles identified and finally a thematic discussion of the issues raised therein.

2.2 Search strategy

The search strategy focused on the question of the attitudes of healthcare librarians' towards having an educational role. A systematic search was carried out in the following databases: LISA, CINAHL, MEDLINE, PsycInfo and Science Citation Index. All were searched from 1980 to the present day and literature from around the world was sought. In addition, the Internet was searched using the search engine Google and the directory Publ.

The following keywords and subject headings were used as appropriate:

Librarians	NHS	Attitudes	Educational
Librar*	NHS	Attitude*	Education*
"Information workers"	National Health Service	Beliefs	Train*
"Information professionals"	Healthcare		Bibliographic
	Healthcare		instruction
			Informatics/education
			Library skills

Table 1: Literature search strategy

Searches for literature from other relevant sectors and professional groups were also made. For this the keywords words above minus the terms covering librarianship were used.

2.3 Literature located

The following table presents the main literature with a brief synopsis of topics covered, quality of the research and main findings. The quality of the articles was assessed using the CASP critical appraisal checklists (Critical Appraisal Skills Programme 2002). The country of origin of the article is also indicated.

Author	Topics covered	Quality of article	Findings
Blackwelder & Dimitroff 1996	U.S. Survey regarding the image of health science librarians, surveyed healthcare professionals and librarians.	Clearly set out: lit. review, methods, discussion, conclusion. Random sampling of healthcare professionals.	Interesting in that it found healthcare professionals and librarians ranked 7 th in a list of skills needed for librarians to be successful.
Burke & Millar 1997	U.K. H.E. sector Based on the EduLib project that looked at the training and educating of the information professional.	Good report of EduLib, section of particular interest discusses a training needs analysis of educational needs of librarians	Found that most newly qualified librarians didn't expect to be involved in teaching and felt they were "in at the deep end" without any training or support
Collington 1998	U.K. Looks at the role of the midwife as educator. Investigates "the extent to which midwives saw themselves as educators"	Good quality. Mixture of qualitative and quantitative approaches taken. Clearly set out	Midwives must share their knowledge. Midwifery education did not prepare them for an educational role. Govt. policy imposed constraints. NHS ideology conflicts with realities of midwives' day to day work.
Dimitroff 1995	U.S. Literature review on educational services in health libraries 1987-1994. Updates the Zachert lit. review.	Good review article	Uses same categories as Zachert and finds: 82.1% descriptive 14.6% advocacy 3.3% reviews. 123 articles identified. Concludes there is a major need for research related to the educational activity of healthcare librarians.
Donnelly 2000	U.S. H.E. sector Personal view on what happens when librarians become teachers. Not healthcare related but of interest because of discussion of role.	Descriptive	N/A
Douglas 1999	U.S. Report on personal role as librarian and teacher in a university. Not healthcare related but of interest because of discussion of role.	Descriptive	N/A

Author	Topics covered	Quality of article	Findings
Erickson & Warner 1998	U.S. Impact of an individual tutorial session on using MEDLINE. Three groups – one as control, one given hands on tutorial, one given demonstration.	RCT but flawed. Claims to be blinded – how can you blind a database tutorial? Also, user interface was changed mid way.	Found no differences in terms of recall, precision and satisfaction with search results post training.
Harris 1992	U.S. Study to identify the positions taken by academic, public and special librarians with respect to the role of bibliographic instruction.	Clear and good Questionnaire used statements with a 7 point scale.	Found very clear differences in attitudes between the groups. Academic librarians endorsed user ed., special librarians did not and public librarians in between.
Ikeda & Schwartz 1992	U.S. A follow up study of 3 rd year pharmacy students who had a literature searching component as part of their academic course.	Difficult to see how the results could be specifically attributed to the training given.	Found that the training had a significant impact (but see previous comments).
King 1987	U.S. Creating educational programs in libraries. Very good discussion of the issues around education versus training, conceptual basis of education etc.	Excellent discussion article.	N/A
King 1988a	U.S. Discussion of the procedural v. conceptual aspects of education in libraries. Discusses the perspectives of profession groupings and how this effects how and what librarians teach their users.	Excellent discussion article.	N/A
King 1988b	U.S. Discusses the cost of user education and promotes the view that user education needs to be very user focused.	Perhaps a little dated but still very useful discussion.	N/A
Maynard 2002	U.K. Training needs analysis of NHS librarians	Good research article. Used a questionnaire to collect data.	Found that 42.7% had received training on how to train; 36.3% had received training on evidence based decision making.

Author	Topics covered	Quality of article	Findings
McKibbon et al. 1990	Canada Novice end users were given three hours training on MEDLINE.	No full description of method but summary points to a good methodology.	Found that after three hours the novice end users could search but recall and precision was lower than experienced users and librarians.
McKnight, Liangzhi, Harker, & Phillips 2000	U.K. H.E. sector Reports results of a study on the role of librarians in the delivery of e-journals. Looked at whether actions matched perceived roles.	Good, log of activities, interview survey, transcripts of workshop discussions, postal questionnaire.	Interview survey – nearly half of the librarians thought it important to provide training, in postal questionnaire 51% agreed. But – found that in practice only one library carried out regular training and ad hoc training only in two more sites (out of 13 possible sites).
Patterson & Howell 1990	U.S. H.E. sector Study assessing the attitudes of bibliographic instruction librarians to their role.	Good. Questionnaire sent to a systematic sample of 226, response rate of 49.6%.	48.9% had no teaching experience 42% believed they were adequately proficient in educational methodology 47% not apprehensive about teaching 85.7% had no library user education module as part of their degree.
Rankin & Williams Sayre 1993	U.S. Health sector Discussion of the context of librarians educational role including H.E. continuing professional development, informatics, patient education.	Interesting discussion, much of what was written in 1993 mirrors the situation in the UK today.	N/A
Wilson 1979	U.S. Discussion about librarians as teachers – sees this as an "organisational fiction".	Interesting in that it argues against librarians having an educational role.	N/A
Yeoh 1991	U.K. H.E. Describes the appointment of a "tutor librarian" in a Nursing School	Descriptive	N/A
Zachert 1987	U.S. A review of the literature on educational services in health science libraries 1975-1986.	Clear, including literature search.	123 articles analysed Found articles fell into three categories: descriptions of services (70%), review of trends/current situation (10.5%), advocating educational services as a role for libraries (19.5%).

Table 2: Literature located

2.4 Discussion

2.4.1 What is user education in the NHS?

Unfortunately, there is no standard definition of what user education is. The term can be used to mean a wide variety of different things from a basic tour of the library to advanced database searching and critical appraisal training. The literature points to different aspects of user education within the NHS. The EVINCE study (Davies et al 1997) states that:

“user education ...encompasses formal and informal programmes, face to face teaching and the provision of self study guides” (p135)

The study stresses the need to learn about the process of searching and states that:

“learning about the process of searching is as important as the results of the search. User education should be seen to be more than training on the use of CD-ROM databases” (p136)

The LINC Health Panel (1997) has developed an accreditation tool used to assess the quality of NHS libraries. This tool is widely used in the North West of England and states that:

“a comprehensive training programme [should exist] for library users which covers a wide range of skills relating to information retrieval, data management, critical appraisal and evaluation and application of research findings” (p116)

While the clinical governance paper (Department of Health 2001) states that:

“health science librarians have an increasingly significant role in training people to access and search knowledge resources in different kinds of medium” (Appendix 7 p54)

The Library Association (2001) salary guide for the health sector states that:

“The librarian has a central educational role, providing teaching, learning and research support..... [and] teach users to search the Internet and bibliographic and text databases, and can also offer critical appraisal skills training” (p5)

The definition of user education in the NHS therefore goes further than purely focusing on the mechanical use of library tools. The official and professional literature

stresses the educational role of the librarian and promotes their skills in critical appraisal. This is especially the case in the LINC accreditation guide and it is noteworthy that the accreditation process stresses that critical appraisal training should be provided. The focus of the official literature is on providing training to support the range of information skills to needed to access and utilise the evidence base. The basic stages of evidence based practice can be summed up as asking, finding, appraising and implementing. This means being able to formulate a search strategy, effectively utilise that strategy to search and then appraising the resulting journal articles before assessing the usefulness of the evidence to the local situation. What this suggests in terms of the necessary library skills is a far more conceptual model than what is traditionally offered by user education.

Apart from the literature advocating a wider educational role for librarians there is little discussion about transfer of knowledge and the conceptualisation of user education in any sector. An exception to this is King's series of articles on educational programmes in libraries. These articles have a strong focus on the concepts of information use and discuss bibliographic instruction as only the beginning of the librarian's educational role (King 1987; King 1988a). King states that the emphasis in user education has been on the procedural rather than the conceptual. As a profession, librarians have failed to grapple with the issue of what the client needs to know as opposed to what librarians think should be taught. Librarians, it is argued, need to step outside the library and develop an awareness of the professional education and training of the client group (King 1988b). This fits in with what librarians are being asked to do in the NHS, emphasising the use of information to support evidence based clinical care and the need to provide training to facilitate this.

2.4.2 Attitudes of librarians

In 1993 Rankin and Williams Sayre wrote of the changing educational role of health science librarians in North America. Changes in the education of healthcare professionals, the impact of lifelong learning and continuing professional development, use of information technology and the need to practice evidence based healthcare were all identified by Rankin and Williams Sayre as pointers to the future direction of healthcare librarianship. All these aspects potentially expand the role of the librarian as educator. The article mirrors the current climate in the NHS of today. Some NHS regions have led the way in training librarians for the expanding role now being asked of them. For example, in the Oxford area healthcare librarians were involved in a "librarian for the 21st century" training programme. A major component of this was training librarians to train (Palmer 2000). However, there seems to have been little research into how librarians view their roles as educators.

Only two studies directly addressed the attitudes of librarians to user education. Neither study was based in the U.K. and neither focused on healthcare librarians. In a 1992 study Harris researched the attitudes of different groups of librarians to bibliographic instruction. Harris found that academic, special and public librarians had very different views about bibliographic instruction. Academic librarians favoured instruction, special librarians favoured information provision and public librarians fell in between. Harris concluded that the main difference was that academic librarians saw user independence as an important factor and that instruction gave users this independence. Within the special library setting delivery of information was seen as the key factor and the users' knowledge about the library and library tools was incidental. This could point to a different model for NHS libraries. At present though, the provision of expert search services is rarely given the same priority as user education and while the official literature focuses on training

this is unlikely to change. Patterson and Howell (1990) present the findings of a 1987 study to assess the attitudes of librarians who teach. The study utilised a postal questionnaire that was sent to a systematic sample of 226 librarians. The population group were members of the American Library Association. The study found that 53% of librarians were apprehensive about teaching and that many librarians “are not educationally, or in many cases, psychologically prepared” for a teaching role (p514).

While the Patterson and Howell study is rather dated the findings are backed up by a more recent U.K. study assessing the EduLib project. This higher education project aimed to develop the training skills of academic librarians. The report found that most librarians starting out on their careers did not expect to be involved in formal teaching (Burke and Millar 1997). The EduLib project also found that many librarians felt “thrown in at the deep end” (p10) with little support when placed in this role. Librarians seem not to have been prepared either with the skills or knowledge needed to teach, neither do they appear to have the view that teaching would be part of their role (Burke and Millar 1997; Patterson and Howell 1990). Few library schools appear to teach user education as part of their undergraduate and postgraduate courses. The *Procedures for accreditation of courses* issued jointly by the Library Association and Institute of Information Scientists makes little mention of user education apart from “user studies and education” (p5). There is no clear indication of what this means but it does form one of the checklist statements. Equally, the Quality Assurance Agency for Higher Education benchmark statements for librarianship only refers briefly to graduates needing the “ability to educate their users as appropriate” (p2).

2.4.3 Motivation to provide user education

The need to educate healthcare professionals to effectively use library resources is not new. In 1931 Runge called for library instruction to be made compulsory for medical students. With the agenda focusing on education and training and better information skills, it seems obvious that user education will continue to have a high priority. User education is often viewed as a chance to raise the profile of the library service and the librarian. Harris (1992) describes this as “status enhancing”. Wilson (1979) though argues that the librarian as teacher is an “organisational fiction”. She argues that an organisational fiction provides a comforting self-image that bolsters a status claim. Furthermore, Wilson argues that user education would be better described as “informing” rather than teaching. The Wilson article is dated, and information provision has changed beyond recognition since 1979. With the advent of the Internet and end user searching there was bound to be an ever increasing demand from users for librarians to provide training. However, the term “informing” is still relevant in any study about user education. It could be argued that much of what is currently offered by user education is informing library users rather than educating them in the better use of information.

There is a big gap in the literature around the impact of user education. While a substantial amount of literature has been published about the evaluation of training sessions these tend to focus on the mechanics of training. Little work appears to have been done around the impact of user education on searching skills or in terms of impact on clinical care. Three studies were located that pertained to the long-term impact of training done by librarians. McKibbon et al (1990) found that after three hours of training novice end-users were able to use MEDLINE but had lower recall and precision in terms of search results than experienced end-users and librarians. They also found that the end-users did not use advanced features such as MeSH.

Ikeda and Schwartz (1992) did a follow up study of pharmacy students who had been offered instruction in online searching during their third year of academic study. This study concluded that the instruction had resulted in a significant impact. The study seems flawed though as little effort is made to link the follow up study with the actual instruction that took place. Also, the quality of searching was not assessed, rather whether the students went on to do their own searches. More recently, Erickson and Warner (1998) researched the impact of an individual tutorial session on MEDLINE use. This study claims to be a double blinded randomised controlled trial. It is difficult to envisage how this can be the case in terms of attending a training session. The study was further flawed when the MEDLINE user interface was changed in between the training taking place and the end-user searches.

What this gap in the literature illustrates are the difficulties posed in trying to assess the impact of a training session, and the problems of assessing the impact user education could have on patient care. No study as yet seems to have succeeded in addressing this question.

2.4.4 *Do librarians' attitudes carry through to their daily activities?*

A recent training needs analysis of NHS librarians in the UK found that 77.3% of respondents cited training users as a regular task (Maynard 2002). The involvement of librarians in user education appears to be substantial if the professional literature is a correct reflection of activity. However, a study on the role of librarians in the delivery of electronic journals (McKnight et al 2000) found that much of the professional literature was optimistic and that it was largely "normative narration" (p118). Normative narration is defined as:

"rhetoric of discussion which sets forth, by way of logical arguments or personal experience, what librarians *should* do"

McKnight et al carried out interviews and found that half the librarians thought it important to provide training on using e-journals, this was mirrored by 51% in a postal questionnaire. However, when the study looked at actual practice only one library regularly carried out training and ad hoc training only happened in two more sites (out of a possible thirteen). The reality of day to day work did not fit in with the rhetoric of the sector. This was found to be the case in a study on the role of midwives as educators which concluded "NHS ideology appears to conflict with the realities of midwives' day to day work" (Collington 1998 p496). This is relevant as much of the NHS and professional literature stresses the role of librarian as educator yet little has been written about the reality of this rhetoric.

2.5 Summary

Much of the literature on this topic is from North America and there is little recent discussion on the role of librarian as educator. There does not appear to be a single definition of what user education is. However, some influential documents such as the LINC accreditation guide and the Library Association's salary guide, stress the educational role of librarians and their ability to provide training across the spectrum of information skills needed to support evidence based practice. The literature points to librarians being unprepared to have an educational role and that often they do not expect such a role when they qualified. There is little research on the outcomes of user education and no studies assessing the impact of user education on patient care. Two studies found that the literature in their field did not correspond with the reality of working practice and found that much of the literature was optimistic (McKnight et al 2000; Collington 1998). The literature reviews carried out by Zachert (1987) and Dimitroff (1995) found that the literature was mainly descriptive and little seems to have changed since then. The literature review was

used to inform the choice of method and the next chapter is a review of how choices were made as to which methods to use, and presents the process of data collection.

Chapter 3: Methodology and data collection

3.1 Introduction

Methodology in research design is crucially important. Research itself can be described as “trying to answer a question about the nature of things in an organised, recognised, replicable way” (Janes 1999a p212). It is with the use of methodology that this becomes possible. Without an appropriate method, research has no sound theoretical basis. The methods chosen to carry out any research need to be carefully selected and matched to the requirements of the study (Robson 1993). This study utilised both semi-structured interviews and a postal questionnaire. This chapter discusses how the decisions about methods were made and how the data was collected. The chapter will look at the aims and objectives of the study and will discuss how they were developed. The objectives will be matched to the different type of data required. This in turn will be matched to the most appropriate method and various methods will be reviewed. The design and format of the interviews and questionnaire will be critically reviewed. Sampling techniques and methods of data analysis will be discussed. Finally, there will be a critical review of the data collection.

3.2 Data required

The original study question does not present a clear hypotheses or theory to prove or disprove. Rather, the study intends to gain an insight into the attitudes of librarians. Attitudes can be described as a “tendency to respond in a certain manner” and are usually part of a wider compound of values and beliefs (Oppenheim 1992 p174). As such attitudes are complex and difficult to unravel and can be viewed as intricate and puzzling. Mason (1996) refers an “intellectual puzzle” as forming the

basis of any research (p6). This puzzle is “something that the researcher wishes to explain” (p6). From this puzzle, questions are formulated and these are central to the research design. In turn, these research questions become the aims and objectives of the research. The broad aim of this study was clear from the outset: to find out how healthcare librarians view their role as educators. The intellectual puzzle in this case can be described as “fuzzy” or “unclear” (Robson 1993 p256). As demonstrated by the literature review few studies have been carried out in this topic area. Both of the two studies previously carried out on the attitudes of librarians to user education were from North America (Harris 1992; Patterson and Howell 1990). Neither focused on healthcare librarians and both are now rather dated. So while the studies were helpful they did not necessarily reflect the data needed in this study.

As a result of the nature of the research question a decision was made to allow the narrower objectives of the study to develop as the literature review and initial data collection progressed. As Strauss and Corbin (1990) state in research “one begins with an area of study and what is relevant to that area is allowed to emerge” (p23). This is referred to as grounded theory and gives “preference to the data and the field under study as against theoretical assumptions” (Flick 1998 p41). It was decided to use this method because of the “fuzzy” nature of the research question. The literature review generated questions that needed addressing and the analysis of the data generated by the interviews was used to focus the objectives. By the time the questionnaire was designed the objectives had been firmly set.

Notably, the aim of the study appeared to indicate that some quantitative data would be required but that qualitative data was also needed as it is best suited to a study of attitudes and beliefs. When carrying out any study it is important to match the data requirements of the aims and objectives to the choice of method. The overall aim of this study was to find out what librarians think about having an educational

role. The narrower objectives are detailed below and are matched to data requirements:

Objective:	Type of data:
Do librarians think they have an educational role?	Beliefs and attitudes
Do librarians think they have the right skills and knowledge to be able to take on an educational role?	Qualifications Background information Beliefs and attitudes
Are librarians' attitudes towards user education reflected in their work?	Actual types of user education carried out and some types are not carried out Amount of user education carried out
Do librarians think they have a role in teaching evidence based practice and critical appraisal?	Beliefs and attitudes
What motivates librarians to provide user education?	Different reasons user education can take place

Table 3

3.3 Methods considered

There are a number of different methods available to the researcher. Some of these were obviously unsuited to the aims of this study. It would have been impossible to carry out any form of experimental research such as a controlled trial. This method would not have produced the data required to answer the research question. As discussed above the type of data required best suited a mixture of quantitative and qualitative methods. Four different methods were considered to collect the data. Each had distinct advantages and disadvantages. These are detailed in the following table:

Method	Pros	Cons
Questionnaires	Efficient use of time Anonymity Standardised Could reveal consensus or lack of consensus	Superficial data Limited use for complex issues? Response rates tend to be low Respondents are self-selecting
Interviews	Rich data Flexible – can follow up new ideas Good for complex issues Use of interviewee's own terminology	Time consuming Difficult to analyse Need co-operation and access Interviewer bias
Diaries/logs	Immediate recording of thoughts Use of own terminology	Need a lot of co-operation Time consuming for the participants and needs a sustained commitment Difficult to analyse Record "doing" rather than attitudes?
Focus groups	Good for complex issues Allows for exploration of ideas Provides insights into ideas Could provide consensus/lack of consensus	Influenced by strong views of one person? Bias Group dynamics Difficult to analyse Difficult to organise

Table 4

It was decided to use qualitative semi-structured interviews followed by a more quantifiable questionnaire survey with some open questions. The use of diaries and logs would have demanded too much time and commitment from the librarians. It would also have been harder to get librarians to record their viewpoints and attitudes to user education. This method would have been more suitable if the data required was actual occurrences of user education as opposed to attitudes towards it. The use of focus groups was considered but it was decided that the dynamics of any group would have been too difficult to manage. This would particularly be the case in trying to measure attitudes. The study question was of a fuzzy, unclear nature and this problem scenario best suited a qualitative approach early on in the project (Silverman 2000; Oppenheim 1992; Robson 1993). Using qualitative interviews followed by a questionnaire follows a recognised priority-sequence model of

qualitative followed by quantitative data collection (Morgan 1998). Using interviews to gain background information and insight to frame and structure the design of the questionnaires meant that the questionnaire could be more relevant and applicable to the research objectives (Morgan 1998; Bowling 1997). The use of interviews also generated valid and rich data, which could be incorporated into the data analysis. This approach used the strengths of one method to enhance another method (Morgan 1998). While more interviews could have been carried out it was decided to use a questionnaire to enable a wider group of librarians to be surveyed. This also made more efficient use of the time available to the researcher (Robson 1993). The use of a confidential postal questionnaire may also have helped the truthfulness of the answers received. As seen in the introduction, there is currently an emphasis on librarians having an educational role. As such the “social desirability” factor may be a problem. This means that librarians may say what they think they should be saying to reflect what is presently being advocated in the literature (Krosnick 1999).

3.4 Sampling

Mason (1996) defines sampling as:

“sampling and selection are principles and procedures used to identify, choose, and gain access to relevant units which will be used for data generation by any method” (p83)

A sample is a selection from a wider population (Robson 1993). The widest population in terms of this study could have been all healthcare librarians in the United Kingdom. Sampling can have a fundamental effect on the quality and usefulness of research findings whatever method is used (Reed 1996). In quantitative research, sampling is usually driven by the need to prove the generalisability of the research findings and to quantify the distribution of key characteristics (Reed 1996). Sampling in qualitative research is concerned with understanding and clarifying the

research questions (Reed 1996). The nature of the aims and objectives of the research question directed the decisions made about sampling in this study. Rather than find any statistically relevant phenomena the study aimed to discover more about the attitudes and propensity of healthcare librarians to performing an educational role. The population for this study was librarians working in the NHS in the North West of England. At the time of the start of the study (1998) the North West of England formed a distinct part of the NHS, as at that time it was still organised along regional lines. Since then the regions have been abolished. However, the “regional” structure of healthcare libraries units and regional directors of libraries has not completely disappeared and so the population group is still deemed to be valid. Names and contact details for the librarians were obtained from the contacts database of the North West Healthcare Libraries Unit.

3.4.1 Sampling - interviews

The function of the interviews was primarily to illuminate the topic of the study. This meant that discovering new themes and ideas was important. The sampling procedure needed to reflect this. New opportunities to explore topics as they emerged had to be taken (Reed 1996). The sampling procedure aimed to seek out rich sources of qualitative data (Reed 1996) from within the population group. However, the sampling method used was still explicit and systematic (Reed 1996; Mason 1996). This method is often referred to as theoretical sampling and has three features: choosing cases in terms of the research question, choosing “deviant” cases and changing the size of the sample during the research (Silverman 2000). As such the sampling developed as the data generation progressed (Mason 1996), and it also involved actively looking for “negative instances” (Mason 1996, Mays and Pope 2000; Reed 1996). Negative instances can be described as “elements in the data that

contradict, or seem to contradict, the emerging explanation of the phenomena under study" (Mays and Pope 2000 p51). In all, five interviews were conducted. Individuals were selected at random from the population group and after a brief telephone interview a decision was made as to whether to request an in-depth interview. This decision was based on the librarian indicating strong opinions on whether or not librarians should be involved in user education and a willingness to be interviewed further.

3.4.2 *Sampling - questionnaire*

The questionnaire was sent out to professionally qualified librarians working in the NHS in the North West region of England. This included 63 libraries staffed by 88 librarians in total. The libraries serve a range of organisations and user groups. These include district general hospitals, teaching hospitals, mental health trusts, primary care trust and health authorities (at the time the questionnaires were sent out many of the health authority libraries were transferring to primary care trusts). The libraries vary in size from one-person libraries to libraries employing more than three qualified librarians. Most, but not all, of the libraries provide services for multi-disciplinary groups of staff and students. In all, 88 librarians were identified and all of these were sent a questionnaire and hence there was no random sampling.

3.5 Interview design and data collection

3.5.1 *Choice of questions for interviews*

The interviews followed the idea of "conversations with a purpose" (Burgess as cited by Mason 1996 p.38). This approach, while superficially appearing to be informal, actually requires a lot of thought and planning (Mason 1996). Themes emerging from the literature review and informal conversations with workers in the

field were broken down into smaller topic areas. From these potential questions were developed and cross-referenced (Mason 1996; Silverman 2000). As the interviews progressed decisions were made as to re-wording questions, leaving out questions or including additional questions (Robson 1993). The basis for these decisions was guided by the interviewee's responses to questions. If a response was worthy of further investigation additional questions were asked. Likewise, if new topic areas appeared during an interview that were of interest these were followed up with the use of probes or new questions. Any new topic areas were translated into potential questions that could then be used during the subsequent interviews. The choice of a semi-structured format allowed for a reflective and interactive pattern of questions to emerge (Mason 1996) and this aided the flow of questioning. When formulating potential questions, and during the interview process itself, care was taken to avoid the following pitfalls identified by Robson (1993 p232):

- Long questions
- Leading questions
- Double-barrelled questions
- Jargon
- Biased questions

Probes were also used to prompt the interviewee to expand on an answer if it was felt that the interviewee had not fully expanded on an answer (Robson 1993; Bowling 2002). The probes used included short periods of silence, repeating the interviewee's reply and comments such as "anything else" and "could you tell me more".

3.5.2 *Format of interviews*

While there was no rigid sequence of questions a loose pattern of introduction, warm-up, main questions and closure was adhered to (Robson 1993). The

introduction consisted of a brief overview of the research project and an assurance of confidentiality and anonymity. Permission to record the interview was also requested. The warm-up generally involved questions around the job description and role of the librarian. The main body of the interview consisted of questions relating to attitudes. Closure involved thanking the interviewee for their time, a brief overview of what would happen to the data produced and a request to contact the interviewee if any points needed clarifying during data analysis. The sets of potential question areas were listed in a rough interview guide in a loose thematic order (Flick 1998) (see appendix 1). Decisions were made during the interviews as to which questions to ask and in what order. This was done giving attention to the substance, style, scope and sequence of questions (Mason 1993). The nature of the research question meant that new areas of discussion did arise during most of the interviews. These were followed up and the ability to do this proved to be one of the strengths of using interviews (Mason 1996; Robson 1993). While the interviews progressed decisions on breadth versus depth needed to be made (Mason 1996) and this was dependent on what topic areas proved most interesting. For instance, one interviewee was keen to discuss critical appraisal skills training and so was questioned in more depth on this topic despite this meaning fewer questions could be asked on other topic areas.

3.5.3 Interviews – data collection

In all five interviews were conducted. The number of interviews is perhaps low but a lot of rich data had been collected at this point. Interviewees were given a choice of locations for which to carry out the interviews. All opted to be interviewed in their own work setting. This posed no problems in four of the interviews and the interviewees ensured there were no interruptions, which can be one of the pitfalls of using the interviewee's work place as a setting. However, in one case the interview

was interrupted and did consequently have to be postponed due to the librarian needing to deal with an urgent problem. This would probably have been the case wherever the interview had been held. However, it did highlight the problems of arranging interviews and the time consuming nature of this method.

All but two interviews were taped using a small tape recorder. Permission to do this was given by each of the interviewees. One person felt uncomfortable being recorded and so detailed notes were taken instead. During another one of the interviews the tape recorder failed to work. The problem was identified almost immediately and the brief notes that had been taken during this interview were added to. The interviewee was then telephoned and asked to clarify anything that was unclear or appeared not to have been noted. All the interviews or notes were transcribed using word processing software.

3.5.4 Interviews - analysis techniques

Data analysis happened interactively with data generation as this shaped the on-going data collection (Pope et al 2000). The aims and objectives of the project were continually referred to in order to direct the analysis of data. The themes that emerged from the literature review were also used as a reference point. A framework approach to data analysis was used which consisted of:

- Familiarisation with the data – involved listening to the tapes, reading the transcripts and notes
- Identifying a thematic framework – noting all the key issues and concepts that emerged
- Indexing the data – identifying which bits of the data related to the thematic framework

- **Sorting the data – using the cut and paste facility to re-organise the data into categories**

(adapted from Pope et al 2000 p116).

This meant that the data was organised into categories or “bags of data” as Mason (1996) refers to them. While there is specific software available to analyse textual data, for example NUDI*ST, the quantity of data did not justify the purchase of software. Instead as suggested by Pope et al (2000) a word processor was used to cut and paste sections of data organising it to appear thematically. Throughout the process the data was thought of as being an “unfinished resource” that could be used as a starting point for more questions (Mason 1996 p115). This meant continually reflecting on and questioning the data.

3.6 Questionnaire – design and data collection

The choice of questions to be included in the questionnaire was directed by the analysis of the interviews in conjunction with referral to the aims and objectives of the study. This meant there was continual interaction between the intellectual puzzle, data already gathered and the potential questions (Mason 1996). Broad question areas were broken down into narrower questions and from these a mixture of open and closed questions and attitude scales were developed. Closed questions were used to collect data on background characteristics of the librarians. In addition, closed questions were used to find out what type of user education was being carried out in reality. Open questions were used to allow the librarians to expand on their attitudes and idea. The scaled questions were used to elicit data about attitudes. To formulate the attitudinal scales the thematically organised bags of data were used to form “item pools” (Oppenheim 1992). This was done using a grid structure using broad themes as the horizontal axis (Jackson and Furnham 2001) (see appendix 2).

From this relevant questions began to emerge. The decisions as to which questions to include involved ensuring that the data generated would be able to answer the research question. Questions were kept short and care was taken to ensure that no double-barrelled, negative or leading questions were included. Care was also taken to make the questionnaire reasonably short. A draft of the questionnaire was piloted and because of this a few questions were re-worded. (see appendix 3 for the questionnaire)

3.6.1 *Format of questionnaire*

The design and format of a questionnaire can have a substantial effect on the success it has in generating useful data. After choosing the most appropriate questions it is important to plan the order and layout in which they will appear (Janes 1999a). The questionnaire was designed so that background information such as years worked, job title and professional qualifications was collected first. This section of questions was then followed by questions with five point attitude scales. These gave the option to agree strongly, agree, unsure, disagree or disagree strongly. It was decided to include a middle point option of unsure as the inclusion or exclusion of the middle alternative has been seen not to have an effect (Jackson and Furnham 2001; Robson 1993). However, including a middle option can be less frustrating for the respondent (Jackson and Furnham 2001). Following the attitude scales the questions focused on what user education is actually carried out in practice. These questions were presented in a closed question format with different options for why a particular aspect of user education was not carried out. These questions were deliberately placed after the attitude scales to try to get the respondents to think about their attitudes towards user education before they considered their actual day to day practice. Open questions were then included to allow the respondents to add

any further comments they had. Respondents were also invited to add additional comments at the end of the questionnaire. The layout of the questionnaire was kept simple and concise. However, enough room was allowed to be able to comfortably answer the questions (this was checked during the pilot). Instructions on how to complete questions were included where appropriate. Where necessary the questions were pre-coded to assist in data analysis.

3.6.2 Questionnaire – data collection

The questionnaires were posted out with a covering letter (see appendix ?) and a stamped addressed envelope to encourage return. The letter was printed on headed white paper, and included a brief description as to why the research was being conducted, and a date for completion and return. The letter also assured the respondent of anonymity. The letters and envelopes were addressed to a named person. The questionnaire was posted out on a Tuesday, identified by Robson (1993) as the one of the best days to send out a questionnaire to a workplace setting. In total 88 questionnaires were posted. The response rate was 69.3% (61 respondents). This is an excellent return rate and therefore it was decided not to chase the outstanding questionnaires due to time constraints. There was one problem in the design of the questionnaire that had not been identified during the pilot. Question four asked “do you have a formal educational qualification”. The question was designed to find out how many librarians had a teaching or training qualification. A number of respondents appear to have taken it to mean any degree or academic qualification and answered accordingly.

3.6.3 Questionnaire - analysis techniques

Where appropriate questions had been pre-coded ready for data analysis. An Excel spreadsheet was designed with each column representing a variable and each row representing the record of a respondent. The data was inputted into this as the questionnaires were returned. If respondents had failed to answer a particular question a zero was used to indicate this. The data was checked after each row was completed to ensure accuracy of entry. The open-ended questions were analysed using the same method as for the interviews.

3.7 Ethical issues

Any research needs to operate within an ethical framework. As the population group for the research project consisted of NHS employees the Stockport NHS Trust ethical research procedures needed to be followed. This meant writing a letter to the Ethics Committee with details of the project. The outcome of this was that formal ethical approval was not needed (see appendix 5). Consideration was still given to ethics and respondents to the questionnaire and interviewees were given assurances of confidentiality and anonymity.

3.8 Quality issues – validity and reliability

Throughout this project a high priority was given to the quality of data generation and analysis. While traditional definitions of reliability and validity are appropriate to purely quantitative methods, they perhaps lack flexibility for a mixture of qualitative and quantitative methods. However, the issues are still important and were treated as such. Mason's definitions of reliability and validity are:

Reliability: "the accuracy of your research methods and techniques" p.24

Validity: "means that you are observing, identifying, or 'measuring' what you say you are" p.24

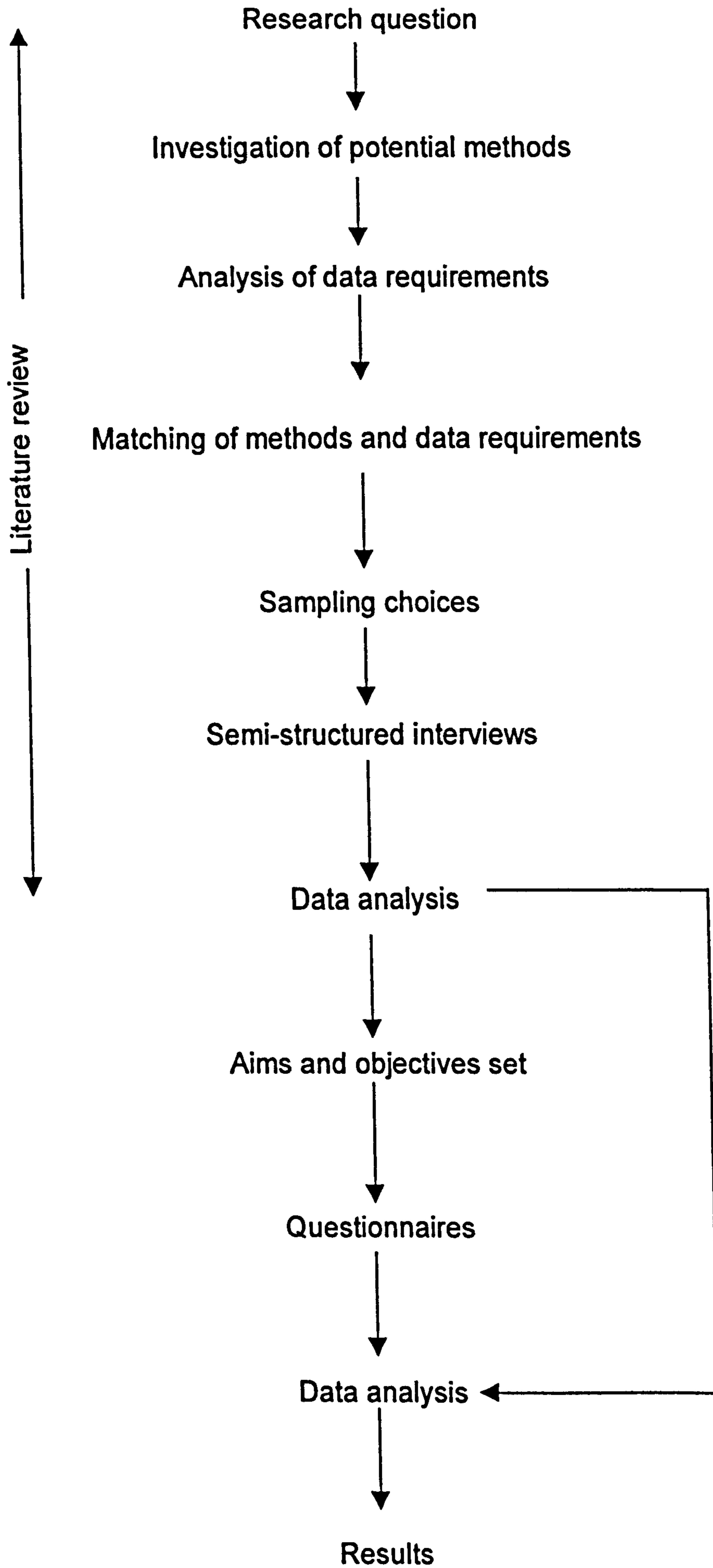
Ford-Gilboe identifies five issues that need addressing to assure quality in research: quality of data, investigator bias, quality of the research process and usefulness of the study findings (Ford-Gilboe 1995). These were dealt with during the project by stating clear and explicit reasons for choosing the methods used and honest reporting of problems, and a discussion of the issues that arose during data generation and analysis. By doing this it is hoped that reliability and validity of the research and research findings have been proved. The researcher was also aware of bringing pre-set ideas and beliefs to the project and through reflexivity during the research process aimed to avoid bias (Mays and Pope 2000). The methodology and methods aimed to be systematic and therefore strove to avoid anecdotalism (Silverman 2000).

3.9 Summary

The use of a relevant method is crucially important in any research. The methods used for the purpose of this study were chosen in view of the data requirements indicated by the aims of the research project. As the study started out with the fuzzy and unclear question around attitudes of healthcare librarians to teaching the narrower objectives were developed as the literature review progressed. These were further refined during the early stages of data collection using semi-structured interviews. Interviews were chosen to illuminate the topic as little previous literature had been published on the chosen topic area. Following the interviews, a questionnaire survey was carried out using librarians working in the NHS in the North West of England as a population group. A questionnaire was used in order to reach

a wider range and number of librarians. This method of semi-structured interviews followed by a postal questionnaire best matched the data requirements of the study. In all five interviews were carried out. The questionnaire was sent out to 88 librarians and the return rate was 69.3%. The following diagram illustrates the key stages taken in relation to methodology process and the following chapter will present the findings from both the interview and questionnaire data.

Diagram 2: the process of data collection and analysis



Chapter 4: Results

4.1 Introduction

As stated in the introduction librarians are being asked to support evidence based practice and the clinical governance agenda by extending their traditional roles. One aspect of this is the extension of library user education to cover the principles of evidence based practice, to focus on searching evidence based information and to teach critical appraisal skills. The literature review found that while much of the professional and official literature talked of librarians having an educational role little research had actually been done around attitudes to the role and the actual reality of practice. This study aimed to address these questions and this chapter will present the results of the study in a thematic way. This format has been chosen as it best reflects the aims and objectives of the study. The format of the chapter will be: background characteristics, what is user education, motivation to carry out user education, attitudes of librarians and everyday practice. Textual data from the open questions of the questionnaire and interviews will be incorporated into the results.

4.2 Background characteristics

The return rate for questionnaires was 69.3% (61 returned out of 88). The breakdown for number of years worked as a librarian was:

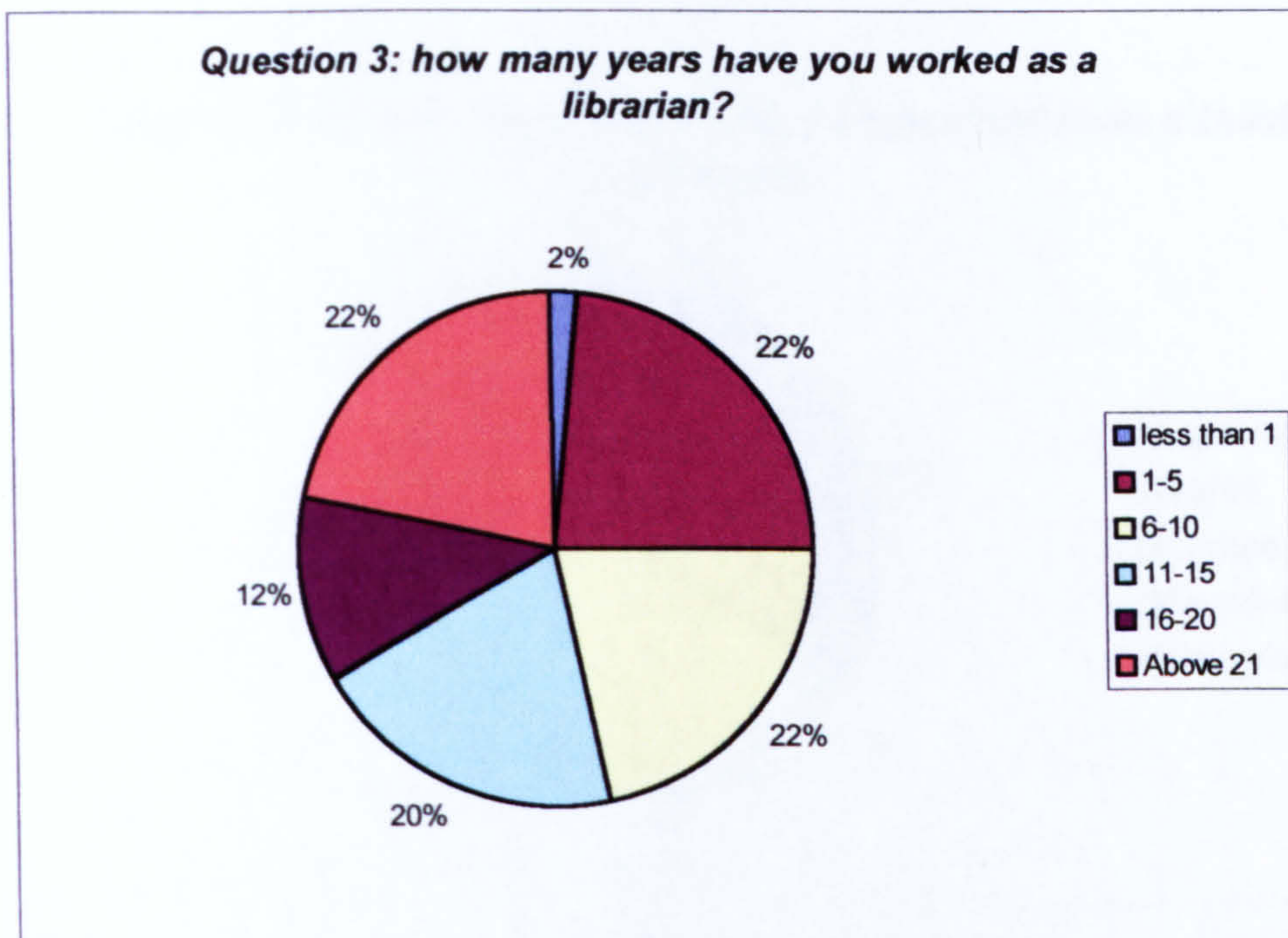


Chart 1

Of the 88 respondents 54 have user education as part of their job description. When asked if user education forms a substantial part of their role 86% agreed or agreed strongly. The result for whether they expected to be involved in user education when they qualified was that 74% agreed or agreed strongly. The majority of respondents agreed or strongly agreed that they have an educational role (93%). The question about formal educational qualification was a problem. Some respondents took the question to mean what academic qualifications did they have, whereas it should have been interpreted as what teaching/training/educational qualifications they had. Since the question was mis-interpreted the results for this question have been discarded.

4.3 What is user education?

A number of questions addressed this area. When asked if user education is about more than training on databases 98% either agreed or agreed strongly that it is. When asked if user education is more important than a book collection the answer was a little less clear, with a substantial number being unsure:

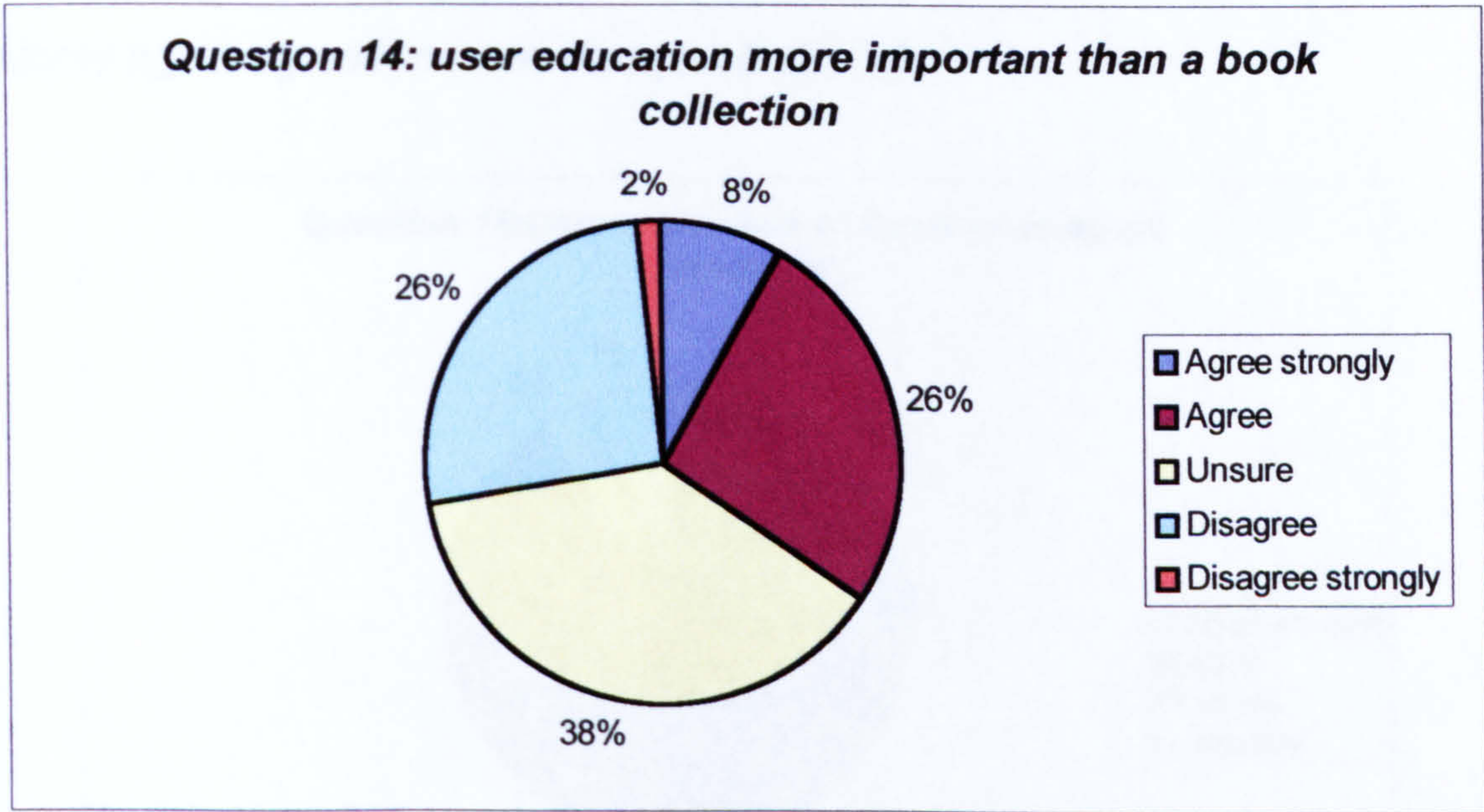


Chart 2

When asked if user education is about bringing the user to an agreed standard of proficiency the majority agreed and no one disagreed strongly:

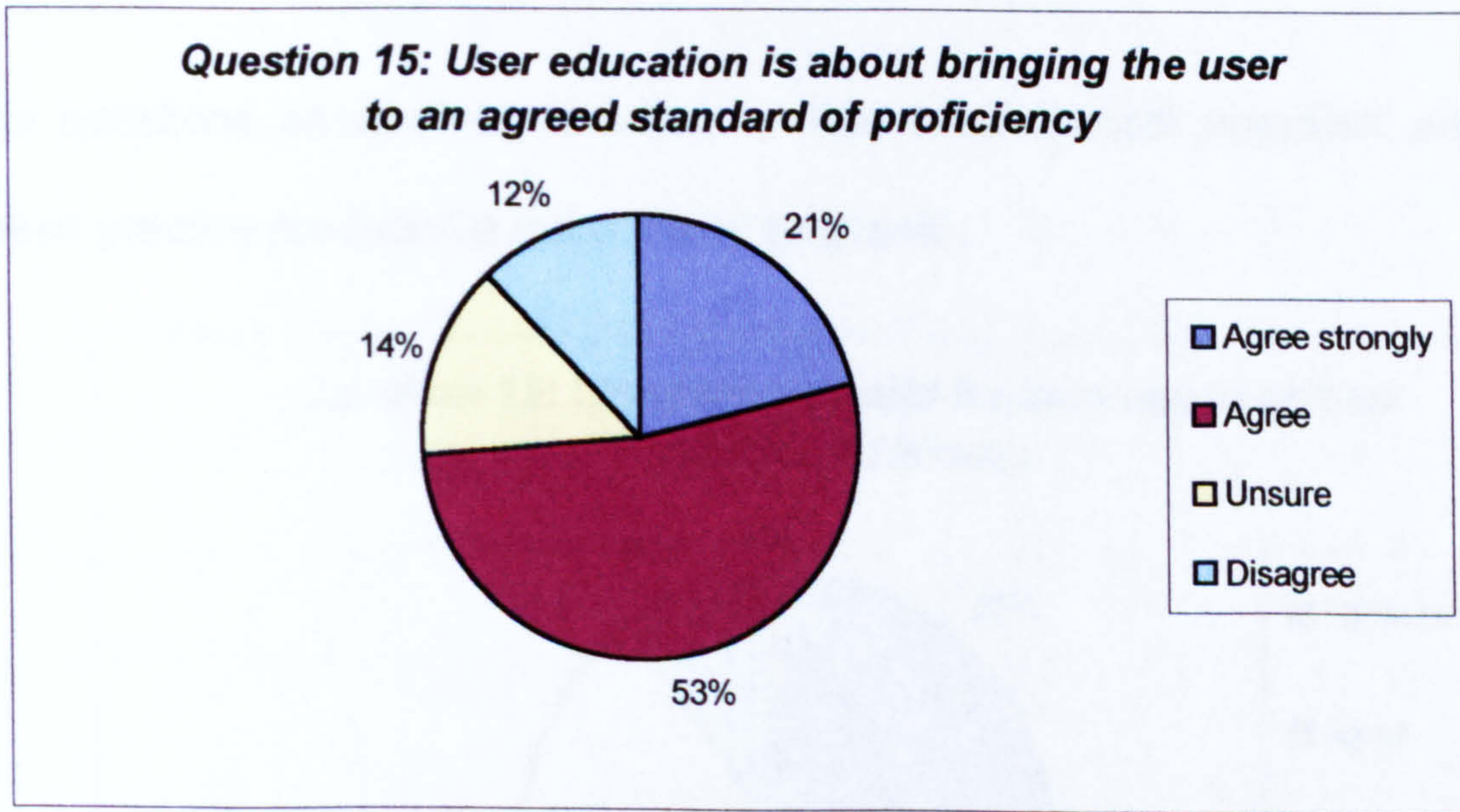


Chart 3

When asked about whether user education is about passing on knowledge the majority again agreed, no one disagreed strongly:

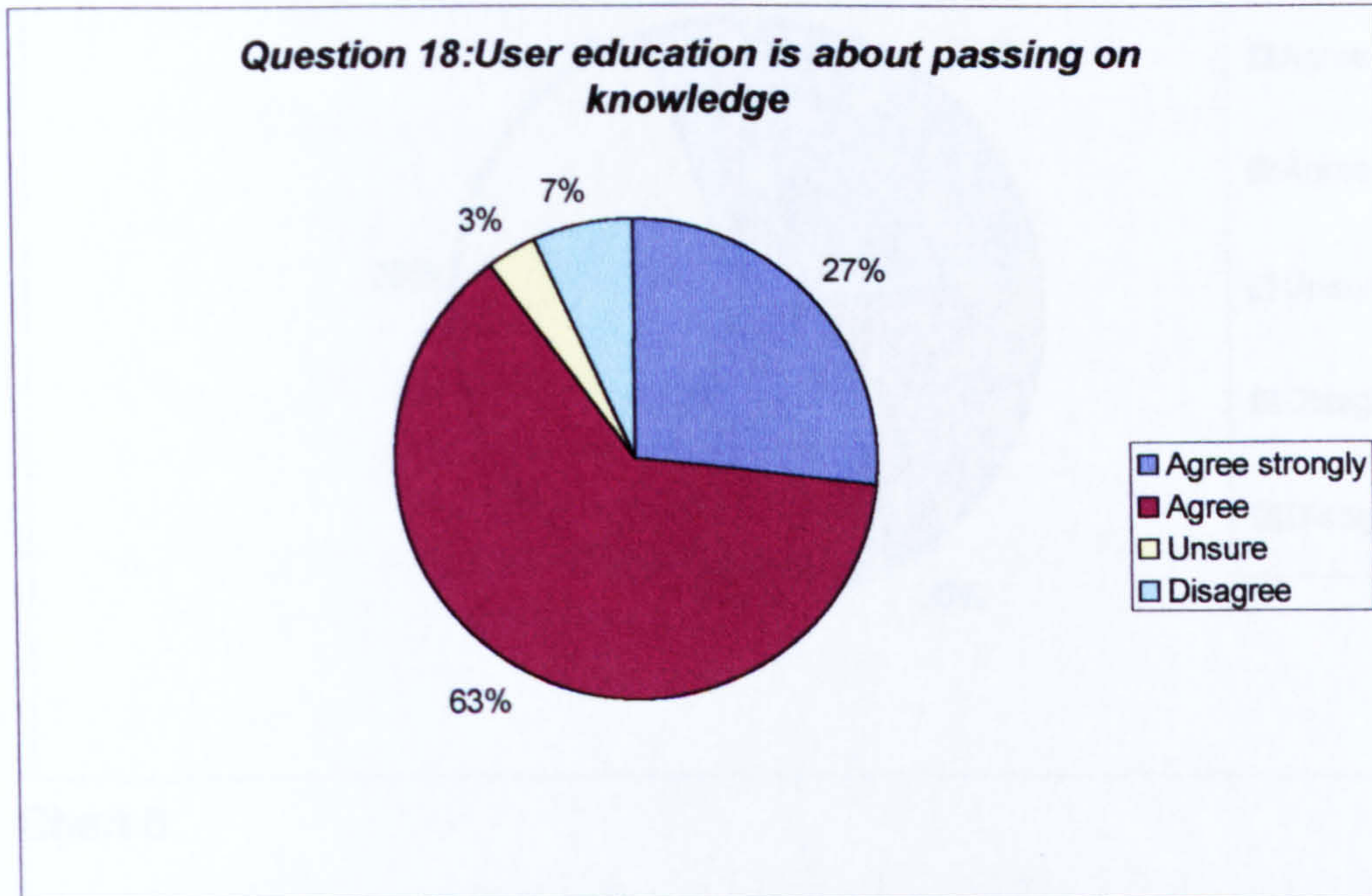


Chart 4

The questions on whether librarians should teach critical appraisal and evidence based practice produced a more mixed response:

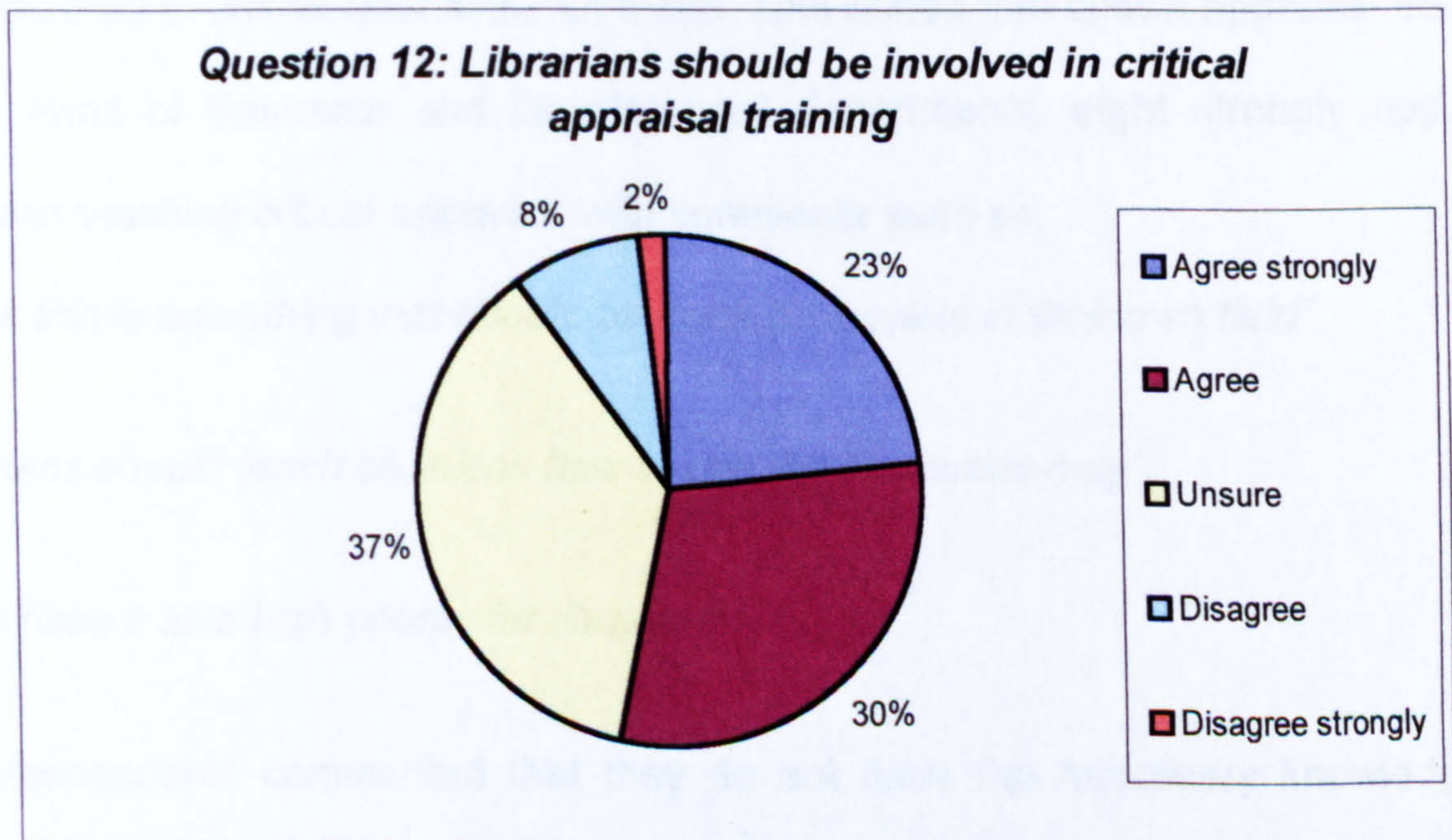


Chart 5

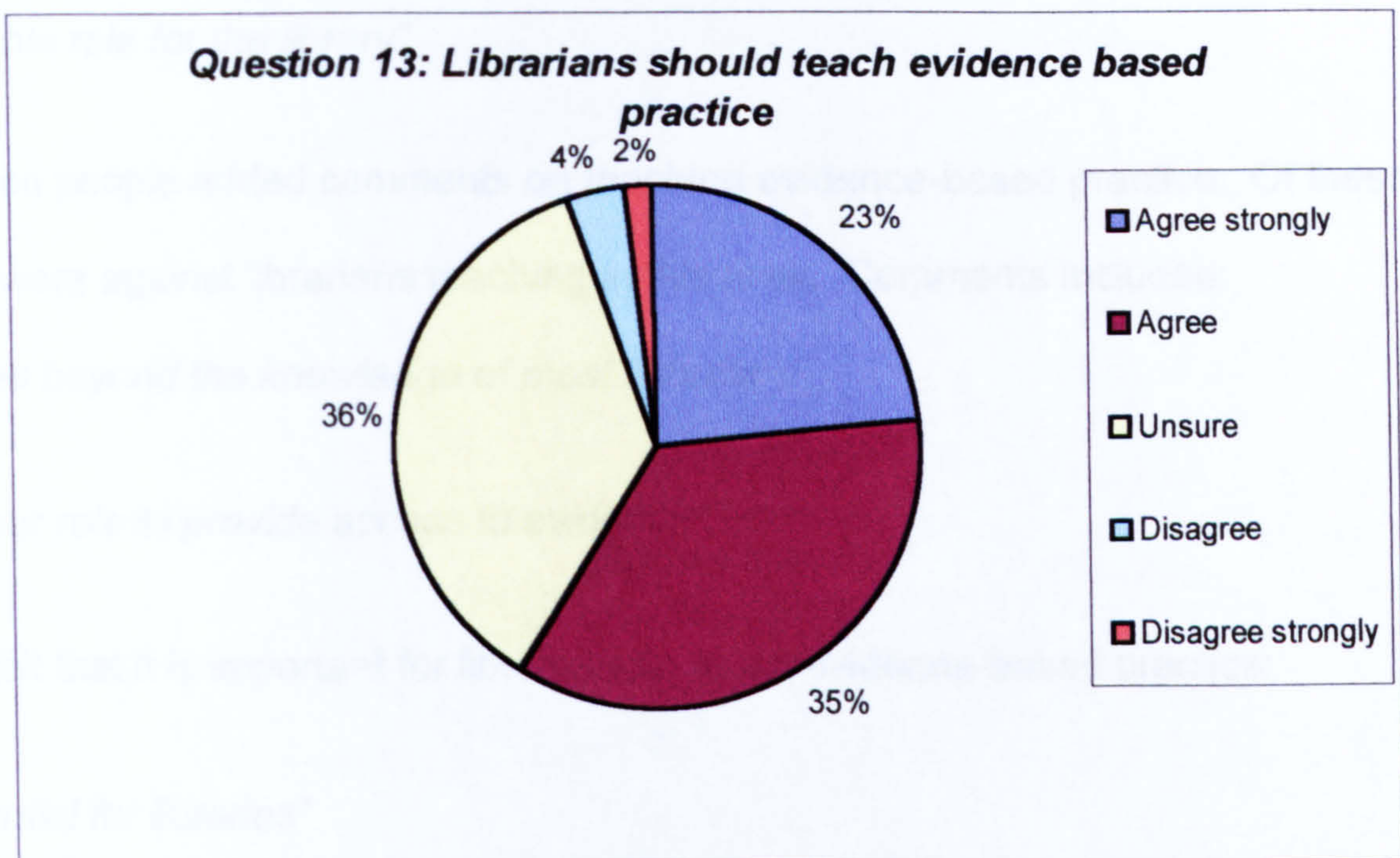


Chart 6

The additional comments threw up some interesting attitudes. Three librarians commented that Internet training could be done by I.T. staff with one librarian saying that “may be a touchy area with I.T. departments” if librarians took on Internet training. The biggest response to the request for additional comments came under the topic area of critical appraisal. Of these, nine stated that critical appraisal training is the remit of Research and Development departments, eight strongly opposed librarians teaching critical appraisal with comments such as:

“I think this is something that should be done by experts in their own field”

“librarians should teach clinicians how to use the resources only”

“I don’t see it as a high priority for librarians”

Five respondents commented that they do not have the necessary knowledge or skills to teach critical appraisal, while one said time is a barrier.

There were two comments in favour of librarians teaching critical appraisal, for instance:

“now essential”

“valuable role for the library”

Thirteen people added comments on teaching evidence-based practice. Of these, three were against librarians teaching in this area. Comments included:

“it goes beyond the knowledge of most librarians”

“it is our role to provide access to evidence”.

Five felt that it is important for librarians to teach evidence-based practice:

“essential for libraries”

“teaching an awareness of why this is important should underpin all teaching”

One person commented that time was a constraint and one felt s/he needed more knowledge.

Three commented that it was the remit of the Research and Development Department and one commented that there was some resistance from clinicians towards librarians teaching in this area.

4.4 Attitudes of librarians

Questions 11 and 17 looked at whether librarians felt confident in teaching and felt they had the necessary skills. Neither question prompted anyone to disagree strongly:

Question 11: I feel confident in teaching health care professionals

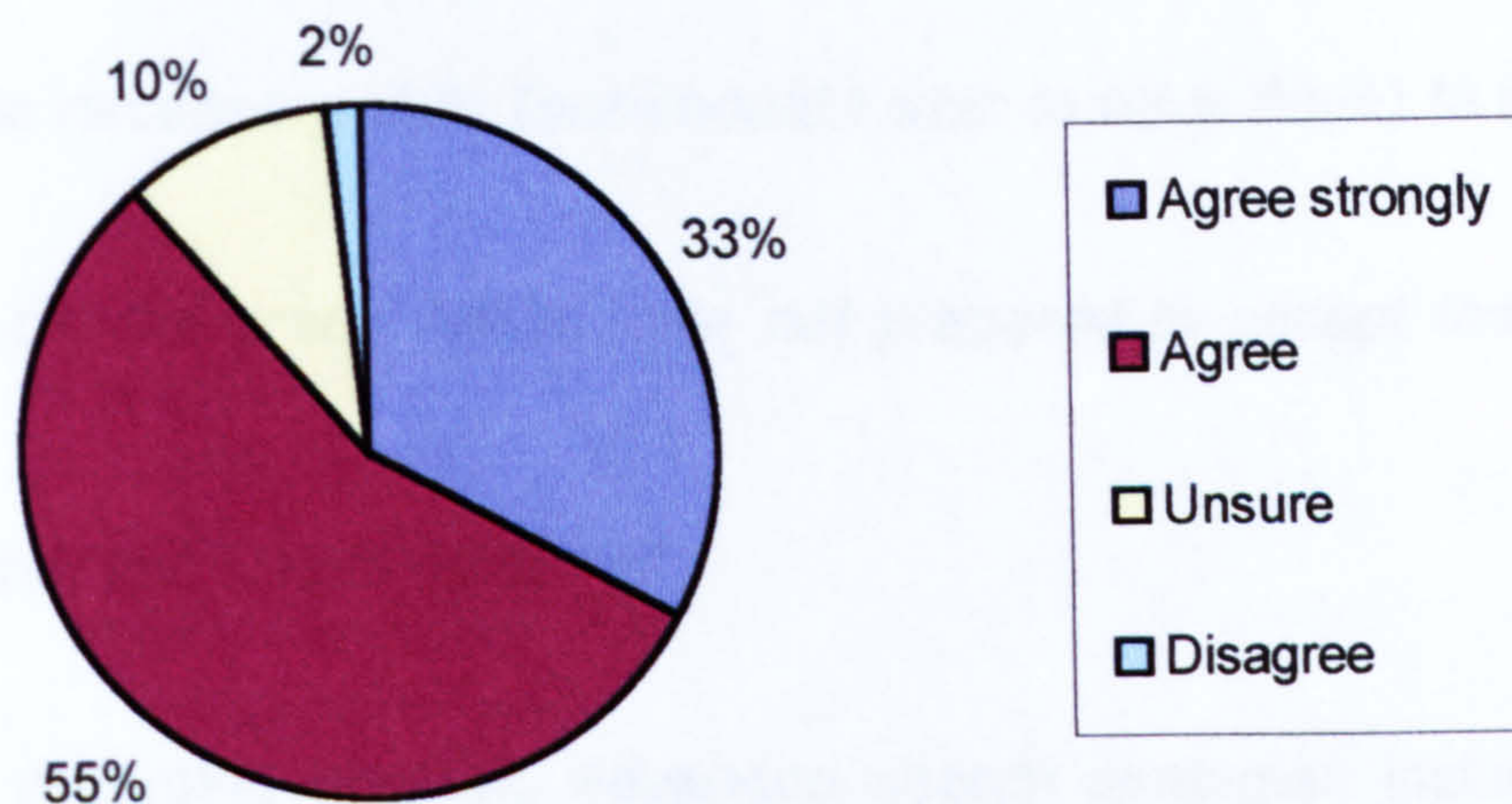


Chart 7

Question 17: I have the necessary skills in order to teach

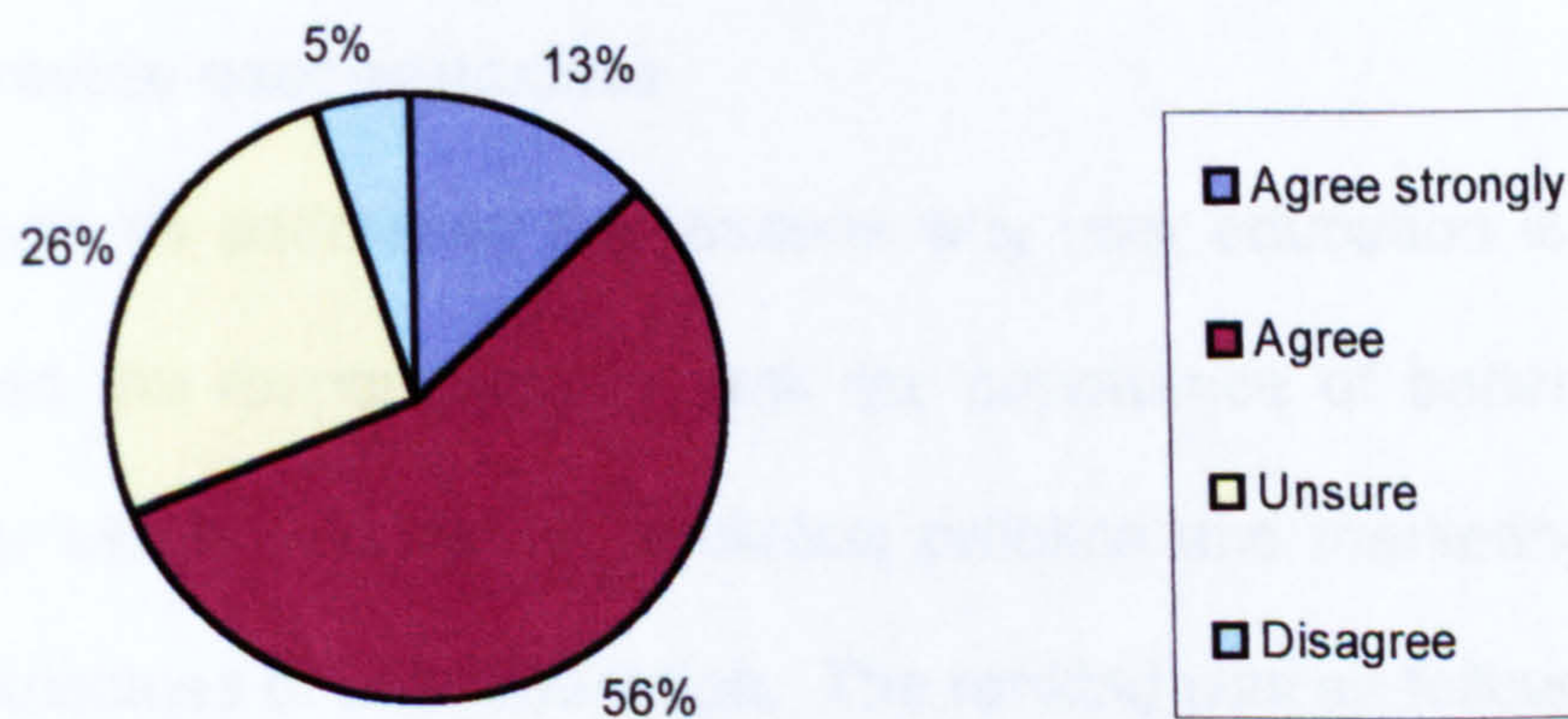


Chart 8

Other final comments included one about lack of confidence and one about lack of time. One final comment was that teaching is an “essential role” for librarians. Three final comments questioned both whether librarians should teach and how much of an impact teaching could have. Comments included:

"I think our role as librarians is to show people how to retrieve information, what they do with the information is up to them"

"user education is about imparting skills we cannot force the user to apply the skills we cannot enforce application of knowledge"

"I do not feel I have the necessary skills (nor should I wish to have them) to interpret further"

"on a salary scale of clerical grade A&C4 I am not prepared to accept the role of teacher"

"I don't want to be further involved in teaching"

Additional comments regarding teaching advanced search strategies included two remarks about librarians carrying out searches on behalf of users:

"it could be argued that such searches might be better undertaken by library staff"

"sometimes it's easier to do searches for readers when more advanced skills are needed"

4.5 Motivation to provide user education

Some of the questions addressed the reasons why user education is carried out. Question 19 asked the respondents to rank the importance of better use of library resources, better use of information in clinical practice and marketing of the library in terms of the outcomes of user education. The ranking was as follows:

1st: better use of information in clinical practice

2nd: better use of library resources

3rd: marketing of the library

When asked if user education raises the profile of the librarian the results were:

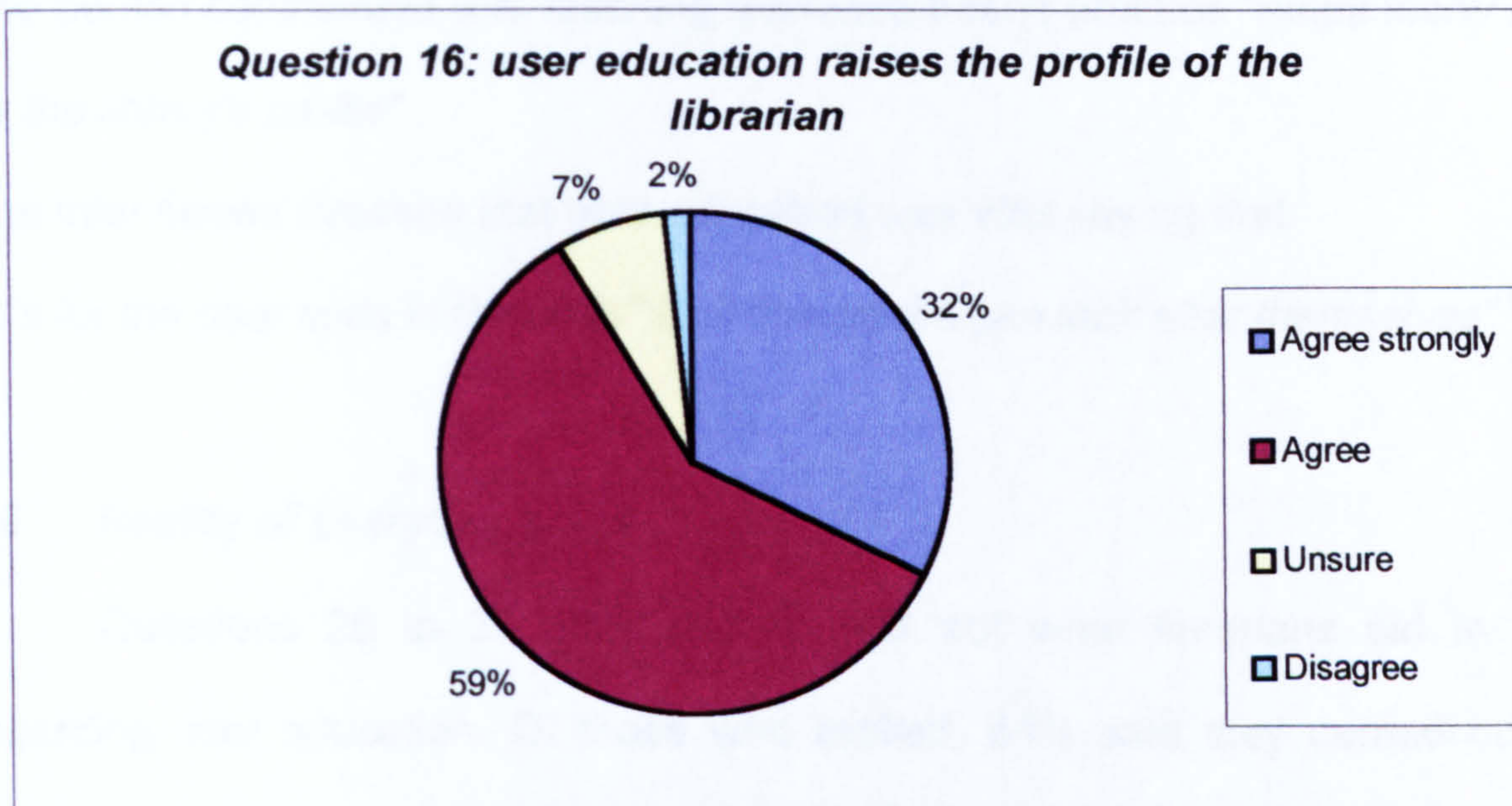


Chart 9

Question nine looked at whether librarians feel user education has an impact on patient care, no one disagreed strongly:

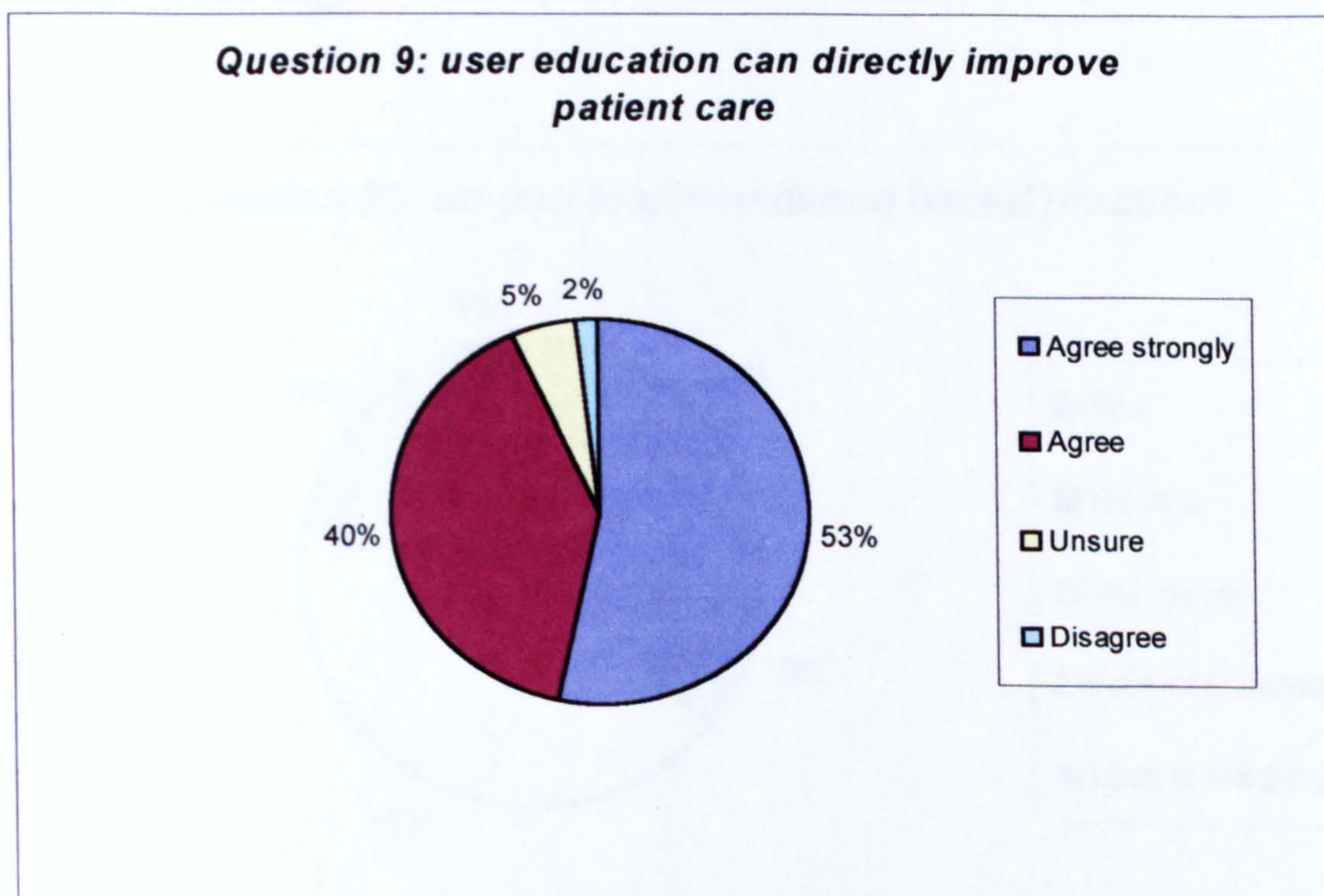


Chart 10

Of the additional comments, four mentioned that library induction raises the profile of the library with comments such as:

Vital for PR

Good for PR and marketing of the service

One person commented that teaching evidence based practice *“reaps many rewards for the library’s profile”*

One interviewee stressed that user education was vital saying that:

“it’s for the poor sods in the beds” and *“the books can look after themselves”*

4.6 Reality of everyday practice

Questions 20 to 25 attempted to find out what librarians did in practice regarding user education. Of those who replied, 84% said they carried out library inductions. When asked if they teach basic database searching 90% said yes and 81% said they teach Internet searching. When asked if they teach advanced database searching, critical appraisal and evidence based practice the results are a little more complicated:

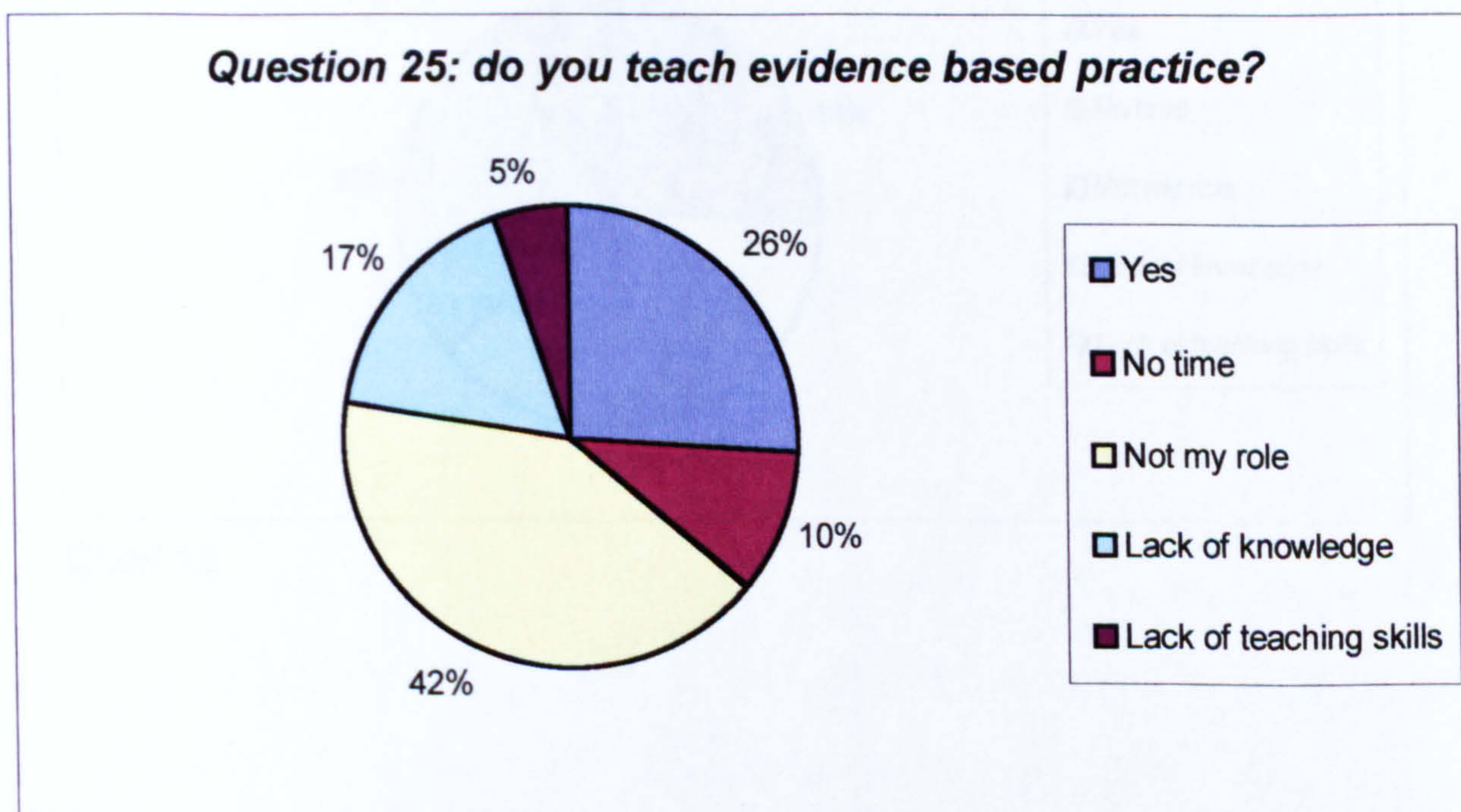


Chart 11

Question 23: do you teach advanced database searching?

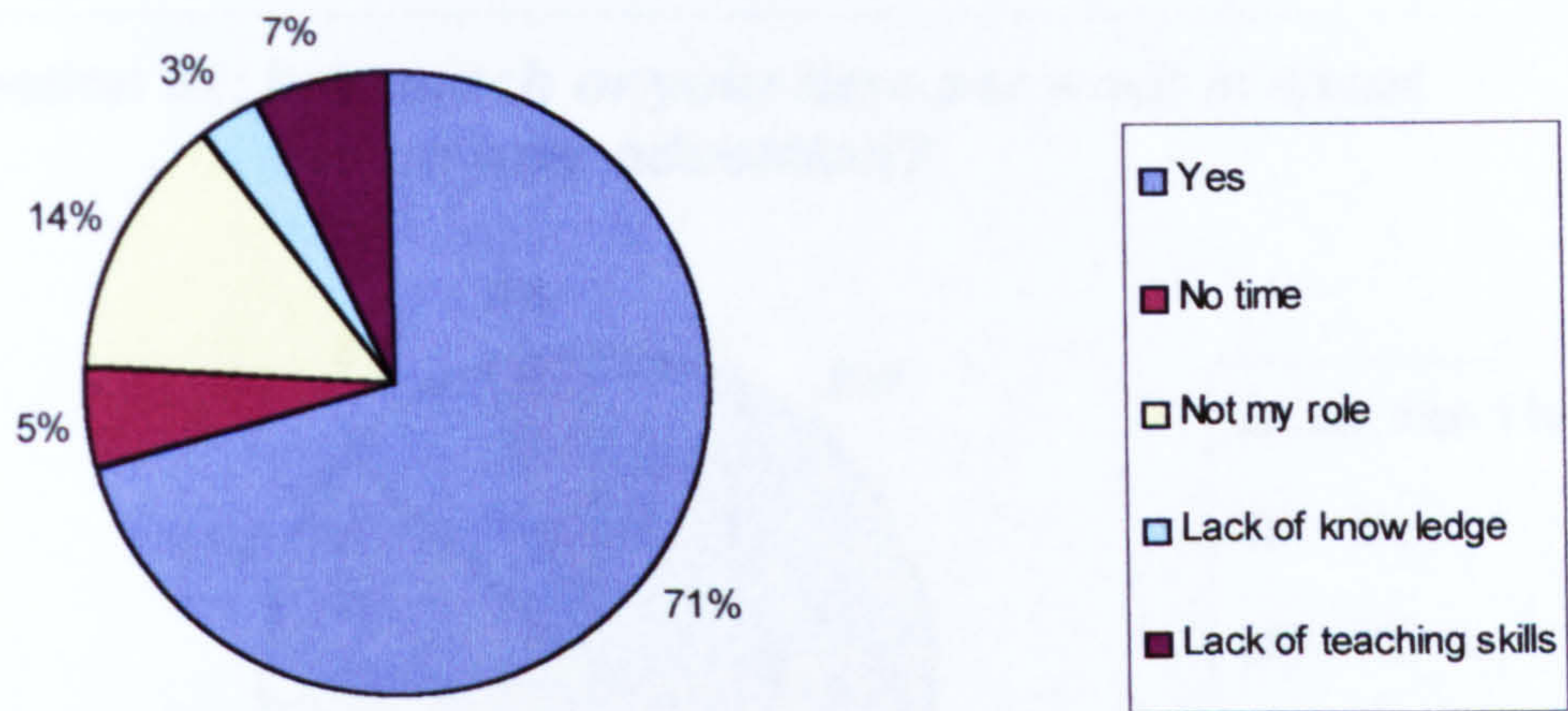


Chart 12

Question 24: do you teach critical appraisal?

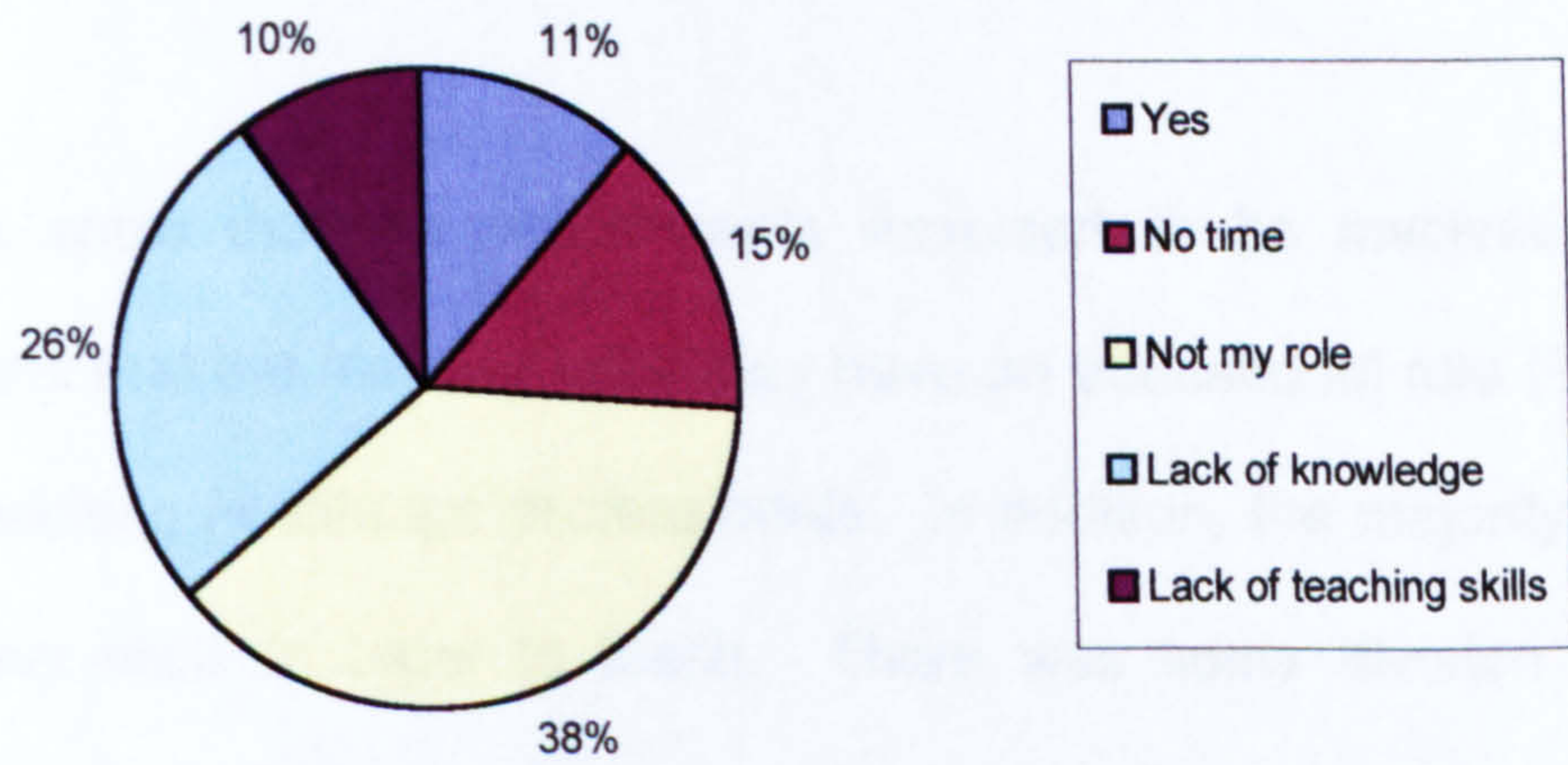


Chart 13

When asked how much time per week is spent on user education the results were as follows:

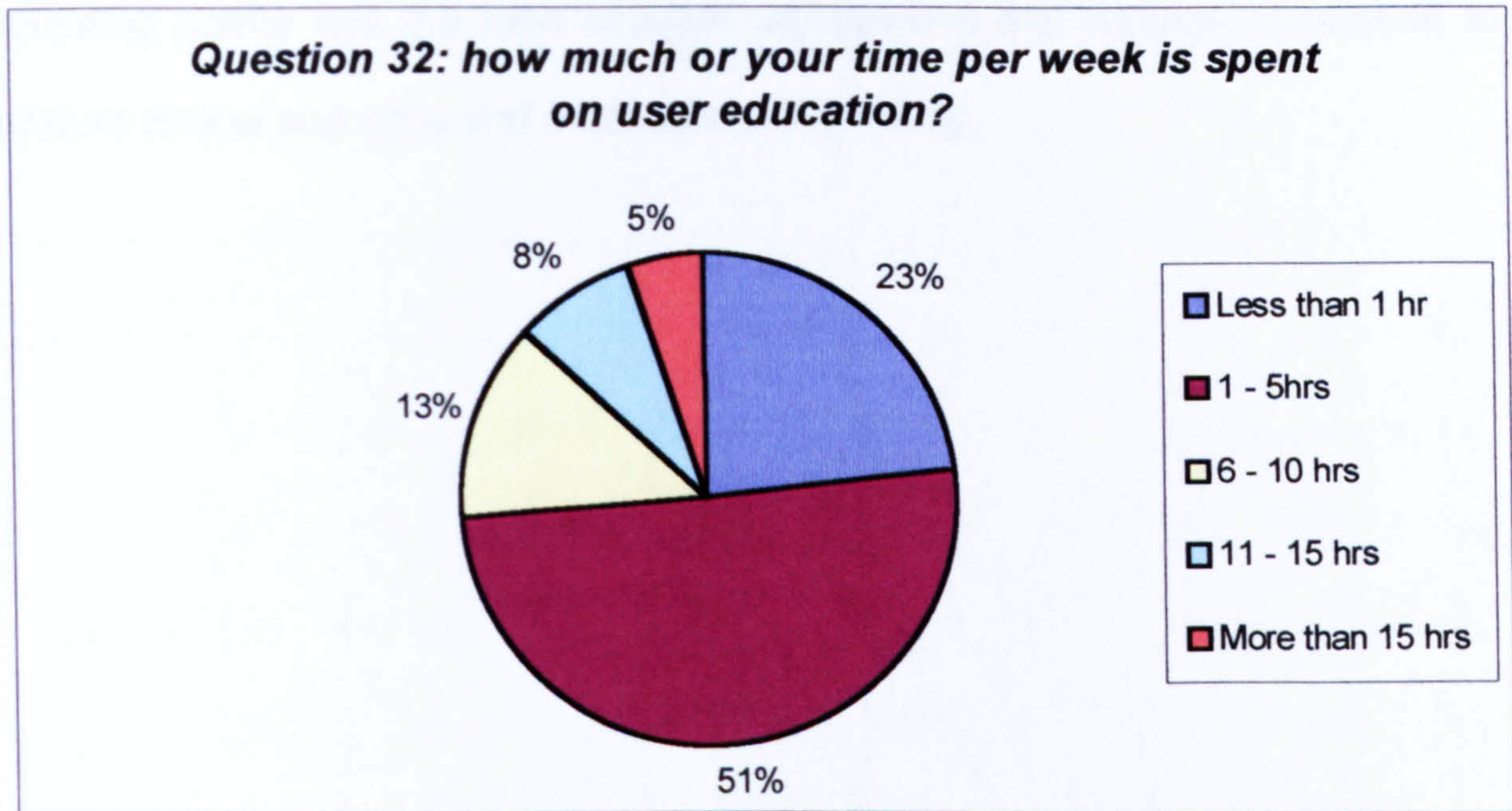


Chart 14

4.7 Summary

The results show that the respondents expected to be involved in user education (74%) and that the majority feels they have an educational role (93%) and are confident in teaching healthcare professionals. In addition, the majority felt they have the necessary skills in order to teach. There was some division over the importance of user education in relation to a book collection (the majority either disagreed or was unsure). When asked if user education is about passing on knowledge the majority agreed while a smaller, but substantial, majority agreed that user education is about bringing the user to an agreed standard of proficiency. While a small majority of respondents agreed that librarians should be involved in critical appraisal training and teaching evidence based practice many remain unsure. A large majority of respondents felt that user education raises the profile of librarians and 93% felt that user education can directly improve patient care. When asked if they actually teach critical appraisal and evidence based practice the majority

answered no. When asked how much actual time was spent in a week on user education a large majority said five or less hours. These findings pose some interesting points and the next chapter will discuss the findings in relation to the literature review and aims and objectives of the study.

Chapter 5: Discussion

5.1 Introduction

The aim of this study was to find out how librarians view their role in providing training and education to healthcare professionals working in the NHS. Librarians are increasingly being encouraged to take on an educational role. This role is documented and is frequently referred to in the professional and official literature. The introduction of clinical governance and the expansion of evidence based practice has meant that the scope of user education is being broadened. Critical appraisal training and evidence based practice are seen as part of this expansion and much of the official literature promotes librarians as being able to provide training in these areas.

The study looked at the attitudes of librarians and their propensity to provide user education in light of evidence based practice and clinical governance. The study also looked at whether the attitudes of librarians are reflected in the reality of their day to day work. The literature review pointed to little recent research in this field. However, there were numerous descriptive articles on how best to carry out user education and in addition many personal reflections on librarians having an educational role. Some of literature suggested that librarians were ill prepared for an educational role and did not feel confident in their ability to teach healthcare professionals. The official and professional literature espouses an educational role for healthcare librarians. However, the literature review found two articles that showed that the literature does not always correspond with the reality of practice (Collington 1998; McKnight et al 2000). The literature review also revealed that little research had been done on the impact or effectiveness of user education. Most evaluation studies focus on the mechanics of training rather than the on-going impact of training. The present focus of the NHS is very much on improved outcomes in

terms of patient care. No studies supported the view that user education can have a direct impact on patient care.

The data for this study was collected using semi-structured interviews followed by a postal questionnaire. The results were presented in a thematic order as can be seen in the previous chapter. This chapter will critically discuss the results with reference to the literature review and original objectives of the study.

5.2 Do librarians think they have an educational role?

While the literature pointed to librarians being unprepared for an educational role (Patterson and Howell 1990; Burke and Millar 1997), the respondents clearly felt that they expected to be involved in some form of user education. They also strongly believe that they have an educational role. What is not clear from this answer is whether that role is in providing education via training and educational interventions, or supporting education by providing resources. So while the respondents think they have an educational role this does not necessarily mean they view themselves as educators. An educational role could have been interpreted to mean providing books, journals and even study space. However, when asked if user education is more important than a book collection the respondents were split with the biggest slice unsure whether they agreed with the statement or not. The role of user education, while acknowledged as being substantial does not seem to have overtaken the more traditional roles of providing access to books. However, there does appear to be a move in this direction.

User education is clearly viewed as involving passing on knowledge and meeting agreed standards of proficiency. This could mean that the respondents are happy to take a conceptual and user focused approach to user education. The need for a conceptual approach was recognised as being important within the literature

and the respondents appear to be moving in this direction. However, the need to extend user education to meet the broader remit of evidence based practice appears to be less clear cut.

5.3 Critical appraisal and evidence based practice

Much of the official literature points to librarians being involved in the more advanced information skills of critical appraisal and evidence based practice. Indeed, the Library Association (2001) guidance on pay for healthcare librarians states that they are able to provide such training. However, the respondents in this study do not show a strong inclination to be involved in critical appraisal training or to use the principles of evidence based practice to guide any user education they offer. While a small majority (53%) agreed strongly or agreed that librarians should be involved in critical appraisal training, 37% of the respondents remained unsure. A small minority disagreed or strongly disagreed. The figures for teaching evidence based practice were similar. The questions around critical appraisal and evidence based practice produced the most responses in the form of additional comments on the questionnaire and replies in interviews. Comments broadly fell into three categories:

- A few commented that it was essential for librarians to be involved in critical appraisal training. Also, that the principles of evidence based practice should form the basis of all training.
- Many commented that it is the role of librarians to provide access to resources only, and that librarians could not, and in some cases should not, be responsible for how these resources are used.
- Another category of comments was that teaching critical appraisal and evidence based practice was, or should be, the remit of someone else.

There appears to be a wide range of attitudes towards teaching in this area and a significant number of the respondents are unsure as to the extent librarians should be involved in the more advanced aspects of user education. Indeed, some felt strongly that librarians should not take on an educational role in this area and it is interesting that a number of respondents commented that it is the role of librarians to provide access to resources only. The reluctance of some to move away from the gatekeeper role, either of printed material or of electronic resources, is in marked contrast to the image of the librarian as portrayed in the literature and official rhetoric. Some librarians appear happy for other professional groups, such as those involved in research and development, to take on the role of educator in relation to critical appraisal skills. However, some librarians are actively pursuing the role of educator and view critical appraisal and evidence based practice as a natural extension to their traditional roles. In fact, some of the librarians view supporting critical appraisal and evidence based practice through providing training as an essential role.

5.4 Do librarians think they have the right skills and knowledge?

The literature search found many descriptive articles on how best to carry out user education and articles describing personal experiences of delivering training. What little critical and research literature there was pointed to librarians being unprepared for performing a teaching role, mainly due to a lack of training during library school. One of the questions in the questionnaire was designed to generate data on the number of librarians that held actual educational and teaching qualifications, but unfortunately this was misinterpreted. A significant number of respondents took the question to mean what academic qualifications did they hold. This is acknowledged as being a flaw in the design of the questionnaire, but also clearly illustrates the confusion that the librarians themselves have between

academic qualifications and teaching qualifications. The study did find that the respondents were mostly confident in their ability to teach healthcare professionals. However, this only appears to apply to the standard forms of user education such as library induction and basic database searching. The question of skills and knowledge in terms of teaching the more advanced features of evidence based practice and critical appraisal is a little less clear cut. When asked if they teach evidence based practice a quarter replied they did not have the necessary knowledge and 5% said they did not have the necessary teaching skills. When asked if they teach critical appraisal, a quarter again responded in the negative because of lack of knowledge and 10% said no, because of a lack of teaching skills.

5.5 What motivates librarians to provide user education?

The literature review revealed that user education could be seen as a way to promote the library and librarian. This study found that 91% of the librarians questioned think that user education does raise the profile of the librarian. This appeared to be particularly the case in library induction although a few librarians commented that teaching critical appraisal and evidence based practice was good for the profile of the library. However, marketing of library services came third when the librarians were asked to rank it alongside better use of information in clinical practice and better use of library resources. Better use of information in clinical practice was ranked first, and linked to this 93% agreed strongly or agreed that user education can directly improve patient care. Nothing in the literature supports this particular view. There is no evidence on the effectiveness of information skills training in relation to improved patient care. Indeed, there is little evidence to prove a direct connection between better use of information and improved patient care. However, as

recognised by evidence based healthcare, lack of evidence does not necessarily mean that an intervention is ineffective.

5.6 Are attitudes reflected in daily practice?

Of the librarians questioned 86% agreed strongly or agreed that user education is a substantial part of their role. This corresponded to the findings of a training needs analysis of NHS librarians that found 77.3% of respondents cited user education as a regular task (Maynard 2002). However, the results from the questions regarding actual teaching taking place show a more complicated picture. While 84% of respondents said they carry out library induction sessions, 90% teach basic database searching and 81% teach Internet searching, the figure begins to drop when asked what further skills they teach. Only 71% of respondents teach advanced database searching, 26% teach evidence based practice, and just 11% teach critical appraisal:

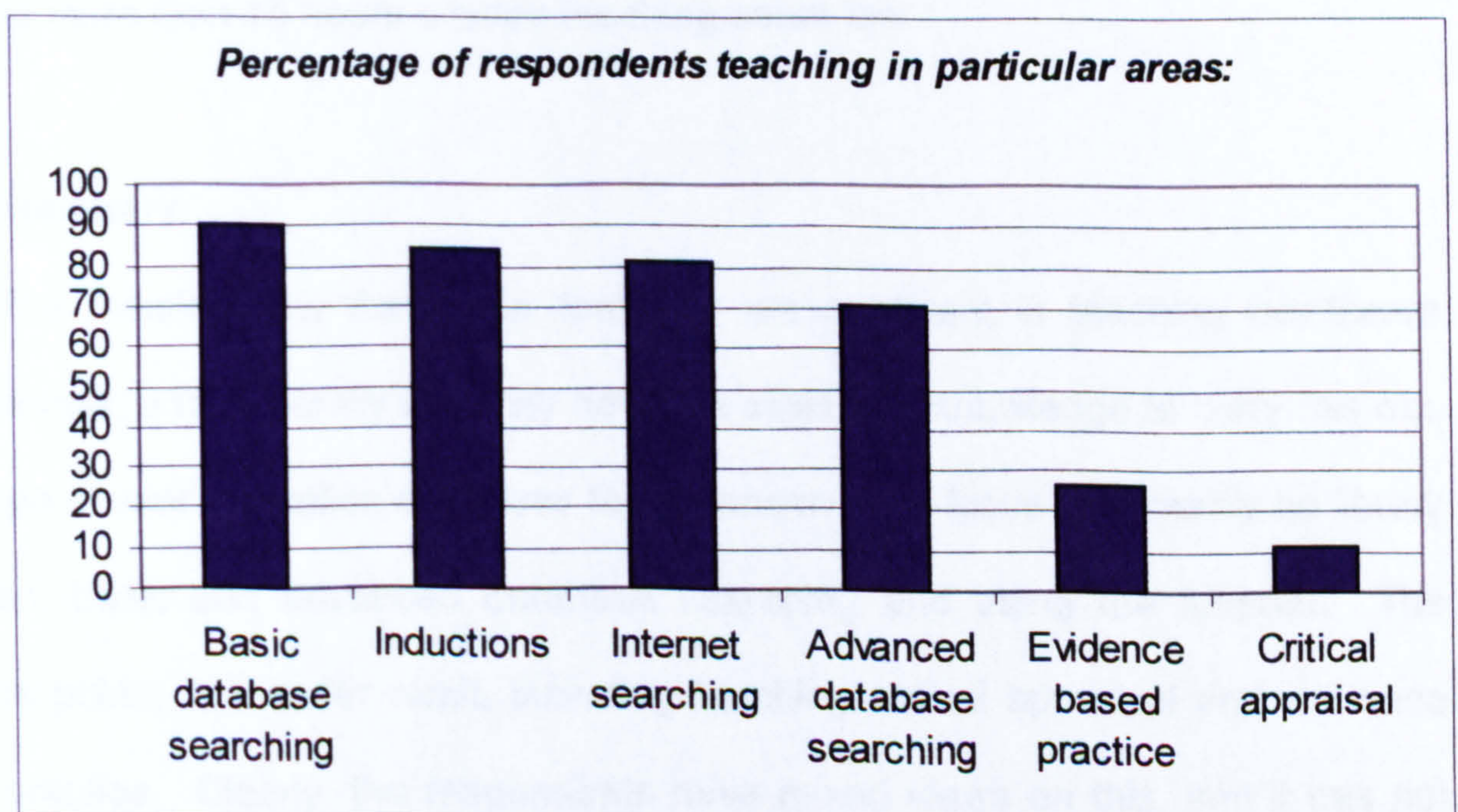


Chart 15

This is in marked contrast to the 58% that said librarians should be involved in teaching evidence based practice and the 53% of respondents who said that librarians should be involved in critical appraisal training. The literature review

revealed that the rhetoric of a group does not always fit the practice of that group in terms of day to day work. The results of this study appear to support this. While the “normative literature” of the profession encourages librarians to extend their teaching roles and take on critical appraisal training, in reality this is clearly not happening in the majority of libraries. Interestingly, a significant number of respondents gave the reason “it’s not my role” for not teaching the critical appraisal and evidence based practice (42% for evidence based practice and 38% for critical appraisal). Perhaps librarians will not fully take on this role until it becomes a standard in job descriptions, and a part of the required day to day activities.

Also of interest is the actual amount of time spent on user education. While 86% think user education is a substantial part of their role, 74% spend less than 5 hours a week teaching. This may be because a percentage of the respondents work part-time, and perhaps this should have been investigated. However, the figures of 21% spending between six and fifteen hours a week on user education and 5% spending more than 15 hours a week teaching seem low.

5.7 Summary

The results show that while librarians are confident in teaching healthcare professionals, and generally feel they have the skills and knowledge to carry this out, the scope of user education continues to be narrow. The focus is primarily on library induction, basic and advanced database searching and using the Internet. The literature points to a wider remit, including teaching critical appraisal and evidence based practice. Clearly, the respondents have mixed views on this, and it has not become mainstream practice to think of it as part of the role of a librarian. In practice, the contrast is even more marked. Very few librarians are actively providing critical appraisal and evidence based practice training. The fact that a substantial number

of librarians responded that they do not offer this type of training because it is “not my role” indicates that the causal reasons why they are not offering this training are not straightforward. This is backed up by the additional comments made stating that librarians should provide access to resources only. The respondents appear reluctant to take on the extended roles being promoted in the literature. As McKnight et al (2000) observes:

“it is one matter to spell out the potential roles of librarians with a spirit of optimism; it is quite another to realise them in librarians’ daily activities”
(p119)

The respondents regard user education as a profile raising exercise but also have a wider view of the potential outcomes of their educational role. A large majority thinks that user education can have a direct impact on patient care and this was considered to be the most important outcome of user education.

The next chapter will conclude the project by reflecting on whether the aims and objectives have been met and will discuss the limitations of the study. The main findings of the study will be summarised and potential areas of further research will be discussed.

Chapter 6: Conclusions

6.1 Introduction

This chapter will holistically review the process of carrying out this research project. It will present the key findings and discuss whether the aims and objectives of the study have been met. Any problems and weaknesses in the research process will be acknowledged and discussed. Where applicable, recommendations for further study will be made.

6.2 Aims and objectives

The study aimed to find out how librarians view their role in providing training and education to healthcare professionals working in the NHS. This topic was chosen as librarians are increasingly being promoted as able and willing to provide training to support the information skills required to practice evidence based healthcare. The literature review showed that little research had been done around the educational role of librarians and that while the professional and official literature espoused this role the reality of practice was unclear. Specific objectives for the study were:

- Do librarians think they have an educational role?
- Do librarians think they have the right skills and knowledge to be able to take on an educational role?
- Are librarians attitudes towards user education reflected in their work?
- Do librarians think they have a role in teaching evidence based practice and critical appraisal?
- What motivates librarians to provide user education?

The methods used to collect data in order to answer these research questions were semi-structured interviews followed by a postal questionnaire. Grounded theory was used to enable the development and refining of the specific objectives of the

study. This was done during the analysis of the data generated by the interviews. Care was taken to match the methods chosen to the types of data needed. The survey population was librarians working in the NHS in the North West of England.

6.3 Main findings

The main findings can be summarised as:

- the respondents clearly felt that they expected to be involved in some form of user education and believe they have an educational role.
- While a small majority, (53%) agreed strongly or agreed that librarians should be involved in critical appraisal training, 37% of the respondents remained unsure. The figures for teaching evidence based practice were similar.
- In reality, 71% of respondents teach advanced database searching, 26% teach evidence based practice, and just 11% teach critical appraisal.
- The study found that 91% of the librarians questioned think that user education raises the profile of the librarian.
- 93% agreed strongly or agreed that user education can directly improve patient care.

The results of the study do meet the aims and objectives of the project. This was ensured by continually referring to the objectives and matching the methods to the data requirements. The most interesting area of the results is around the librarians' attitudes towards critical appraisal training and evidence based practice in comparison to the actual reality of practice. Also of interest is the strong belief that user education can directly improved patient care.

6.4 Limitations

A number of problems were encountered during the research process. The challenge of time management was generally overcome. However, carrying out the semi-structured interviews proved to be very time consuming. The number of interviews carried out, five, may appear low and more should possibly have been carried out. However, the five interviews did produce a lot of rich data and throughout the project decisions need to be made regarding the amount of time available and the needs of the project. For instance, it was decided not to follow up on non-return of the questionnaires, as the return rate was high. It was therefore decided that time would be better utilised in data analysis rather than chasing those librarians who did not return the questionnaire. Ultimately, time constraints did not have a negative impact on the research process as they were always acknowledged and decisions about how best to use the time available were reflected upon and reported.

One of the questions in the questionnaire was badly designed and so was omitted from the results and data analysis. The use of the phrase “educational qualifications” in question five would have been better worded as “what teaching or training qualifications do you have?”. This question would have produced some useful data and it is acknowledged as a flaw in the design of the questionnaire. None of the other questions proved problematic though, although there were some errors and omissions in the completion of the questionnaire by some respondents. However, this is to be expected in any questionnaire survey.

Another problem throughout the study was the broad nature of the terms “user education” and “educational role”. When asked if they agreed or disagreed that they had an educational role 93% answered that they did have such a role. However it remains unclear what is meant by this. Also, there was little to illuminate what having an educational role actually meant to the librarians. It is possible that a librarian

could claim to have an educational role because they provide resources to support education, or even because they give new users an induction to the library service. This could be as basic as a tour of the library and a demonstration of how to use the library catalogue. This lack of definition may be one of the limitations of this study, however the data collected on reality of practice did go some way to address this.

6.5 Recommendations for further research

This study, while answering the aims and objectives of the research question, has highlighted the need for more research in this area. The study has shown that there is a discrepancy between what is being reported in the literature and what is happening in reality. What the study does not show, and did not intend to show, is why that discrepancy exists. There could be any number of reasons and an understanding of these would be needed before any interventions to encourage librarians to take on an extended educational role could be implemented. Time and workload are usually cited as reasons why training is not offered. It may be that the model of employing librarians specifically to provide training is one possible solution and the implications of this would be worthy of further study. Another issue may be that librarians do not have an understanding of the principles of critical appraisal and evidence based practice and so need training themselves in these areas. It would be interesting to know whether the educational background of the librarians, i.e. whether they have an arts or science degree, has an impact. Evidence based practice and critical appraisal require a knowledge and understanding of statistical techniques and it may be that an arts graduate feels ill-equipped to tackle this more scientific area of evidence based practice.

As part of a growing trend to base library services on an evidence based footing further research is definitely needed on the outcomes of any educational

intervention offered by librarians. As shown in the study a large majority of librarians believe that user education can directly impact on patient care. There is no evidence to support this view and research needs to be done in this area.

6.6 Conclusion

While the study has some flaws, the aims and objectives of the research question have been met by this research project. It has highlighted the need for more research in this area and the need to report actual day to day practice in the literature. The findings have shown that while librarians believe that they have an educational role the scope of that role is limited. There is a gap between what is being promoted and reported in the professional and official literature and what is happening in reality. While librarians are active in providing user education in terms of library induction, Internet and database searching only a minority are providing training in critical appraisal and evidence based practice. However, librarians are aware of the possible impact user education could have on patient care and think this is the most important outcome of user education. While there is no evidence in the literature to support this it does at least show that librarians are looking outside their own environment and considering the ultimate benefit of user education as improved patient care. As one respondent put it:

"it's for the poor sods in the beds".

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Appendix 1

Interview guide:

Warm-up questions:

Introduction to the project
Assurance of confidentiality
permission to tape & make notes

Educational roles:

training/user education in job description

educational qualifications, training to train

educational role?

Understand the difference between education & training?

Transfer of knowledge?

Ends at database skills or continues to better use of information to support clinical care?

Importance of user education:

Equal to providing resources? Books, journals etc

Motivations:

purpose of user education?

Being able to use databases or being able to make more effective use of information?

main outcomes of user education?

Probes:

User independence

Patient care

Marketing – profile of library/librarian

Critical appraisal & evidence based practice:

critical appraisal training?
Role for librarians?
Skills & knowledge
Experience of it?

evidence based practice?
Role for librarians?
Skills & knowledge
Experience of it?

Skills & knowledge:

necessary skills to teach?

necessary knowledge to teach?

Different types of user ed: basic database searching, critical appraisal, EBP

Own experience of user education:

Teach induction, internet, database searching, critical appraisal, evidence based practice?

Barriers?

Positives?

Finish off:

Thank you

Interviews will be transcribed & data analysed.

OK to contact if anything needs clarifying?

Appendix 2: Item pools

<i>Skills & knowledge</i>	<i>Educational role</i>	<i>Motivations</i>	<i>Critical appraisal & EBP</i>
<p>Do librarians have an educational qualification?</p> <p>Do they think they have the necessary teaching skills?</p> <p>Do they think they have the necessary knowledge in particular areas?</p> <p>Are librarians confident in teaching healthcare professionals?</p>	<p>Do they think they have an educational role?</p> <p>What user education do librarians actually provide?</p> <p>How much time per week is spent on user education?</p> <p>Do they think user education enhances their image?</p> <p>Is user education more important than a book collection?</p> <p>Is user education thought of as more than training on using databases?</p> <p>Do librarians expect to be involved in user education?</p>	<p>Can user education directly improve patient care?</p> <p>Does user education raise the profile of librarians?</p> <p>Is user education about user independence?</p> <p>Does marketing have a role in user education?</p>	<p>Should librarians be involved in teaching critical appraisal and evidence based practice?</p> <p>Do librarians actually do critical appraisal training?</p> <p>Do librarians teach evidence based practice?</p>

Questionnaire – Attitudes towards having an educational role
Please complete all the following questions:

1. What is your job title?						
2. Is user education part of your job description?						
3. How many years have you worked as a librarian?	Less than 1 year	1 – 5 years	6 – 10 years	11 – 15 years	16 – 20 years	Above 21 years
4. What professional qualifications do you have?						
5. Do you have a formal educational qualification?	Yes		No			
Please indicate, using the scale opposite, whether you agree with the following statements:	Agree Strongly	Agree	Unsure	Disagree	Disagree strongly	
6. User education is a substantial part of my role:	1	2	3	4	5	
7. I expected to be involved in user education when I qualified:	1	2	3	4	5	
8. I consider myself to have an educational role:	1	2	3	4	5	
9. User education can directly improve patient care:	1	2	3	4	5	
10. User education is about more than training on cd-roms:	1	2	3	4	5	
11. I feel confident in teaching health care professionals:	1	2	3	4	5	
12. Librarians should be involved in critical appraisal training:	1	2	3	4	5	
13. Librarians should teach evidence based practice:	1	2	3	4	5	
14. User education is more important than a book collection:	1	2	3	4	5	
15. User education is about bringing the user to an agreed standard of proficiency	1	2	3	4	5	
16. User education raises the professional profile of the librarian:	1	2	3	4	5	
17. I have the necessary skills in order to teach:	1	2	3	4	5	
18. User education is about passing on knowledge	1	2	3	4	5	

19. What, for you, is the most important outcome of user education: (please rank from 1 – 3 with 1 being the most important)

better use of library resources
better use of information in clinical practice
marketing of the Library & Library services

Please tick as applicable:	Yes – I teach this 1	No – I don't teach this because:	No time 2	Not my role 3	Lack of knowledge 4	Lack of teaching skills 5
20. Library Induction						
21. Basic Database searching – how to log on, key word searches, Boolean						
22. Internet searching						
23. Advanced database searching – Boolean, MeSH, filters						
24. Critical appraisal						
25. Evidence based practice						

Please add any other comments about librarians teaching the following:

26. Library Induction	
27. Basic Database searching	
28. Internet searching	
29. Search strategies – Boolean, MeSH	
30. Critical appraisal	
31. Evidence based practice	

32. How much of your time per week is taken up with user education:	Less than 1 hour 1 - 5 hours 6 - 10 hours 11 - 15 hours More than 15 hours
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If you have any additional comments or observations on user education please include below

**ONCE COMPLETED PLEASE RETURN THE QUESTIONNAIRE IN THE STAMPED
ADDRESSED ENVELOPE PROVIDED**

Appendix 4

Education Centre Library
Pinewood House
Stepping Hill Hospital
Stockport NHS Trust
Stockport
SK12 0JH
Tel: 0161 419 5809

Gwenda.mynott@stockport-tr.nwest.nhs.uk

<<address>>

Dear <<first name, last name>>,

Re: Questionnaire on the attitudes of librarians to having an educational role

As part of my Msc in Health Information Management I am researching the librarians' attitudes to having an educational role. Please could you spend a short amount of time completing the enclosed questionnaire. Once completed return the questionnaire in the stamped addressed envelope enclosed. All answers will be treated in confidence and if you would like to know more about the research project please feel free to contact me.

I really appreciate the help,

Regards,

Gwenda Mynott

Library Manager

Appendix 5

Please ask for Sue Raistrick

Stockport Local Research Ethics Committee
Room 3, Oak House
Stepping Hill Hospital
Poplar Grove
Stockport
SK2 7JE

 0161 419 5014

email: sue.raistrick@stockport-tr.nwest.nhs.uk

Our ref: SPR/02/04/2157

The above reference must be quoted on all correspondence

Ms G Mynott
Library Manager
Stepping Hill Hospital

10th April 2002

Dear Ms Mynott

Re: Min. No. 5157 – Attitudes towards having an education role

Thank you for sending a copy of your questionnaire regarding the above. This was reviewed at a meeting of the Ethical Committee on 8th April 2002. It was agreed that this questionnaire did not require approval from the committee.

Yours sincerely

Mrs S Kitching
Vice Chair