

WHAT ARE THE FACTORS THAT INFLUENCE THE PUBLIC'S  
USE OF OPACS?

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## **Abstract**

The dissertation aims to establish what factors influence the public's use of OPACs. In doing so, it hopes to inform the better deployment of OPACs in public libraries. A literature review justifies the need for such a study by highlighting certain deficiencies in the focus and scope of previous research concerning OPACs. It establishes that research concerning OPACs has tended to focus on users' actions at the OPAC terminal as opposed to within the wider library environment. Additionally, the majority of OPAC literature has focussed on academic library users rather than users in a public library setting. Consequently, the study attempts to address these issues by focusing on the public library users of Sheffield Central Library. It considers their use of the OPAC within the wider library environment as opposed to their actions at the OPAC terminal.

The study has drawn several previously identified factors from T.D Wilson's (1996) model of information seeking behaviour and has tested these using primarily quantitative methods of investigation. The study concludes that several factors can be regarded as influencing the public's use of OPACs: certain personal characteristics, in particular age and occupation; the economic variable of time; the channel of communication and the credibility of the source; information need and type of information required and finally, information seeking behaviour as an ongoing search activity. Finally, the dissertation provides several recommendations, suggesting how public libraries might deploy their OPACs more effectively.

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# **1 Chapter 1 - Introduction**

## **1.1 The Research Problem**

The concept of this study arose from a general observation: In public libraries, library staff are frequently asked about the location and status of library items. Library users also tend to rely on staff members to place reservation on desired but unavailable items, renew any outstanding items and inform them of any fines. Yet all of these tasks could actually be performed using the library's Online Public Access Catalogue (OPAC).

In theory there should be a huge demand for the services OPACs offer. When OPACs were first developed in the 1970s, they were welcomed by library users (Dowlin,1980). More recent advances have broadened the capabilities of OPACs, increasing their potential to benefit the library user, offering an efficient and self guided service which does not require heavy reliance upon library staff. Other self service technologies have also proved popular in recent years. Self service issue and return machines have promised ease of use, availability, efficiency and confidentiality (SELF Consortium, 1996), thereby sharing several important features common in OPACs. Additionally, in their public library standards, the Department for Culture Media and Sport encourages public libraries to provide OPACs as part of an expected minimum service (DCMS, 1999).

Yet OPACs are underused. By identifying the factors that influence the public's use of OPACs, the research presented in this dissertation hopes to inform a better understanding concerning why people chose to use or refrain from using them.

## 1.2 Aims and Objectives

By drawing from previous literature on OPACs the dissertation has recognised several gaps. It is these that have informed and justified the dissertations aims and objectives.

- In particular little research has been conducted on OPACs within the public library setting. This confirms the need to focus on a public library.
- Previous research has tended to focus on users actions at the OPAC instead of concentrating on how OPACs are being used within the wider library context.

Therefore, the overall objectives of the research are:

- To inform the better deployment of OPACs in public libraries.
- To conduct an investigation of OPACs within the wider context of library use, as opposed to many recent studies that aim to investigate users' actions at the OPAC terminal.
- To collect statistics on the frequency of OPAC use within a public library.

The research has a single central aim:

- To identify and examine the factors that may influence public library users' use or non use of the OPAC, looking specifically for any relationships between the identified factors and OPAC use or non use.

### **1.3 Scope**

Due to the small scale of this research project, the scope of the research has been limited to adult users of Sheffield's Central Library.

Sheffield's Central Library:

- The library has a central location, close to Sheffield's high street.
- It offers numerous services from within eight separate library collections. These include: Arts, Social Science and Sports Library, Business, Science and Technology Library, Central Children's Library, Central Lending Library, Local Studies Library, Music and Video Library and Sheffield Information Service.
- Each service point within the library offers access to at least one OPAC terminal.

The range of services, size and central location of Sheffield's central library ensure that it has a large and diverse population. This offers the opportunity to select a representative sample, allowing the generalisation of the research's findings to different locations.

## 1.4 Hypotheses

The research aims overall to identify those factors that influence the public's use of OPACs. The possible factors will be drawn from research into information behaviour, specifically T. D. Wilson's Model of Information Seeking Behaviour (Wilson, 1996). This identifies the following as factors that influence information seeking:

- Information Need/Stress and Coping Theory
- Intervening Variables
  - Personal Characteristics
    - Physiological, cognitive and emotional variables
    - Educational Level
    - Demographics
  - Social/Interpersonal Variables
    - Environmental Variables
  - Economic Variables
    - Cost
    - Time
  - Source Characteristics
    - Access
    - Credibility
    - Channel
- Risk and Reward and Social Learning Theory (Self Efficacy)
- Information Seeking Behaviour – Types of Search
- Information Processing and Use

Each of the factors listed above will be incorporated into a separate hypothesis, asking:  
Is there a relationship between the particular factor and OPAC use?

## **2 Chapter 2 - Literature Review**

### **2.1 Introduction**

OPACs have seen three distinct generations. Each has been widely informed by a vast body of research. However, the focus of the research for each generation has differed. The implications of this suggest that OPAC research is not complete in all areas. The literature review will discuss this in terms of information seeking behaviour, particularly drawing from T.D Wilson's model of information behaviour (Wilson, 1996).

Additionally, certain types of OPAC users have been neglected in the scope of many studies. This adds to the limitations of existing research concerning OPACs. Finally, the literature concludes, suggesting the need for OPAC research to fill these apparent gaps in order to formulate a complete understanding of OPACs and the possibilities that they allow to library users.

### **2.2 OPACs – Three Distinct Generations**

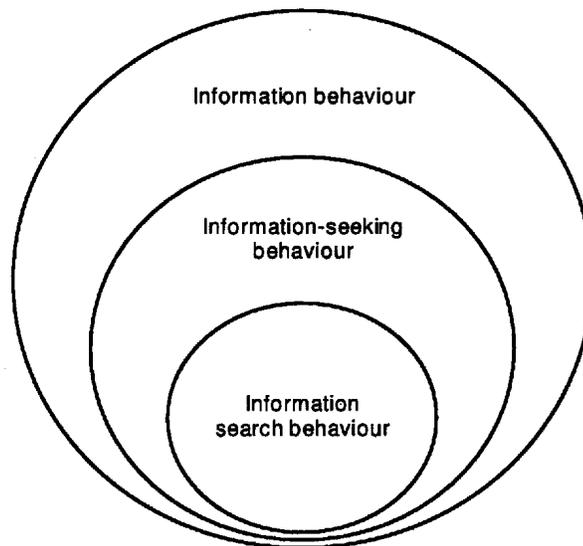
In order to gain a complete understanding of the focus of OPAC literature, it is important to discuss the three distinct generations of OPACs in terms of information behaviour research. Consequently, the literature review begins with a brief introduction to this area:

#### **2.2.1 Information Behaviour Research**

T. D. Wilson, who has written numerous articles and papers concerned with the subject of information behaviour, defined the topic in a 1999 article: 'Models of Information Behaviour Research'.

'By information behaviour it is meant those activities a person may engage in when identifying his or her own needs for information, searching for such information and using or transferring information' (Wilson, 1999: 249)

This definition details the breadth of the study of information behaviour. Consequently, it is not surprising to find that information behaviour research has developed specific concerns which, though connected, are often studied separately to one another. Wilson's nested model of information seeking and information searching research areas (Wilson, 1996) can be used to clearly illustrate this:



**Figure 1**

The outer circle represents the total area of information behaviour. Within this, the two concerns of information seeking behaviour and information search behaviour exist - with the latter being nested into the former. Wilson explains the differences between these two subsets:

‘...information seeking behaviour, ...[is] particularly concerned with the variety of methods people employ to discover, and gain access to information resources, and information searching behaviour being defined as a sub-set of information seeking, [is] particularly concerned with the interactions between information users ... and computer based information systems.’ (Wilson, 1999: 263)

Research into OPACs has been known to exist within each of these subsets, however there have been distinct shifts in the position and the purpose of the research throughout the development of OPACs. These will now be discussed.

### **2.2.2 The First OPAC Generation**

Online Public Access Catalogues (OPACs) began to be implemented in libraries in the mid to late 1970s. Since then, they have seen three distinct generations. According to Charles Hildrith, whose article 'Online public Access Catalogs' (Hildrith, 1985) offers an early review of OAPC literature, the first and second of these generations occurred relatively close together before 1985.

During the transition from first to second generation OPACs, research appears to have resided simultaneously in both the information seeking and information searching subsets of information behaviour. Several studies conducted between 1979 and 1985, were primarily interested in how users were responding to OPACs, particularly if they were being used in favour of the still existing card catalogues, for example (Dowlin,1980).

Dowlin's article aims to establish user's acceptance of the first generation OPACs, at a time when they were beginning to be implemented in libraries. From his findings Dowlin concluded that:

'The terminal access [being compared to the card catalogue] was preferred by 85.4% of the respondents ... the major reason was that the system is easy use.'  
(Dowlin, 1980: 45)

Other popular reasons given in Dowlin's article include: the OPAC was '...faster than the card catalogue' and that the terminal 'tells where the book is and the number of copies' (Dowlin, 1980: 45). Overall, the respondents in Dowlin's article seemed keen for the OPACs to be implemented.

Similarly, researchers such as Knox and Miller (1981) and Sage et al (1981) concerned themselves with research in the information seeking subset of information behaviour, by developing queuing theories which enabled them to predict how frequently an OPAC might be used. These studies obviously had very

practical purposes, pertaining to decisions on whether libraries should implement OPACs and, if so, how many access terminals would be required. As a result of such studies Hildrith reports: 'It is clear that users have a positive attitude to the online catalogue and prefer any online catalogue to the card catalogue' (Hildrith, 1985:266) and, according to Large and Beheshti in their later review of OPAC literature, 'OPACs were popular for eliminating the tiresome and time consuming need to search through tightly packed draws of filing cards' (Large and Beheshti, 1997:111).

However, despite their initial apparent welcome and popularity with library users, OPACs were also immediately recognised to have several limitations. In many of those early reports which had taken place within the information seeking subset, including Dowlin's, it was shown that library users had already begun to desire even greater accessibility and effectiveness from the OPACs. Dowlin's (1980) research for example, suggested that if the search capabilities of the OPAC were improved, the number of people who preferred OPACs to card catalogues would rise from 85.4% to 94%. In particular, users were said to be concerned by the initial lack of a subject searching facility provided by the OPAC.

Consequently, during this period, research into OPACs also existed in the information searching subset. Initial studies within this area began as early as 1981 when transaction log analysis was conducted, for example (Norden and Lawrence, 1981). This type of research 'characterises user behaviour in terms of types of searches done, patterns of use, time spent on searching, errors made and system problems' (Hildrith, 1985:271). Norden and Lawrence (1981) suggested that the purpose of this type of study was to inform the better design of future information retrieval systems. Additionally, other studies of this type were also influential. Gouke and Pease for example, recognised in their 1982 study which compared the searches of what were considered to be problem titles, in both card and online catalogues, aimed to establish how users would cope 'with a totally different tool' (Gouke and Pease, 1982: 137). It transpired that '... success with the online

catalogue was 40.5% less [than with the card catalogue]' (Gouke and Pease, 1982: 142) Discussion of how 'patron' performance' could be remedied followed, suggesting that improvements were needed, not only with user education but also with system design, particularly with how the system and the user interact. Consequently, this article lends support to an article written in 1981 that claimed:

'Access to information via a computer is typically difficult for any but a highly trained searcher ... libraries must ultimately provide information retrieval systems that require no special knowledge to use so that the whole spectrum of users can be accommodated' (Brenner et al, 1981: 63)

It was these types of studies and their conclusions which functioned to inform the second generation of OPACs.

### **2.2.3 Second Generation OPACs**

The second generation added to the first. It was consider more user friendly and provided 'keyword searching, Boolean matching browsing facilities and improved online help provision' (Large and Beheshti, 1997). Not surprisingly, the literature created on OPACs throughout this period was vast. However, unlike the research that had accompanied the first generation of OPACs, researchers seemed satisfied with the deployment of OPACs in libraries and so began to neglect the information seeking subset. Instead, the research that was produced was primarily concerned with studies of user behaviour at the OPAC terminal.

Occasionally research occurred that was positioned within the information seeking subset of information behaviour. However, any findings that were generated from such research usually functioned for the purpose of improving OPAC design. Articles by Hancock-Beaulieu (1987 and 1990) which concentrate on searching behaviour at the catalogue and at the shelves are good examples. Evidently, since card catalogues were removed from libraries, concern for improving design through user based studies has dominated. Even when research

has been conducted outside the information searching context, the purpose has been to improve the design of the OPAC. Overall, it seems any complete idea of how the OPAC has continued to function within the broader library environment post 1985, has been largely neglected. This trend can be seen to continue into the third generation of OPACs.

#### **2.2.4 Third Generation OPACs**

Large and Beheshti (1997), claim that the third generation of OPACs, emerging in the 1990s, saw further improvements to design and enhanced search and retrieval capabilities. Butterfield (2003) argues that OPAC research and design in this period were becoming increasingly influenced by the growing dominance of the World Wide Web.

It was not until the development of the World Wide Web that we see real pressures from users to develop more sophisticated search and display mechanisms for OPACs ... The World Wide Web and perceived universal access to content it provides have raised expectations for OPAC interface design' Butterfield – 2269

Butterfield argues the World Wide Web created a need to produce OPACs that could compete with the capabilities of web search engines in design and capabilities. Other research conducted in the 1990s supports this claim. Ferl and Millsop (1996) for example, conducted a transaction log analysis in their study of the University of California's library system MELVYL. Their findings revealed the great efforts users made to locate the information they required. It was concluded that users need to be provided with 'more vigorous contextual assistance by the system' (Ferl and Millsop, 1996: 90). According to Harmsen (2000), this is what has begun to emerge:

'One feature which has become almost standard for new library software is including links to full text or multimedia documents corresponding to a particular citation. Other features which have not yet become common but will soon do so

include: links to publishers, links to corporate sources, and links to journal titles. The latter usually provide tables of contents, and sometimes also offer direct access to full text documents.’ (Harmsen, 2000: 109)

As long the need remains to incorporate new features which improve the services of OPACs, research into the information searching subset of information behaviour research will surely continue to dominate, enabling researchers to understand how users prefer to interact with the system improvements. However, with such vast neglect of the information seeking subset, researchers are failing to understand properly how library users are exploiting the technology as part of their search within the wider library context.

### **2.3 Neglecting Types of Users**

In addition to the lack of focus within all areas of information behaviour, certain types of users have also been neglected from the scope of many studies. Large and Beheshti’s (1997) review of OPAC literature introduces this limitation of OPAC research, suggesting that the scope of OPAC literature has too frequently been confined to academic library environments. This claim was supported by Slone (2000):

‘...most studies do not focus on users in a public library setting. Rather the focus is more on academic libraries. Unlike academic libraries, guided by the missions of the educational institutions and serving users with at least one major characteristic in common, public libraries must advance the needs of a more indeterminate, inclusive and heterogeneous population.’ (Slone, 2000: 758)

Slone argues that research in academic libraries of OPACs fails to adequately inform OPAC development which is useful in public libraries, thereby suggesting the necessity of research which is exclusive to OPACs in a public library environment.

Another area that OPAC research seems to have greatly neglected is use of the OPAC within the children's library. Only in the last decade has research into this area emerged and it has largely been the work of Paul Solomon. Solomon produced several articles recording his research into this area. For example: 'Children's Information Retrieval Behaviour: A case analysis of an OPAC' (1993) and 'Children, Technology and Instruction: A Case Study of Elementary School Children Using an Online Public Access Catalog' (1994). However these studies are based in school library settings, once again failing to account for any differences which might be present within the public library environment.

Although such limitations concerning the scope of OPAC literature have been recognised, few research attempts have occurred that aim to broaden the scope. Where efforts have been made, they are usually focused within the information searching subset of information behaviour adding further neglect to the information seeking subset.

## **2.4 Conclusion**

The dissertation's aims and objectives have been largely informed by the observations made in this literature review. Below are listed some of the main points raised by the review, followed by a discussion of how the research idea for the dissertation has drawn from them.

- Despite the recognition that research conducted on OPACs in academic libraries cannot be applied more generally to OPAC use in public libraries, little research has been conducted on OPACs within the public library setting.
- Research has had a tendency to focus on adults. Neglecting any differences that children may demonstrate when using the OPAC.
- Research has featured predominantly within the information searching subset of information seeking behaviour. This has had the aim of improving the design of the OPAC. Notably, no cases of research existing in the information seeking subset

of information behaviour were found within research from the third OPAC generation.

On the basis of these findings from the literature review, it was considered important to focus on OPAC use in public libraries and concentrate on the information seeking, rather than searching, subset of information behaviour research. By concentrating on these relatively neglected areas the dissertation has the potential to contribute to the understanding of OPACs in public libraries. Although studies of children's use of OPACs were also found to be lacking, it was felt that an improved understanding of adult's use within the information seeking subset would be equally beneficial at this time.

### 3 Chapter 3 – Methodology and Methods

#### 3.1 Theoretical Framework

The theoretical framework from which the research draws, informs many of the decisions regarding both the chosen methodology and methods of research selected.

The theoretical framework of the dissertation is positioned within the research area of information behaviour. Wilson’s nested model of information seeking and information searching research areas (as described in the literature review - figure 1) has allowed the more precise understanding of the exact concern of this dissertation’s research as being located in the information seeking subset of information behaviour research – for example, within the wider library setting as opposed to at the OPAC terminal.

However, as the research aims to ascertain what factors may influence the public’s use of OPACs, it has been necessary to identify several possible factors which have been previously perceived as influencing information seeking behaviour. The factors identified have been drawn from Wilson’s 1996 model of information seeking behaviour – see figure 2 below:

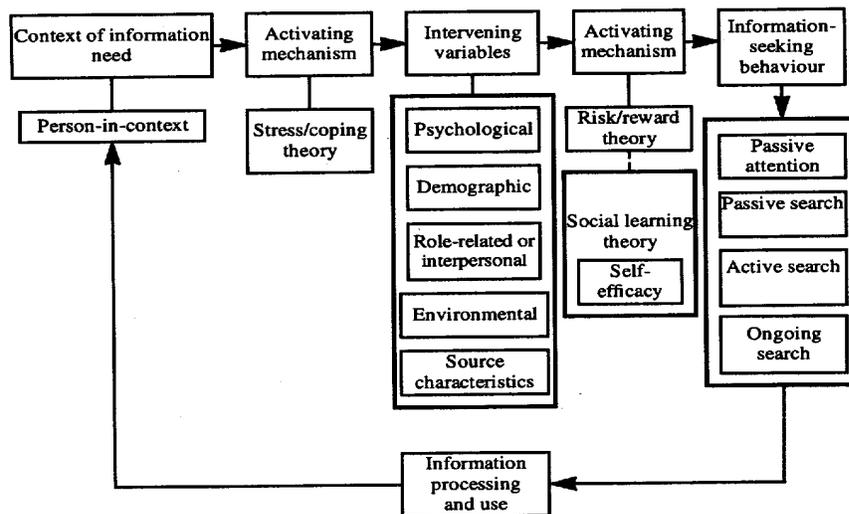


Figure 2

This model illustrates the factors and processes involved in recognising the need for, and in executing, information behaviour within an information seeking context. Consequently, the model has informed a great deal of the research presented in this dissertation. Unfortunately, the model is not perfectly suited to the study of OPAC use in libraries. Consequently, both the limitations and advantages of utilising the model will now be discussed:

Wilson's model has identified several variables which can influence information seeking behaviour: psychological, demographic, role related or interpersonal, environmental and source characteristics. These are referred to as intervening variables. The intervening variables have the potential to influence information seeking behaviour, usually impeding it but also having the ability to encourage information seeking behaviour (Wilson:1996). Consequently, Wilson positions the intervening variables in between those elements of the model which illustrate the initial processes of recognising the need to seek information and the action of conducting the information seeking behaviour itself. However, Wilson also acknowledges that the intervening variables do not have to be positioned in this location as they also have the potential to influence information seeking behaviour in other areas of the model:

'There is, however, a certain difficulty in positioning the barriers between the identification of information-seeking as a suitable coping strategy and the information seeking behaviour itself ... [The intervening variables] particularly those at the level of the person, may act to prevent the initial emergence of a coping strategy, or may intervene between the acquisition of information and its use' (Wilson, 1996:556)

This acknowledgement is particularly beneficial for the study of the factors that influence the public's use of OPACs. The reason for this emerges because the position of the intervening variables in the model as Wilson presents it, show that they function in their role before an individual actually embarks on any information

behaviour. However, for the purposes of this dissertation, the individuals will have already passed this stage of the process and have begun actively seeking the information they require – in other words, they have already begun their search and so have entered the library. Subsequently, the dissertation will focus on how the intervening variables may prevent or encourage a specific type of searching within the library environment. Consequently, the intervening variables can be seen to occur after the information seeking behaviour has been initiated and not before.

However, the model can also be applied more fully as it shows how other factors, including information need, stress and coping theory, risk and reward theory, social learning theory (including self efficacy), the stages of the information seeking process and information processing and use, can have an effect on information seeking behaviour. For the purposes of this dissertation, not all of these factors have been utilised in the research and, in a similar manner to the intervening variables, others have been adapted or interpreted slightly differently to how Wilson may have intended. This allows them to be better suited to the study of OPAC use. Each of these factors are discussed more thoroughly in the methods section of the dissertation, which provides an indication of how the research methods adopted have been informed by the need to contain the different elements from Wilson's model.

Despite the incompatibility of all the elements of Wilson's model to the research presented in this dissertation, it was still thought appropriate to attempt to overcome these rather than to abandon the use of the model entirely for the following reasons:

- The model has an extremely functional characteristic: 'The model can be regarded as a source of hypotheses, which is a general characteristic of models of this kind' (Wilson, 1999: 253). As such, the model has been used in order to develop a series of hypotheses regarding the factors that influence the public's use of OPACs

- The model can also be considered as comprehensive as it attempts to integrate several earlier models of information behaviour including: Wilson's (1981) model of information seeking behaviour, Dervin's Sense Making theory, Ellis' (1989) behavioural model of information seeking strategies and Kuhlthau's model of the stages of information seeking behaviour.
- Additionally, Wilson has identified the value of incorporating studies of information behaviour from other disciplines into the model, including:

'The study of personality in psychology, the study of consumer behaviour, innovation research, health communication studies, organisational decision making, [and] information requirements in information system design'. (Wilson,1996: 551)

This adds to the comprehensiveness of the model.

Consequently, despite its limitations, the model is still regarded as extremely useful in its ability to provide a sound theoretical framework for the research presented in this dissertation.

### **3.2 Methodology**

The methodology of the research follows a deductive approach. This approach was selected as the most appropriate for the research because it allows for the testing of those factors identified in Wilson's model. It compliments the aim to view those factors as series of hypotheses that need to be confirmed or refuted.

### **3.3 Methods**

The research utilises predominantly quantitative methods of investigation. According to Bryman (2001) these methods offer high generalisation and reliability. It was also intended that some qualitative techniques be incorporated into the data collection methods, allowing one of the limitations of quantitative data to be surmounted by illuminating the data responses. Two methods of investigation were selected for the research: a questionnaire and follow-up interviews.

#### **3.3.1 The Questionnaire:**

##### **3.3.1.1 Benefits and limitations of the method:**

It was important to incorporate the different factors identified in Wilson's model into the questionnaire. Unfortunately this resulted in the inevitable drawback of the questionnaire becoming long. Long questionnaires are considered to have several limitations. In particular, respondents feel inclined to rush their responses to the questions in order to complete the questionnaire quickly. This affects the validity of the responses given and therefore how representative they are.

Despite this, the questionnaire was still felt to be the most appropriate method available. Questionnaires allow relative ease of distribution compared to interviews, and can generate high response rates. Consequently a larger sample could be selected allowing more precise generalisations to be formed from the data. In addition, other research methods were felt inappropriate for collecting the type of data needed. Wilson's factors require a certain amount of information concerning an individual's subjective interpretations of their actions. Consequently observations would not have been effective. Likewise, a shorter questionnaire, though potentially more reliable, could not allow all of the data required to be collected.

When attempting to overcome some of the limitations of long questionnaires, the design and distribution of the questionnaire were taken into consideration.

#### **3.3.1.2 Questionnaire distribution:**

It was important for respondents to be able to draw on the memory of their search inside the library whilst completing the questionnaire. Therefore, in order to reduce the risk of people forgetting what actions they took, it was important for the questionnaire to be distributed to respondents as they were leaving and completed before they exited the library. Consequently, as well as increasing the validity of the responses in terms of the respondents memory, the method of distribution had an additional benefit, ensuring a high response rate. Most of the questionnaires distributed were completed and handed back.

#### **3.3.1.3 Questionnaire sampling:**

The questionnaire aimed to select a random sample from the user population of Sheffield libraries. However, because respondents had to have used the library on the day they completed the questionnaire, it was impossible to select respondents in advance from a sampling frame. Even if it were possible, due to data protection policy, a sampling frame of Sheffield libraries' users was unavailable. Consequently it was felt that the only way to achieve a random sample was through distributing the questionnaires as users were exiting the library. This allowed each library user to have an equal probability of being included in the sample.

It was intended that the questionnaire be distributed to over 100 library users. This was appropriate for the size of the study being done and allowed a greater likelihood of precision than a much smaller sample would have allowed.

#### **3.3.1.4 Question types:**

The questionnaire utilised predominantly closed questions in order to assist data analysis and contained three sections. The first section was to be answered by all respondents. The second was to be answered only by those respondents who had not used the OPAC and the third only by those who had used the OPAC. In the second and third sections it was felt appropriate to use Likert scales as not only do these allow easy comparisons to be made between the sets of data, they also allow questionnaires to be completed fairly quickly. This helped to reduce the length of time it would take for respondents to complete the questionnaire and therefore helped overcome the main weakness of long questionnaires.

#### **3.3.1.5 Questions:**

Bryman suggests that there are a number of rules for designing questionnaires including: 'Always bear in mind your research questions' and 'consider what you want to know' (Bryman, 2001: 149) The questionnaire design has been driven almost entirely by these two issues. In wanting to establish what those factors that influence the public's use of OPACs are, the questionnaire needed to be able to test those factors identified in Wilson's model allowing an understanding of their impact on OPAC use. Consequently, all of the questionnaire's content derives from Wilson 1996 model of information seeking behaviour.

Below is an explanation of the factors present in Wilson's model, explaining decisions regarding the way these factors have been incorporated into the questionnaire through the types of questions asked.

### 3.3.1.5.1 Intervening Variables

Several questions were designed to establish the effect of the intervening variables on OPAC use. A full list of the questions showing which questions pertain to which intervening variables features below:

Personal Characteristics:

Wilson suggests that personal characteristics, including physiological characteristics, cognitive characteristics, emotional characteristics, educational level and demographics can act as barriers to a person's information seeking behaviour. Whilst most of these barriers are self explanatory, it is important to note that Wilson recognised that cognitive barriers can either refer to a lack of knowledge or understanding to support existing values and beliefs (termed as cognitive dissonance) or simply the lack of cognitive ability to do something. Due to the nature of the OPAC being an information source, rather than information itself, the research here has focused upon cognitive variables in their latter sense.

Questions establishing the impact of the intervening variables on OPAC use are as follows:

#### *Physiological*

Only those respondents who had not used the OPAC answered the following question relating to physiological variables:

- Please indicate the extent to which you agree with the following statement: I did not use the OPAC because I have a physical reason that prevents me from using it.

#### *Cognitive variables*

- Have you ever used this library before?
- How often do you generally use this library?
- How well do you consider yourself to know your way around this library?
- When you first entered the library today, did you have a good idea of what actions you needed to take to find your required information?

Only those respondents who had used the OPAC answered the following questions relating to cognitive variables:

- Please indicate the extent to which you agree with the following statement: I used the OPAC because I know how to use it
- Please indicate the extent to which you agree with the following statement: I used the OPAC because I understand what it can be used for

Alternatively, if the respondent had not used the OPAC the following questions would be answered:

- Please indicate the extent to which you agree with the following statement: I did not use the OPAC because I do not know how to use it
- Please indicate the extent to which you agree with the following statement: This is the first time I've ever heard of the OPAC
- Please indicate the extent to which you agree with the following statement: I did not use the OPAC because I am unsure what it can be used for

*Emotional variables*

- How comfortable did you feel when using the library today?

Only those respondents who had used the OPAC answered the following questions relating to emotional variables:

- Please indicate the extent to which you agree with the following statement: I used the OPAC because I feel comfortable using it
- Please indicate the extent to which you agree with the following statement: I used the OPAC because I felt confident in my ability to use it

Alternatively, if the respondent had not used the OPAC the following questions would be answered:

- Please indicate the extent to which you agree with the following statement: I did not use the OPAC because I have never used one before
- Please indicate the extent to which you agree with the following statement: I did not use the OPAC because I feel afraid to use it
- Please indicate the extent to which you agree with the following statement: I did not use the OPAC because I feel nervous about using it

*Educational Level*

- Please indicate if you have, or are currently studying towards, any of the following qualifications:

*Demographics*

- Please specify the following details about yourself:

Age

Nationality

First language

Occupation

Gender

Social/Interpersonal Variables:

Wilson stated:

‘Interpersonal problems are likely to arise whenever the information source is a person, or where interpersonal interaction is needed to gain access to other kinds of information sources.’ (Wilson1996: 559)

Although library users do not need to ask library staff in order to use the OPAC, it may be necessary for somebody who is unfamiliar with the OPAC to consult staff before use or in the process of using it. The analysis of the following questions relates to this idea. The questions attempt to identify whether library users feel

comfortable approaching staff for help regarding the OPAC and whether there is a relationship between the way library users regard library staff and OPAC use.

- Please tick any relevant boxes which indicate the action you took when trying to locate your information/book/CD/DVD etc. within the library today:
- If you took more than one action to search in the library today, please circle which action you took first, which you took second and which you took third:
- What action did you take to assist with your search before entering the library today?

Only those respondents who had used the OPAC answered the following questions relating to social/interpersonal variables:

- Please indicate the extent to which you agree with the following statement: I used the OPAC because I knew the library staff would be willing to help me

Alternatively, if the respondent had not used the OPAC the following question would be answered:

- Please indicate the extent to which you agree with the following statement: I did not use the OPAC because I felt that the staff would not want to help me

Environmental Variables:

Environmental variables were not explored using the questionnaire. Wilson identified environmental barriers as being of three types including time, geography and national cultures. These variables have been explored in relation to other factors within the questionnaire but not in relation to environmental variables. The reason for this is that Wilson makes it clear that environmental variables may physically prevent any information seeking behaviour from being initiated. Therefore, unlike the other variables identified by Wilson, they cannot easily be relocated to another area of the model. Therefore exploring environmental variables was particularly unsuited to the study of OPACs.

Economic Variables:

‘The economic issues related to information seeking behaviour fall into two categories: direct economic cost and the value of time.’ (Wilson:1996: 559)

Because there are no direct financial costs involved in using the OPAC, questions that sought to establish if economic factors influence OPAC use relate directly to time. They include:

- Where have you looked for this information before?
- Please indicate if any of the following factors influenced your choice to search in the library today?
- Approximately, how much time did you spend searching in the library today?

Only those respondents who had used the OPAC answered the following questions relating to economic variables:

- Please indicate the extent to which you agree with the following statement: I used the OPAC because I had plenty of time to use it

Alternatively, if the respondent had not used the OPAC the following question would be answered:

- Please indicate the extent to which you agree with the following statement: I did not use the OPAC because I didn’t have enough time

### Source Characteristics:

Wilson identified three types of source characteristics: access, credibility and channel.

#### *Access*

‘The lack of an easily accessible source may inhibit information seeking altogether’. (Wilson:1996:561)

The questions in this section consider how accessible the OPAC is as an information source and attempt to ascertain whether this proves to be a factor that influences the public’s use of OPACs.

Only those respondents who had used the OPAC answered the following questions relating to access of the information source:

- Please indicate the extent to which you agree with the following statement: I used the OPAC because I know exactly where it is positioned in the library.

Alternatively, if the respondent had not used the OPAC the following question would be answered:

- Please indicate the extent to which you agree with the following statement: I did not use the OPAC because I do not know where it is situated in the library

#### *Credibility*

‘If a seeker of information discovers that an information source is unreliable in the quantity and accuracy of the information delivered he or she is likely to regard the source as lacking in credibility’ (Wilson:1996:561)

The questions here attempt to reveal if credibility is a factor that influences the public’s use of the OPAC however, rather than looking at only the perceived

credibility of the OPAC, the questions take into account the perceived credibility of other sources as these may also influence OPAC use.

- If you asked a librarian for assistance, how successful was this?
- If you browsed the shelves how successful was this?
- If you searched using the OPAC, how successful was this?

Only those respondents who had used the OPAC answered the following questions relating to the credibility of the information source:

- Please indicate the extent to which you agree with the following statement: I used the OPAC because I generally find the information I need when I use it
- Please indicate the extent to which you agree with the following statement: Searching the OPAC is more accurate than asking staff for assistance
- Please indicate the extent to which you agree with the following statement: Searching the OPAC is more accurate than browsing the shelves

Alternatively, if the respondent had not used the OPAC the following questions would be answered:

- Please indicate the extent to which you agree with the following statement: I did not use the OPAC because I do not generally find what I'm looking for when I use it
- Please indicate the extent to which you agree with the following statement: I did not use the OPAC because I have tried to use it before but was not successful
- Please indicate the extent to which you agree with the following statement: I believe browsing the shelves is more accurate than using the OPAC
- Please indicate the extent to which you agree with the following statement: I believe asking staff is more accurate than using the OPAC

### *Channel*

Channel refers to the preferred channel of communication through which people like to receive their information. In this study, channel refers directly to whether people prefer to gain information via asking a librarian, browsing the shelves or using the OPAC.

- If you took more than one action to search in the library today, please circle which action you took first, which you took second and which you took third.

Only those respondents who had used the OPAC answered the following questions relating to the channel of communication:

- Please indicate the extent to which you agree with the following statement: I prefer to use the OPAC rather than just browsing the shelves
- Please indicate the extent to which you agree with the following statement: I prefer to use the OPAC than to ask for the assistance of library staff

Alternatively, if the respondent had not used the OPAC the following questions would be answered:

- Please indicate the extent to which you agree with the following statement: I did not use the OPAC because I prefer to browse the shelves
- Please indicate the extent to which you agree with the following statement: I did not use the OPAC because I prefer to ask staff to help me locate items

### 3.3.1.5.2 Other Factors

The remainder of the questions in the questionnaire took into account the other factors in Wilson's model which include: Information need, stress and coping theory, risk and reward theory, social learning theory (including self efficacy), the stages of the search and information processing and use.

#### Information Need:

Wilson's incorporation of information need into his 1996 model of information seeking behaviour, draws from earlier information seeking behaviour models, including Wilson's (1981) model of information seeking behaviour, Dervin's (1983) Sense Making theory. Within these models information seeking is seen to arise as a consequence of need. In Dervin's model, information is sought to bridge a gap in an individual's understanding or knowledge. Put simply: information is sought in order to satisfy need.

Wilson's explanation of information need presents it as having two main characteristics. Firstly, information need is considered to be the primary motivating factor of information seeking behaviour and secondly, it is considered to be a subjective experience. As a consequence, information need is particularly difficult to establish within a questionnaire devised of largely closed questions. Only one question in the questionnaire directly sought to establish the respondent's information need:

- Please indicate why you need this information?

To which, possible answers included: Escapism, Emotional Fulfilment, Intellectual Fulfilment and Other.

However, other questions were also asked, including:

- Please indicate whether the information you needed from the library today was fiction or non fiction:
- Please provide further information by ticking all relevant boxes

These questions sought to understand more thoroughly the nature of the information required. It was hoped that an understanding of not why the need had arisen, but instead of the sort of thing that might fill it, would help provide valuable information concerning the public's use of OPACs.

#### Stress and Coping Theory:

Stress and coping theory suggests that an individual seeks out information as a means of coping with a stressful situation. This is considered problem focused coping (Wilson, 1996). Consequently, stress and coping theory represents another stage in the model where the need for information seeking behaviour originates.

Whilst it can be perceived that stress and coping theory may influence the public's use of OPACs, due to its complex nature, it was considered too complicated to be explored using the questionnaire. Consequently, no questions in the questionnaire relate directly to stress and coping theory.

#### Risk and Reward Theory:

Risk and reward theory in the study of information behaviour, is the idea that in seeking out information there may be certain risks involved. The greater the reward, the more risks a person may be willing to take. Consequently, risk and reward theory is closely connected to information need. People who perceive their information need to be of great importance, may be prepared to take greater risks. To explore this as a factor that may influence OPAC use, the following questions were devised.

- Approximately, how much time did you spend searching in the library today?
- Approximately how far have you had to travel to use the library today?

The questions above take into account Wilson's identification of different types of risk:

‘It [risk] is normally associated with issues of financial cost, but in setting out to search for information in any context we may be risking not only financial resources but also psychological and physical resources.’ (Wilson, 1996: 563).

This understanding of risk can be associated with social learning theory, particularly the self efficacy aspect of social learning theory – discussed below.

#### Social Learning Theory/Self Efficacy

Self efficacy can be described as a sense of personal mastery. It is a person’s belief in their own ability to cope with a given situation:

‘We may hypothesise, for example, that an individual may be aware that use of an information source may produce useful information, but doubt his or her capacity to properly access the source ... in such case failure to use the source might occur’ (Wilson: 1996: 563)

These questions relate to risk and reward theory because it can be perceived that a person may be prepared to risk performing certain types behaviour, in spite of their efficacy expectations, due the importance of their information need.

The questions incorporated into the questionnaire that enable the exploration of self efficacy and its connection to risk and reward theory, include:

- Please indicate the extent to which you agree with the following statement: I used the OPAC because I have used it before
- Please indicate the extent to which you agree with the following statement: I used the OPAC because I was shown how to use it by a member of staff
- Please indicate the extent to which you agree with the following statement: I used the OPAC because library staff encouraged me to use it
- Please indicate the extent to which you agree with the following statement: I used the OPAC because I find it easy to use

- Please indicate how important you felt your information need to be

Alternatively, if the respondent had not used the OPAC the following questions would be answered:

- Please indicate the extent to which you agree with the following statement: I did not use the OPAC because I would have liked library staff to help me use it
- Please indicate the extent to which you agree with the following statement: I did not use the OPAC because I have used it before but find it difficult to use
- Please indicate the extent to which you agree with the following statement: I did not use the OPAC because I have tried to use it before but felt confused

Information Seeking Behaviour: Types of Search:

Within the act of information seeking, Wilson acknowledges several different types of searching. These are presented within his model as:

**Passive Attention:** Where ‘information acquisition takes place without intentional seeking.

**Passive Search:** ‘Where one type of search ... results in the acquisition of information that happens to be relevant to the individual.

**Active Search:** ‘Where an individual actively seeks out information.

**Ongoing Search:** Where a search is conducted in order to expand or update knowledge acquired on a previous occasion.

Clearly, the type of search an individual is involved in may influence whether or not they use the OPAC. Therefore it is necessary to explore types of searching as factors that may influence OPAC use. However, due to the dissertation’s research taking place within a library environment where a person can be assumed to have activated some type of search behaviour, it was felt unfeasible to explore all types of search, particularly passive attention as a search type. However, certain questions

have been incorporated into the questionnaire that allow the identification of ongoing search and its implications regarding OPAC use:

- Was this the first time that you have searched for this information?
- Were your previous attempts to find this information successful?

#### Information Processing and Use:

Within Wilson's model, information processing and use is an important aspect linking back to information need. How and whether, a person processes and uses the information they have located forms part of information behaviour as a cyclical process. Finding information that fills a gap may lead to the identification of a new gap which will subsequently need to be bridged. Consequently, the process of information seeking will begin again.

It would be extremely complicated to explore information processing and use within the confines of the questionnaire, therefore no questions were included to allow an exploration of this issue.

### **3.3.1.6 Questionnaire Pilot Study:**

Bell (2005) stresses the need to pilot questionnaires before their distribution:

‘Always pilot your questionnaire no matter how pushed for time you are. Ideally it should be sent to people who are similar to your selected sample.’ (Bell, 2005: 152)

Following Bell’s advice, it was felt appropriate to pilot the questionnaire in an academic library setting. Users of an academic library are adequately similar to the users of a public library for the purposes of piloting the questionnaire. For instance, like public library users they have access to an OPAC and have an information need. Therefore the pilot was conducted in The University of Sheffield’s Main Library.

Six library users were asked to complete the questionnaire as they were exiting the library. Afterwards, they were asked a number of questions regarding their experience of completing the questionnaire (see Appendix 2).

It was felt that the pilot study would be most beneficial in its ability to ascertain how long users needed to spend in order to complete the questionnaire. In addition, how users felt about the length of the questionnaire could be established. It was found that all of the respondents in the pilot study spent between 5 and 10 minutes completing the questionnaire and that this length of time was regarded generally as acceptable.

One of the most interesting findings of the pilot study caused a number of questions to be rephrased. Many of the questions had referred to the item that library users required as ‘your information’ or ‘the information’. Library users in the pilot study felt that this was confusing as they did not regard certain types of material, as information. Thereby ‘information, book, CD, DVD etc.’ was inserted into the questionnaire to replace the word ‘information’.

### **3.3.2 Follow-up interviews:**

It was felt that certain aspects of Wilson's model could be explored more easily using follow-up questionnaires. Stress and coping theory for example, as a potential factor influencing the public's use of OPACs, was considered too complicated to be explored within the confines of a predominantly quantitative questionnaire. It was felt that interviews of a semi structured nature would allow the subjective nature of stress and coping theory to be explored more easily. Consequently the interviews were meant to accompany the questionnaires, allowing other potential factors to be explored which the questionnaire was unable to incorporate.

Unfortunately, due to its length, the data analysis of the questionnaire proved more time consuming than anticipated. Subsequently, there was no time to conduct the follow-up interviews. Although this left part of the data incomplete with regards to some of the factors of Wilson's model having not been explored, the lack of follow up interviews was not thought to have affected the findings drawn from the questionnaires. Consequently, the research was still able to meet its aims and objectives.

## **4 Chapter 4 - Data Analysis**

Data analysis has largely been conducted on responses to the questionnaire that was distributed at Sheffield library. However, a short section also considers the responses given to the pilot questionnaire. It was felt that these responses could also add insight into the factors that influence the public's use of OPACs

### **4.1 The Questionnaire**

For the purposes of the data analysis, the questionnaire's questions have been grouped into the factors from Wilson's model to which they correspond. The results for each question have been presented graphically. To offer ease of understanding, those questions which were able to be answered by the whole sample generally have three graphical representations: a bar chart representing the responses from the total sample and then two more bar charts, one representing OPAC users' responses, the other showing non users' responses. This allows for visual comparisons to be made, aiding the understanding of the data. Deviation from this only occurs when the questions allowed multiple responses, in which case pie charts or tables have been inserted. For the Likert scales from sections two and three of the questionnaire, pie charts have again been used to illustrate the patterns of response.

#### **4.1.1 Response Rate:**

Over 100 questionnaires were distributed. From the completed questionnaires it can be seen that 24 respondents had used the OPAC, leaving 102 who had not. It can therefore be said that less than 1/5 of the sample had used the OPAC.

#### **4.1.2 Terminology:**

Responses to the questionnaire were based on the respondents experience in the library that day. Those who did not use the OPAC that day have been classed as non OPAC users, regardless of whether they had used the OPAC on a previous occasion. Likewise, those who had used the OPAC have been classed as OPAC users.

#### **4.1.3 Testing Hypotheses**

All of the data from the questionnaire can be classed as categorical data. It was therefore appropriate to select the Pearson Chi-Square test as a means of testing hypotheses. Unfortunately, many of the hypotheses being tested required OPAC use (whether or not the respondent had used the OPAC) to be cross tabulated with another variable. As only 24 respondents had used the OPAC, many possible categories of response contained low figures. Consequently the Pearson Chi-Square test was unable to be reliably conducted for all of the factors in Wilson's model. Where the Pearson Chi-Square test has not been used, visual comparison has sufficed for establishing whether a factor influences OPAC use. This has been aided by the ability to split those responses from users and non users into separate sets of responses.

#### **4.1.4 Intervening Variables**

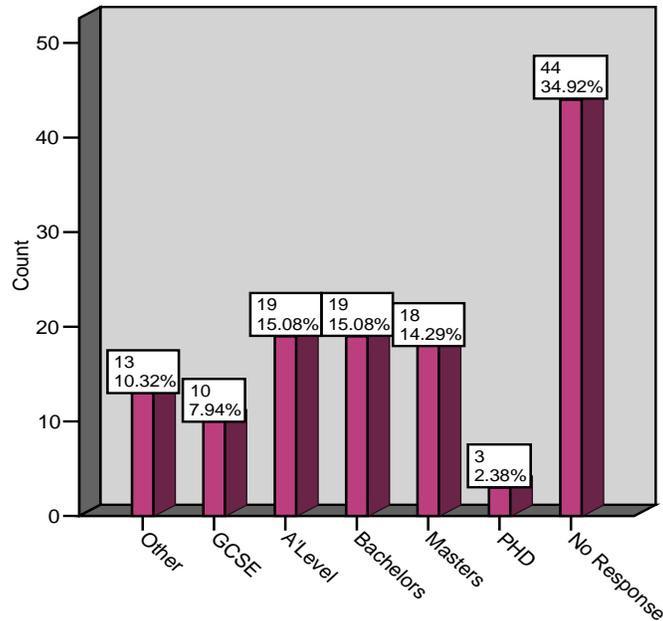
The data analysis in this section focuses on the intervening variables as identified by Wilson, including: Personal characteristics as intervening variables, social/interpersonal characteristics as intervening variables, economic variables and source characteristics as intervening variables.

##### **4.1.4.1 Personal Characteristics**

Wilson identified several personal characteristics which have been explored here including: educational level, demographics, physiological variables, cognitive variables and emotional variables. Each question attempts to ascertain whether these factors influence the public's use of OPACs.

###### **4.1.4.1.1 Educational Level**

Figure 3 illustrates responses to the question: 'Please indicate the highest qualification that you have or are currently studying towards'.



**Figure 3 – Please indicate the highest qualification you have or are currently studying towards.**

From the bar chart a high number of no responses can be recognised. Most of the responses are located within the ‘A’level’, bachelor’s degree’ and ‘Master’s degree’ response categories.

However, analysis of the data collected regarding respondent's educational levels from OPAC users and non users as separate sets of responses reveals several differences:

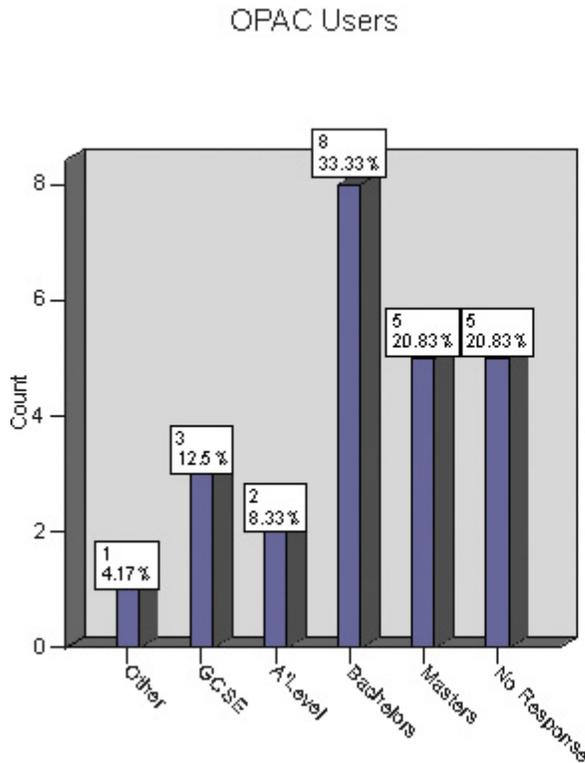


Figure 4 – OPAC users' educational level

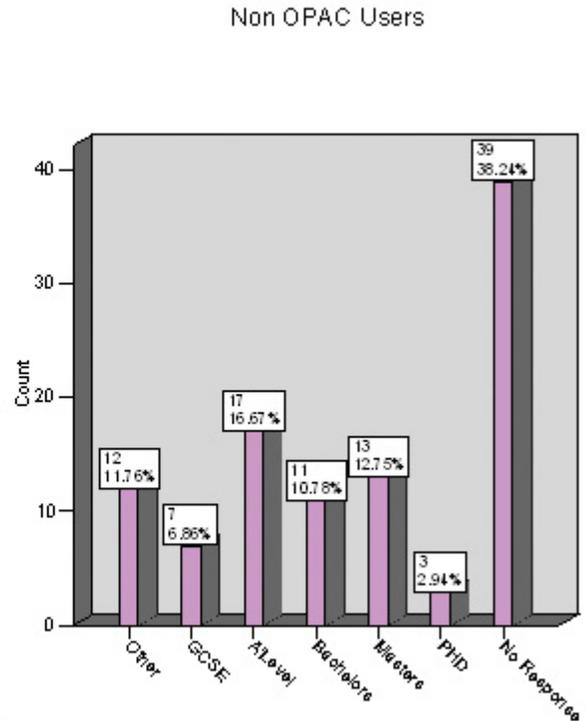


Figure 5 – Non users' educational level

OPAC users have a greater tendency to have either a bachelor's or master's degree as their highest qualification. Compared with this, non users tended to select 'A'levels' more frequently than OPAC users.

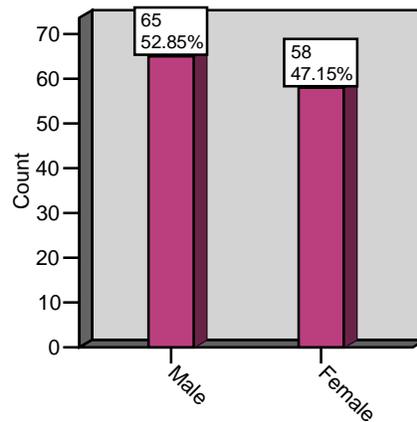
The Pearson Chi-Square test cannot be used reliably with regards to confirming the likelihood of a relationship between educational level and OPAC use because several categories have frequency counts less than 5. The results would probably be unreliable anyway given the vast number 'no responses' for this question. This can only be accounted for by bad questionnaire design. The question did not provide a category that allowed respondents to indicate that they did not have any qualifications.

#### 4.1.4.1.2 Demographics

The questionnaire established various user demographics including: Gender, nationality, occupation, age and first language.

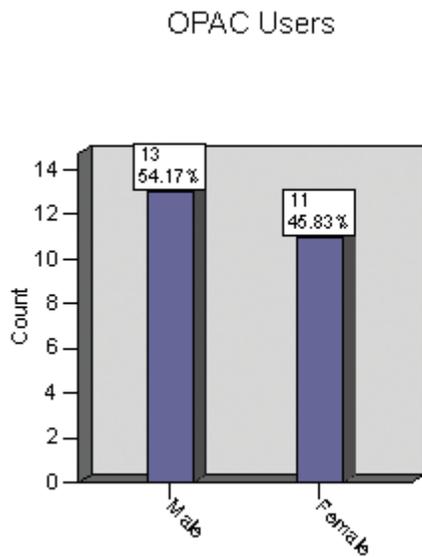
*Gender:*

Figure 6 illustrates the total sample's responses to the question: 'Please indicate the following details about yourself: Gender'.

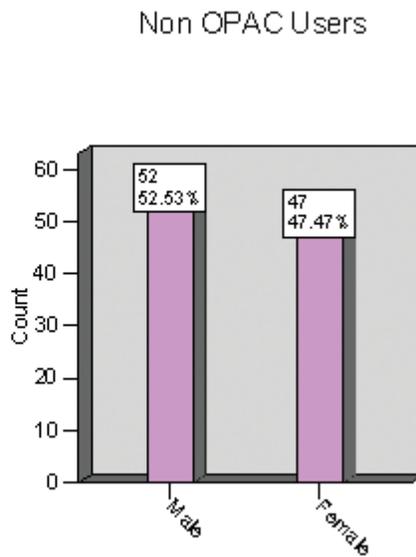


**Figure 6 – Gender of total sample**

This bar chart illustrates that the numbers of males and females responding to the questionnaire were fairly equal. When the result of OPAC users and non users are separated, there still appears to be no significant differences between males and females and use of the OPAC.



**Figure 7 – Gender of OPAC users**

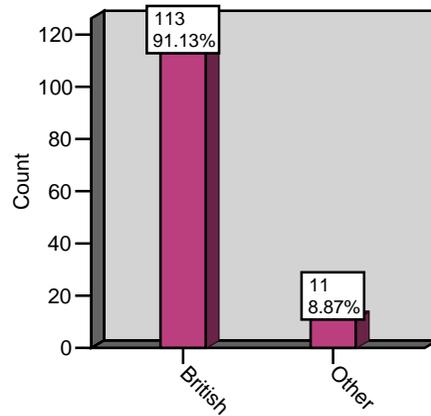


**Figure 8 – Gender of non users**

The Pearson Chi-square test confirms this observation: Where H0 equals: there is no relationship between gender and OPAC use and H1 equals: there is a relationship between gender and OPAC use, even when the significance level is set to 90% (0.1) the test shows that the null hypothesis must be accepted. The significance value is given as 0.885 and there is 1 degree of freedom. Therefore gender cannot be considered as a factor that influences the public's use of OPACs.

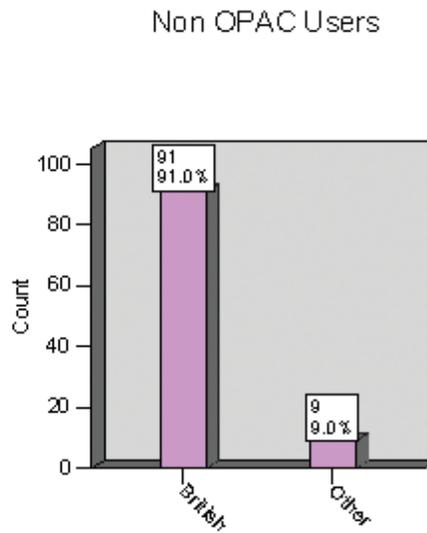
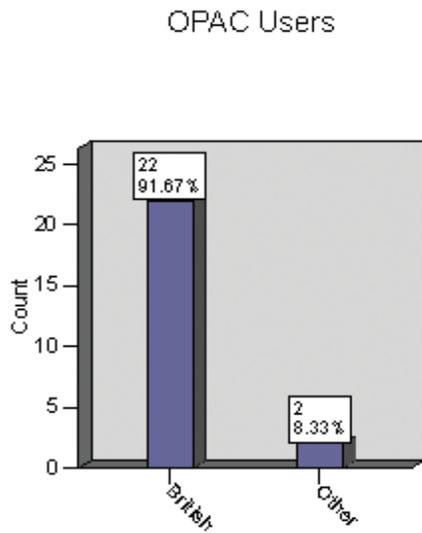
*Nationality:*

Figure 9 illustrates the total sample's responses to the question: 'Please indicate the following details about yourself: Nationality'.



**Figure 9 – Nationality of total sample**

Due to the low response rates in all categories other than British, the results from this question have been arranged into two categories: British and other. Clearly, the vast majority of respondents were of British nationality.



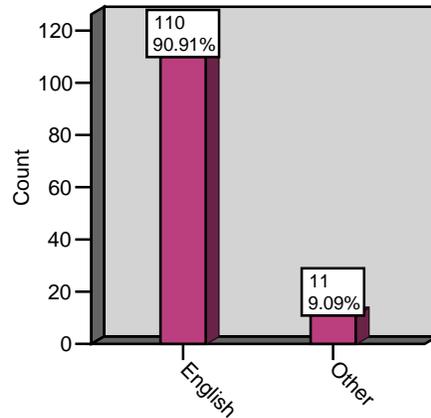
**Figure 10 – Nationality of OPAC users**

**Figure 11 - Nationality of non users**

As figure 10 and figure 11 illustrate, the same trend emerges when respondents are split into OPAC users and non users. Few differences are found between the responses from OPAC users and non users. Consequently it can be accepted that no relationship exists between nationality and OPAC use.

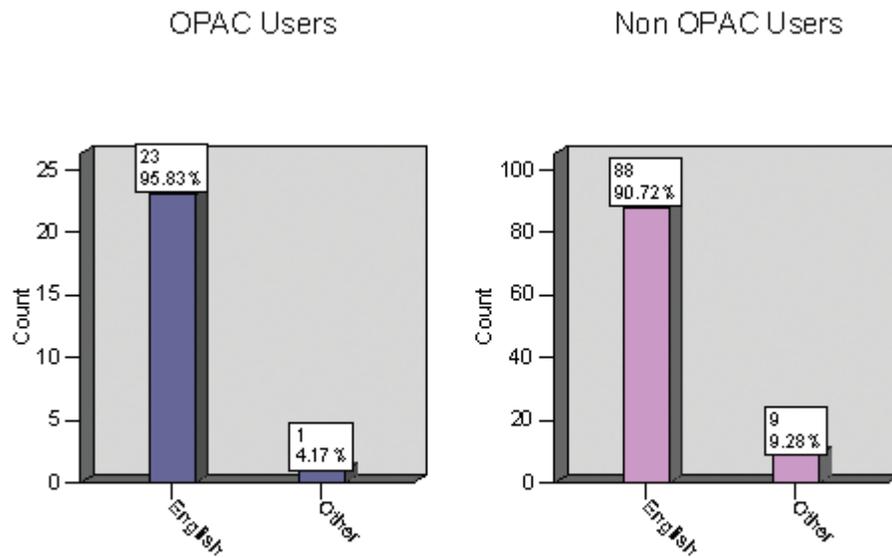
*First language:*

Figure 12 illustrates the total sample's responses to the question: 'Please indicate the following details about yourself: First Language'.



**Figure 12 - First language of total sample**

Due to the low response rates in categories other than English, the results from this question have been split into two categories: English and other. Clearly the majority of respondents in the sample spoke English as their first language. Again the same pattern emerges when the responses to this question from OPAC users and non users are separated.

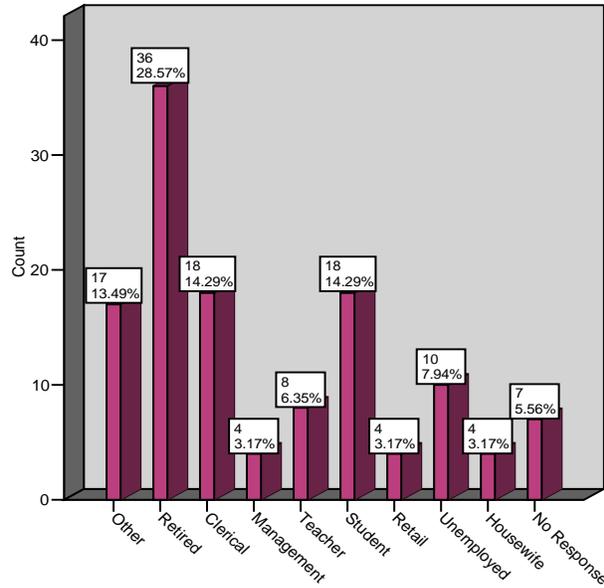


**Figure 13 – First language of OPAC users** **Figure 14 - First language of non users**

However, OPAC users have a slightly lower response rate in the ‘other’ category compared to non OPAC users. Yet when testing the hypothesis that first language influences the use of the OPAC, the Pearson Chi-Square test cannot be used reliably as the frequency count for one category is less than 5 and this equals over 20%. However, from observation, it does seem that there is a likely connection between the two variables. Out of the 10 respondents in the sample who had a first language that was not English, only 1 used the OPAC.

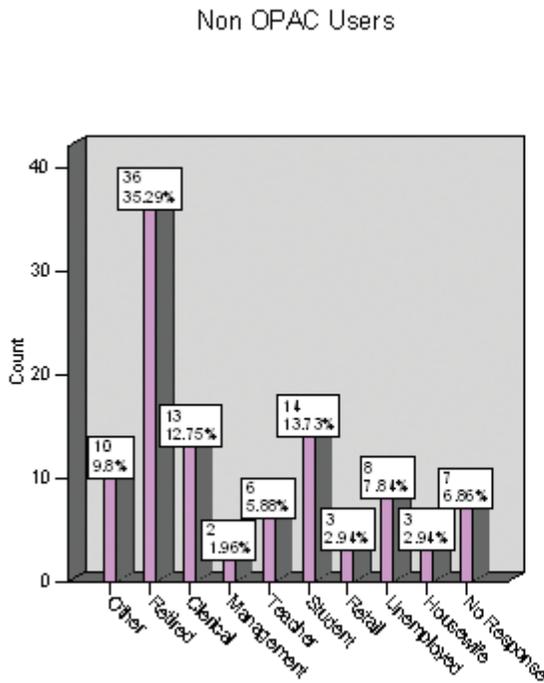
*Occupation:*

Figure 15 illustrates the total sample's responses to the question: 'Please indicate the following details about yourself: Occupation'.

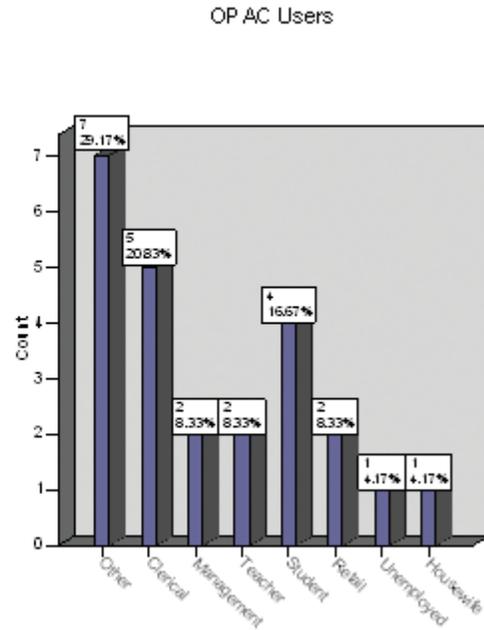


**Figure 15 – Occupation of total sample**

The total sample shows that the 'retirement' category was selected most commonly by people in the sample. When the responses are separated into those of OPAC users and those of non users, several important differences emerge:



**Figure 16 - Occupation of non users**



**Figure 17 - Occupation of OPAC users**

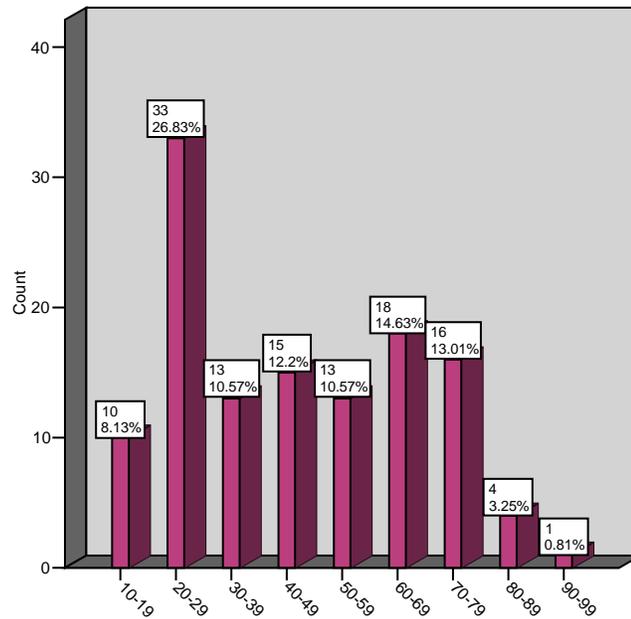
No notable deviations can be observed between the result of non users and those of the total sample. However, it is interesting to note that all those in the retired category are non OPAC users.

The results from the OPAC users' responses show that there are a several slight differences between the two sets of responses. 'Teacher' 'Management' and 'Student' categories all had slightly higher percentage rates in the OPAC user responses, whereas 'unemployed' and 'housewife' had lower. However, perhaps most significantly, those responses indicating the clerical category were significantly higher for OPAC users than for non users.

When the Pearson Chi-Square test is conducted to test whether there is a relationship between OPAC use and occupation, the frequency counts for several categories are too low for the test to be performed reliably. However, it is clear that retirement certainly does influence the use of the OPAC.

*Age:*

Figure 18 illustrates the total sample's responses to the question: 'Please indicate the following details about yourself: Age'.



**Figure 18 – Age of total sample**

The majority of people in the sample were aged in the '20-29' category with this group accounting for 26.83% of the total sample. When the results are split into OPAC users and non users the mode average for both is also the '20-29' category:

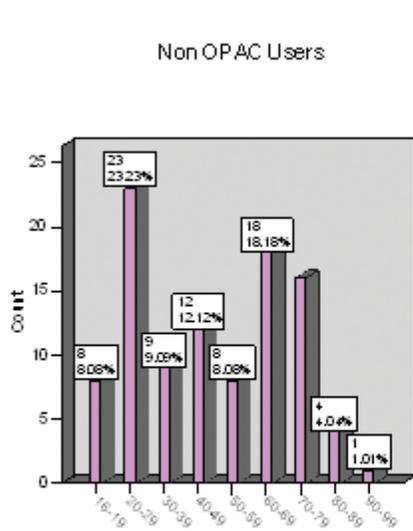


Figure 19 – Age of non users

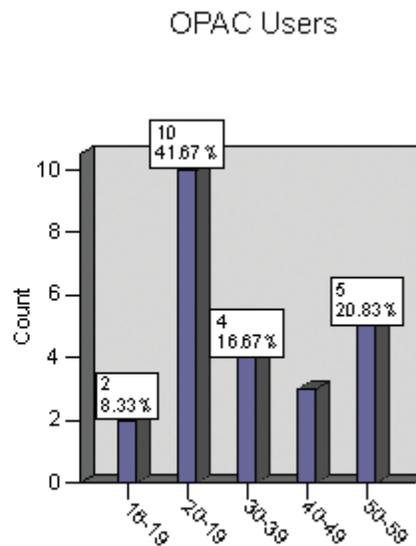


Figure 20 – Age of OPAC users

However, the range of responses varies with no OPAC users being aged over 59 years old. It therefore appears that age could be a factor that influences OPAC use. Once again, the Pearson Chi Square test is unable to be used to either refute or confirm this perceived relationship because of the high percentage of categories which contain frequency counts less than 5. Yet from observation, it can be concluded that age is a factor that influences the public's use of OPACs.

#### 4.1.4.1.1 Physiological Variables:

Figure 21 illustrates the responses of non OPAC users to the statement: 'I did not use the OPAC because I have a physical reason which prevents me from using it'.

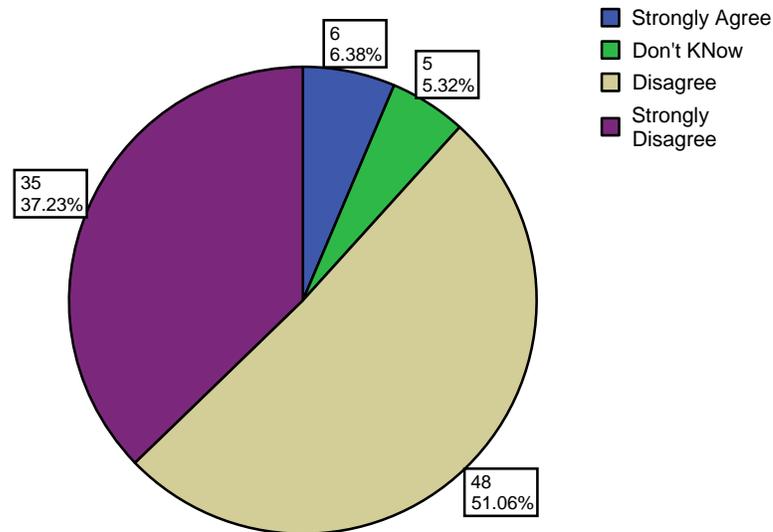


Figure 21 – Physical reason – Non OPAC users

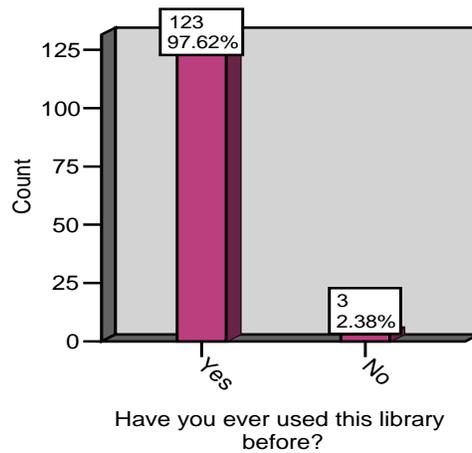
94 of the 102 non OPAC users responded to this question. The pie chart above, clearly illustrates the patterns of response showing that non users had a tendency to disagree with the statement. The Pearson Chi - Square test could not be used to confirm the existence of a relationship between these two variables as only non users were able to give responses to the statement. However, it does appear that a minority of non OPAC users do have a physical reason for not using the OPAC.

#### 4.1.4.1.4 Cognitive Variables

The cognitive variables explored here suggest that lacking the knowledge to use an information source may impede the search for information. The questions in this section have been split into two categories: those relating to being aware of how to use the library effectively and those relating to an awareness of how to use the OPAC.

#### *Knowledge and experience of the library:*

Figure 22 illustrates the total sample's responses to the question: 'Have you ever used this library before?'

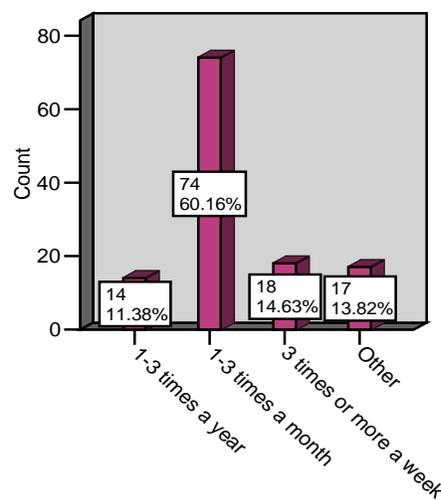


**Figure 22 – Have you ever used this library before – total sample responses**

From the total number of respondents in the sample it appears that only 2.38%, representing three respondents, were using the library for the first time. These three respondents were all non OPAC users. However, due to the response rate in this category having a count less than 5, the Pearson Chi-Square statistic would be

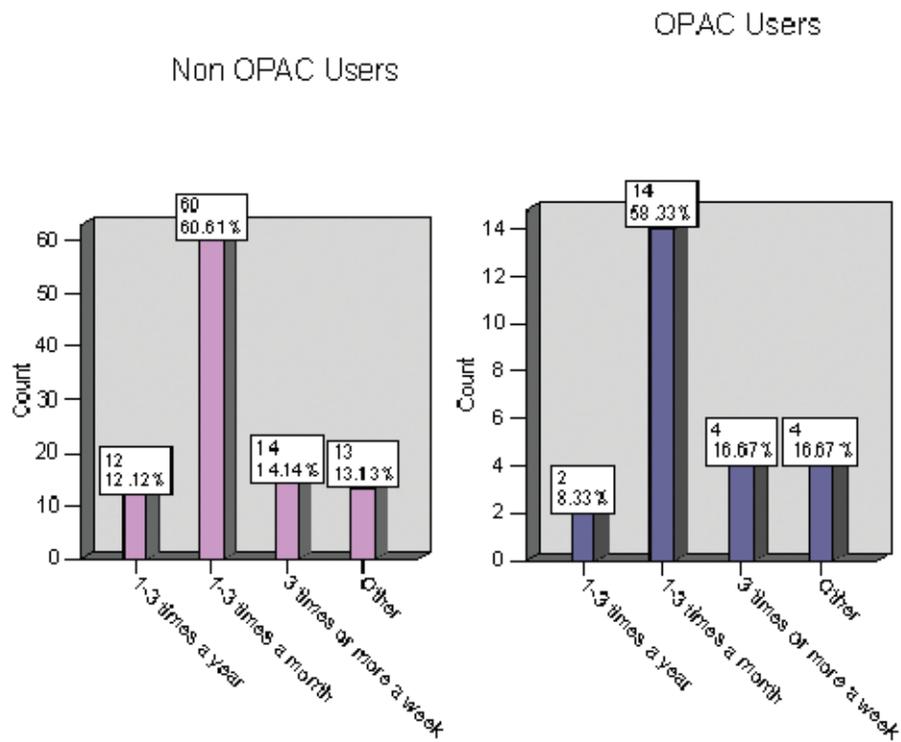
unable to make any reliable conclusions regarding the existence of a relationship between OPAC use and whether a person has used the library before.

Figure 23 illustrates the total sample's responses to the question: 'How often do you generally use this library?'



**Figure 23 – How often do you generally use this library – Total sample response**

The bar chart above, illustrates the responses from the entire sample. The mode indicates that the majority of respondents visit the library '1-3 times a month'. The bar charts below illustrate the pattern of response when the responses are split into those from OPAC users and non users:

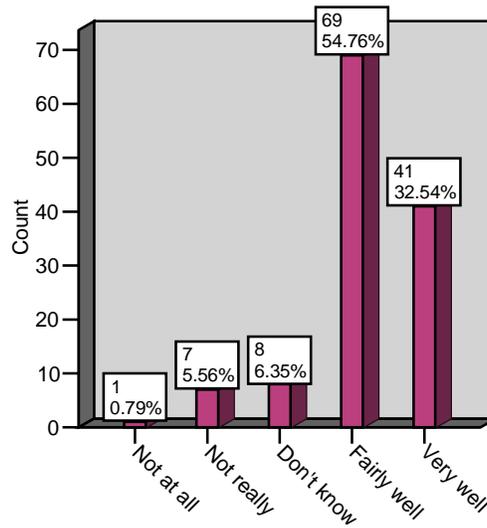


**Figure 24 – How often do you generally use this library? – non users**

**Figure 25 – How often do you generally use this library - OAPC users**

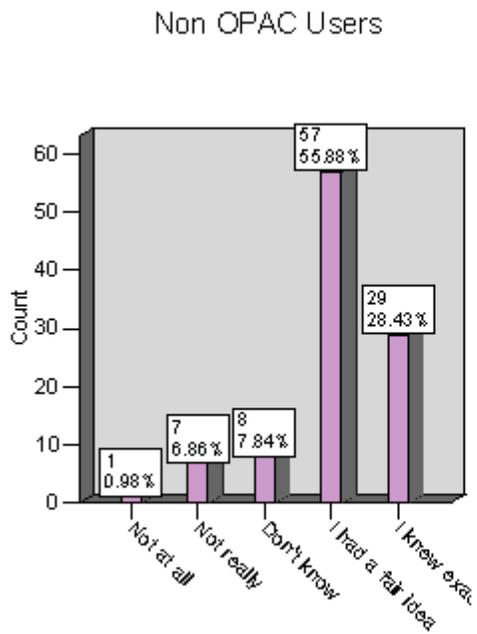
It is clear from these illustrations that no significant differences exist between the results from users and non users.

Figure 27 illustrates the total sample's responses to the question: 'How well do you consider yourself to know your way around this library?'

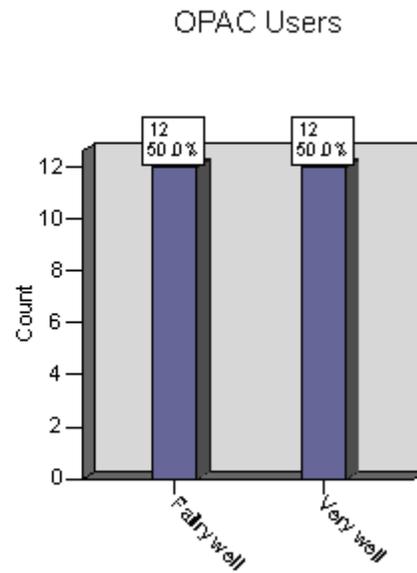


**Figure 27 – How well do you consider yourself to know your way around the library – total sample**

Most library users considered themselves to know their way around the library 'fairly well', with this response being 54.76%. A further 32.54% believed that they knew their way around the library 'very well'. This suggests that most people who use the library feel that they are familiar with it. The bar chart below illustrates that responses from just non users are very similar to those from the overall sample. Conversely, responses from OPAC users reveal some interesting differences particularly with regards to the dispersion of the results.



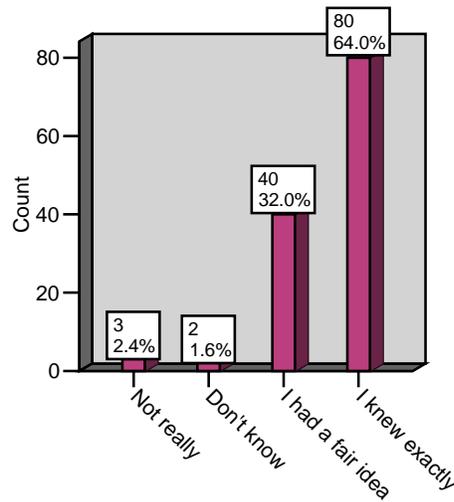
**Figure 28 – How well do you consider yourself to know your way around the library – non users**



**Figure 29 – How well do you consider yourself to know your way around the library – OPAC users**

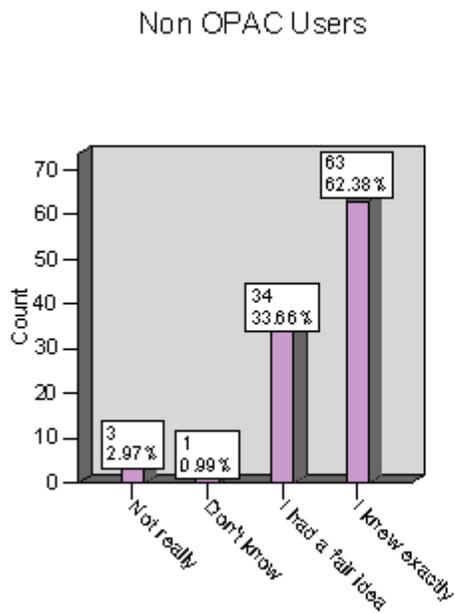
OPAC users responded only within the ‘I knew exactly’ and ‘I had a fair idea’ categories. Unfortunately, the significance of this observation is unable to be tested with any reliability due to the ‘not at all’ category possessing a count less than 5.

Figure 30 illustrates the total sample's responses to the question: 'When you first entered the library today, did you have a good idea of what actions you needed to take to find your required item?'

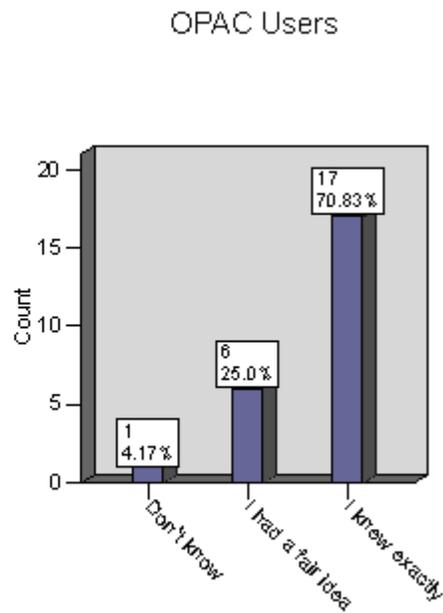


**Figure 30 – Knowledge of action needed to find item – total sample**

The vast majority of users claimed that they either 'knew exactly' or 'had a fair idea' about what actions they needed to take to find the information that they needed from the library. The response given from OPAC users and non users as individual sets of responses reveals similar tendencies:



**Figure 31 – Knowledge of action needed to find item – non user**

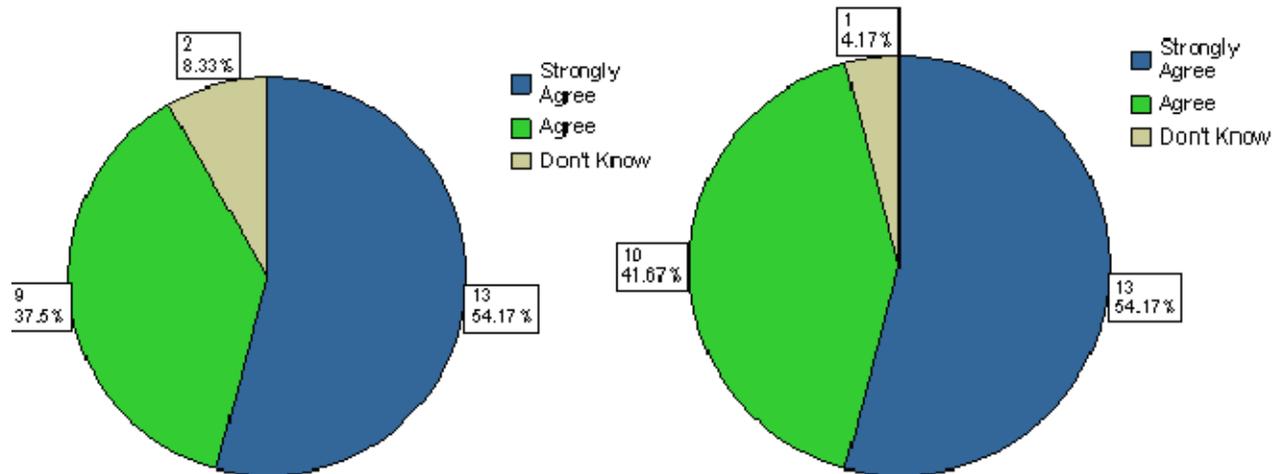


**Figure 32 – Knowledge of action need to find item –OPAC users**

However, perhaps tellingly, the results for non users in the ‘I knew exactly’ category are slightly lower than those of OPAC users. However, again the count within certain categories is less than 5. Consequently the Pearson Chi-Square test cannot be used to establish with any reliability the exact significance of this apparent relationship.

*Knowledge and experience of using the OPAC:*

Figures 33 and figure 34 illustrate the responses of OPAC users to the statements: ‘I used the OPAC because I know how to use it’ and ‘I used the OPAC because I understand what it can be used for’.

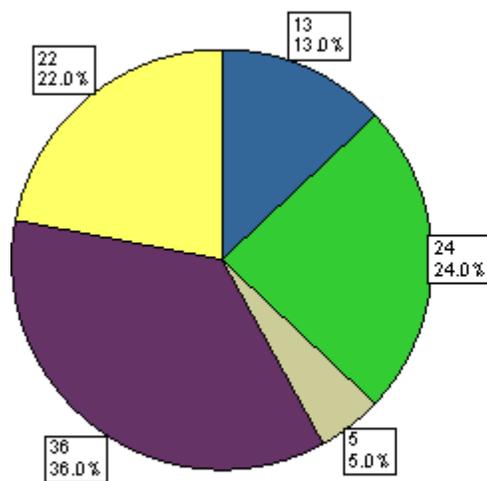


**Figure 33 – OPAC users’ knowledge of how to use.**

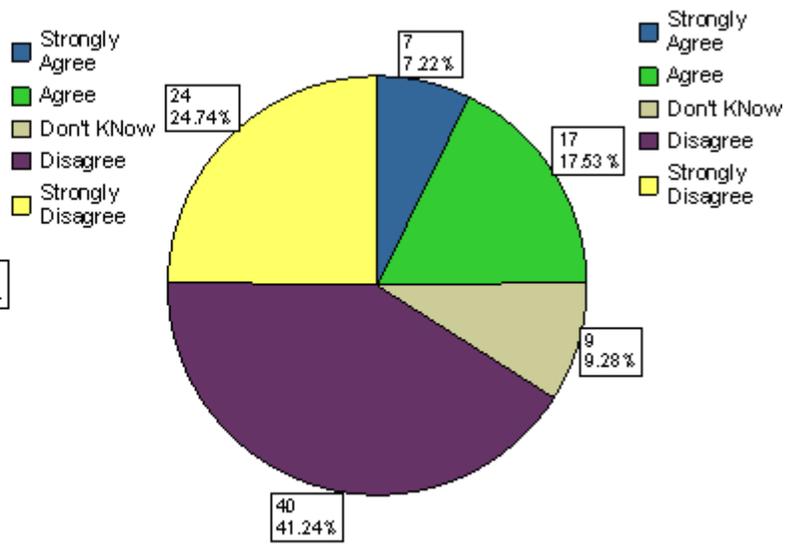
**Figure 34 – OPAC users’ understanding of OPAC functions.**

These two statements were put to OPAC users, the overwhelming majority of whom indicated a tendency to ‘strongly agree’ or ‘agree’ with both of the statements. However, as one respondent in the pilot study identified, knowing how to use the OPAC is a prerequisite of being able to use it. Consequently it is expected that the respondents would select those options in agreement with these statements. Certainly OPAC users would have understood that the OPAC could be used to find the items they were looking for.

These results can be compared to the responses of non OPAC users to the following two statements represented in figure 35 and figure 36: ‘I did not use the OPAC because I have never used one before’ and ‘I did not use the OPAC because I am unsure what it can be used for’.



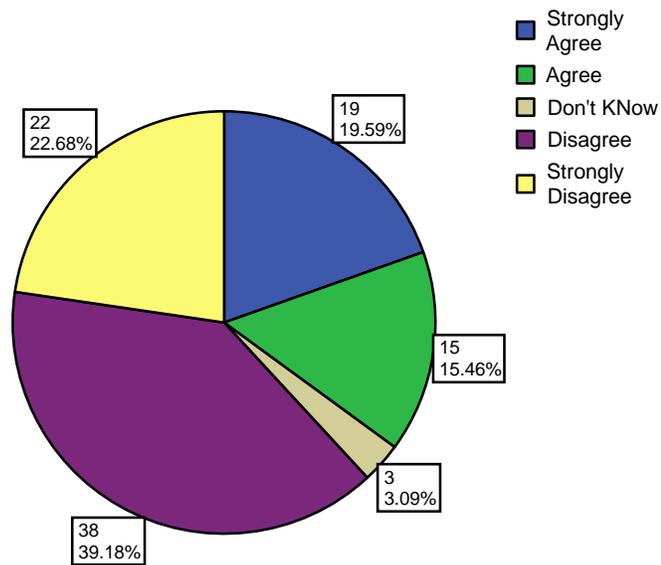
**Figure 37- OPAC users – never used OPAC before**



**Figure 38 – Non users' understanding of OPAC functions**

The range of responses here are much greater than those for the statements put to OPAC users. Each category gets a response. Most interestingly, the majority of non users disagree with the statements, suggesting that although they have not used the OPAC to assist them with their search, they do tend to be aware of the OPAC and what it can be used for.

The majority of non users also indicate that they have heard of the OPAC which supports those findings of the previous two questions. This is shown in figure 39 representing the responses to the following statement: 'This is the first time I have ever heard of the OPAC'.



**Figure 39 – Non user first time ever heard of OPAC**

To establish whether age had any bearing on the categories chosen, responses to the questions ‘This is the first time I have ever heard of the OPAC’, ‘I did not use the OPAC because I have never used one before’ and ‘I did not use the OPAC because I am unsure what it can be used for’ were cross tabulated with responses to age.

Although the Pearson Chi-Square test could not be conducted reliably for any of these cross tabulations, it was apparent from observation that no significant relationships were present with regards to age and responses to these questions. Consequently, the findings in this section suggest that knowledge of the OPAC is not a factor that influences the public’s use of OPACs for people of any age.

#### 4.1.4.1.5 Emotional Variables:

Figure 40 illustrates the total sample's responses to the question: 'How comfortable did you feel when using the library today?'

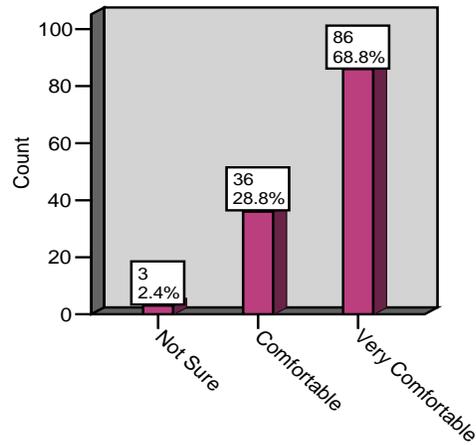


Figure 40 – Total sample, comfort in the library.

All responses from the entire sample are positioned within the 'very comfortable', 'comfortable' or 'unsure' categories. Few differences exist between the responses of users and non users:

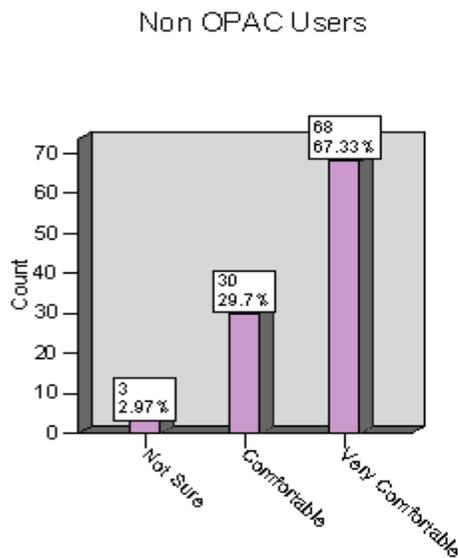


Figure 41 –Non users, comfort in library

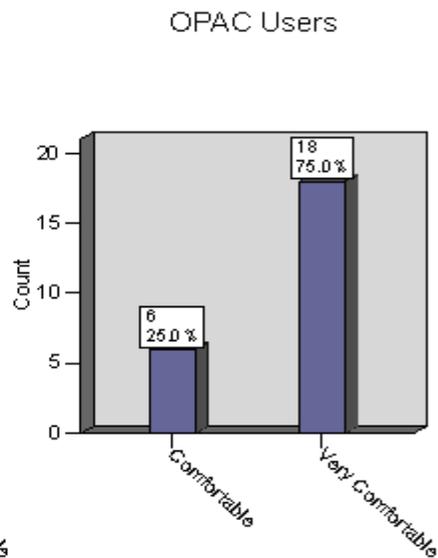
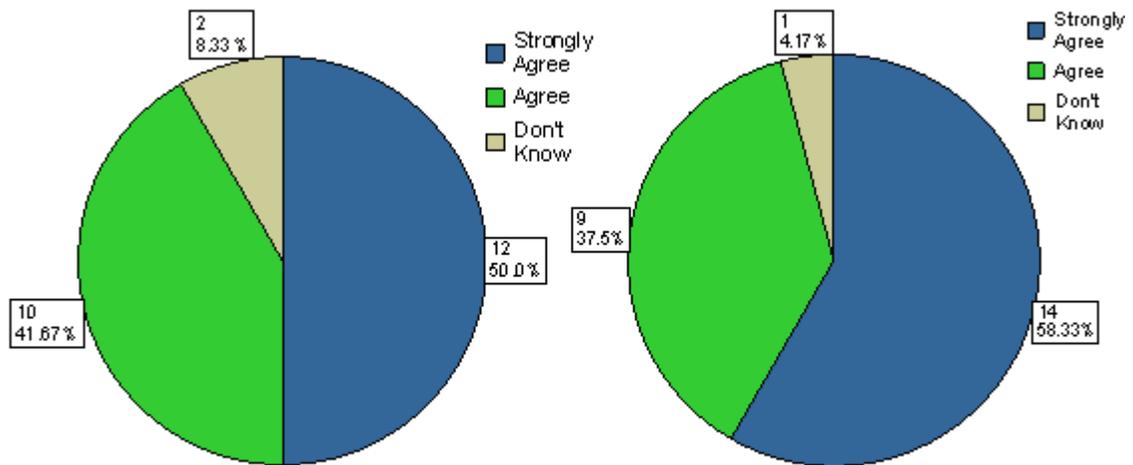


Figure 42 – OPAC users, comfort in library

More responses existence within the ‘Not Sure’ category for non users compared to OPAC users. However, the percentage is not of a value that can be regarded as significant.

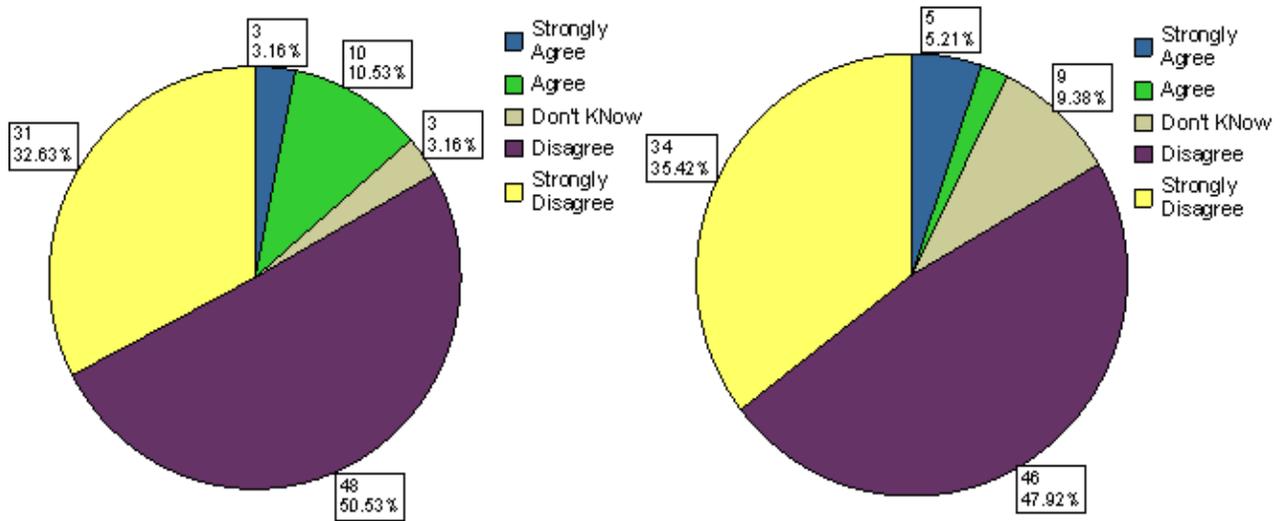
Figure 43 illustrates OPAC users’ responses to the statement: ‘I used the OPAC because I felt comfortable using it’. Figure 44 illustrates OPAC users’ responses to the statement: ‘I Used the OPAC because I felt confident in my ability to use it’.



**Figure 4.1.43 – OPAC users’ comfort using OPAC    Figure 44 – OPAC users’ confidence in ability to use**

Of those respondents from the sample who used the OPAC, the majority claimed that they felt both very comfortable using the OPAC and confident in their ability to use it. There were no occasions of the statements being ‘disagreed’ or ‘strongly disagreed’ with and only a small percentage answered that they ‘didn’t know’. This allows the conclusion to be drawn that OPAC users have a tendency to feel comfortable using the OPAC.

However, when trying to understand how non users of the OPAC felt about using it, the results are much more widely dispersed. Figure 45 illustrates non users’ responses to the statement: ‘I did not use the OPAC because I feel nervous about using it’. Figure 46 illustrates non users’ responses to the statement: ‘I did not use the OPAC because I feel afraid to use it’.



**Figure 45 – Non users’ nervousness.**

**Figure 46 – Non users’ fear.**

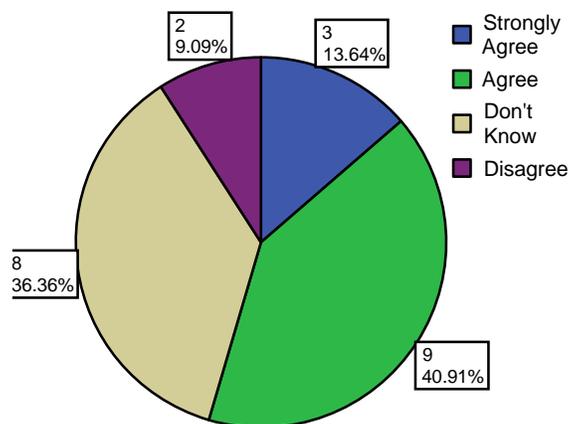
The results suggest that only a very small percentage of non users feel afraid or nervous about using the OPAC. The majority tend to ‘disagree’ or ‘strongly disagree’ with the idea that they are afraid of using or nervous about using the OPAC. Consequently, it seems that although people only use the OPAC when they feel comfortable using it, people who did not use the OPAC are not necessarily afraid of nervous about using it.

These two statements were cross tabulated with age to try and establish whether this had any influence on the response categories selected. Although the Pearson Chi-Square test was unable to confirm a relationship because of the low responses in some categories, it seemed obvious from observation that no significant relationships were present. Subsequently, emotional variables are not considered to influence the public's use of OPACs.

#### 4.1.4.1.6 Social/Interpersonal Variables

The data analysed in this section focuses on social/interpersonal variables. It attempts to establish whether these factors have influenced the public's use of OPACs.

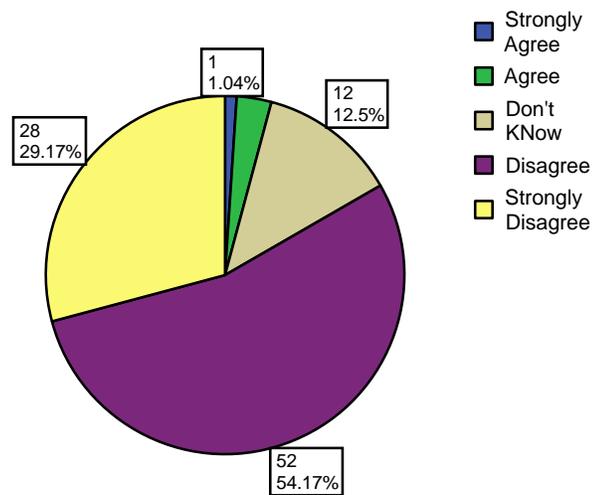
The pie chart in figure 47 illustrates OPAC users' responses to the statement: 'I used the OPAC because I knew library staff would be willing to help me'.



**Figure 47 – Knew staff were willing to help. OPAC Users**

Only OPAC users were permitted to respond to this statement. Many users agreed that they used the OPAC because they felt that library staff would be willing to help them. However, the second largest response for this question came from the 'don't know' category, indicating that many users had a tendency to be unaware of whether library staff would be willing to help them or not.

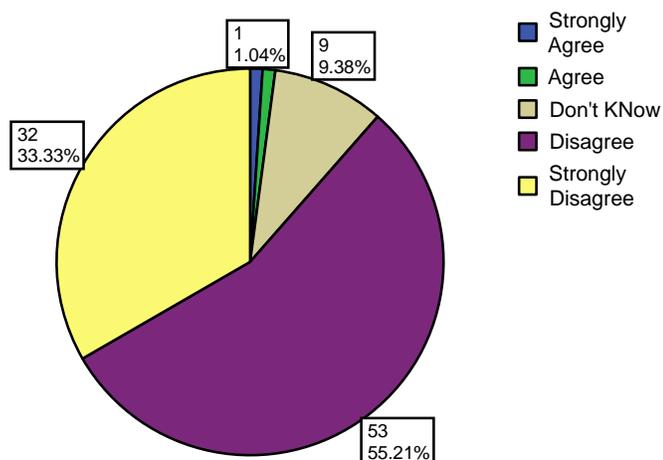
These results can be compared to the responses from non users for the two statements represented by figure 48: ‘I did not use the OPAC because I felt that library staff would be too busy to help me’ and figure 49: I did not use the OPAC because I felt library staff would not want to help me



**Figure 48 - Felt staff were too busy to help – Non users<sup>1</sup>**

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<sup>1</sup> In the ‘Agree’ category the count was 3 and the percentage was 3.12%.



**Figure 49 - Felt library staff would not want to help – Non users<sup>2</sup>**

The results here reveal that over half of non OPAC users disagree that library staff would be too busy to help them use the OPAC. Likewise, non users also have a similar tendency to disagree with the idea that staff would not want to help them use the OPAC. This indicates that attitudes towards interacting with library staff do not influence OPAC use.

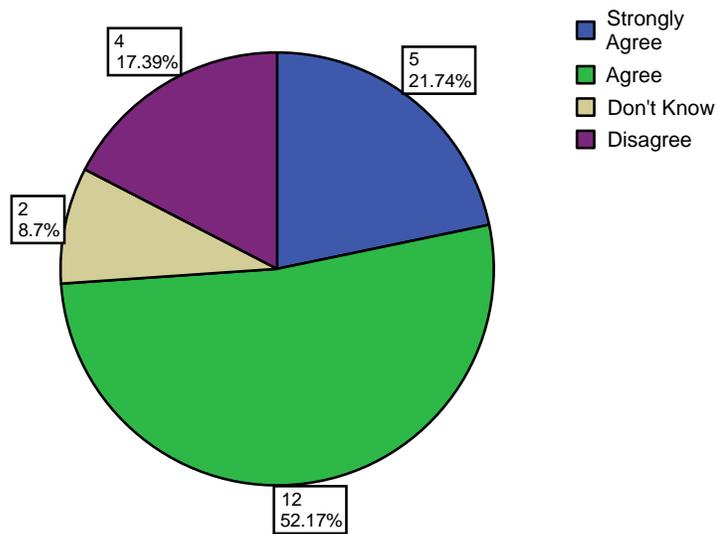
#### 4.1.4.1.7 Economic Variables

‘The economic issues related to information seeking behaviour fall into two categories: direct economic cost and the value of time.’ (Wilson:1996: 559)

Because there are no direct financial costs involved in using the OPAC, questions that sought to establish if economic factors influence OPAC use relate directly to time.

The pie chart in figure 50 illustrates OPAC users’ responses to the statement: ‘I used the OPAC because I had enough time to use it’.

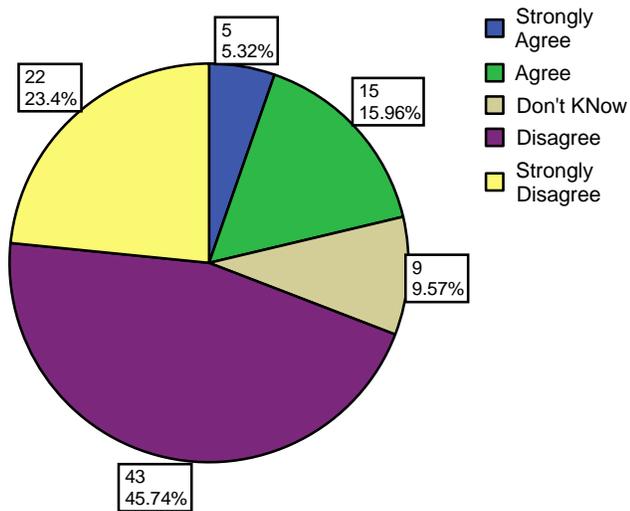
<sup>2</sup> In the ‘Agree’ category the count was 1 and the percentage was 1.04%



**Figure 50 – Had time to use the OPAC – Non users**

This statement was responded to by OPAC users only. Clearly, most OPAC users had a tendency to ‘agree’ with this statement, indicating that time was a factor that influenced their use of the OPAC. However, the responses to this statement can be contrast with a similar statement put to non users:

The pie chart in figure 51 illustrates non OPAC users’ responses to the statement: ‘I did not use the OPAC because I did not have enough time to use it’.



**Figure 51 –Did not have time to use the OPAC – Non users**

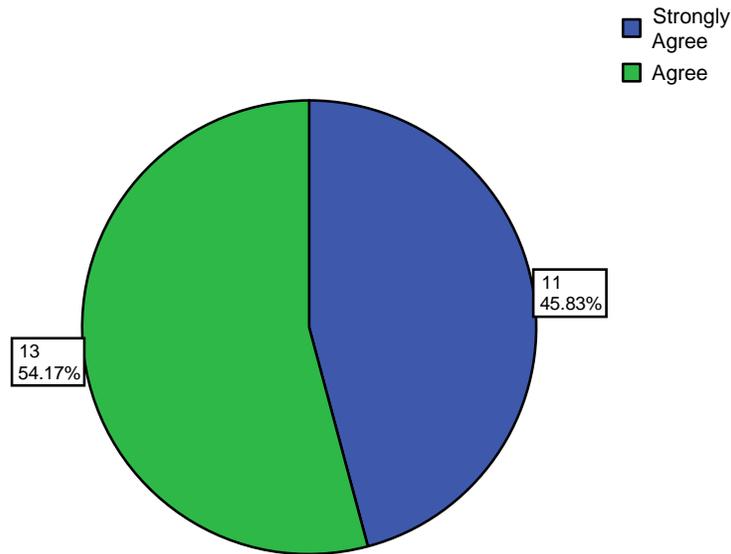
The responses given to this statement reveal that non users have a tendency to disagree with the statement, indicating that time is not a factor which most non users believe influences their use of the OPAC. Consequently, it seems that while those who use the OPAC require enough time to use it, those who refrain from using it do not necessarily lack the time too.

#### 4.1.4.1.8 Source Characteristics

##### Access

The questions in this section consider how accessible the OPAC is as an information source and attempt to ascertain whether this proves to be a factor influences the public's use of the OPAC.

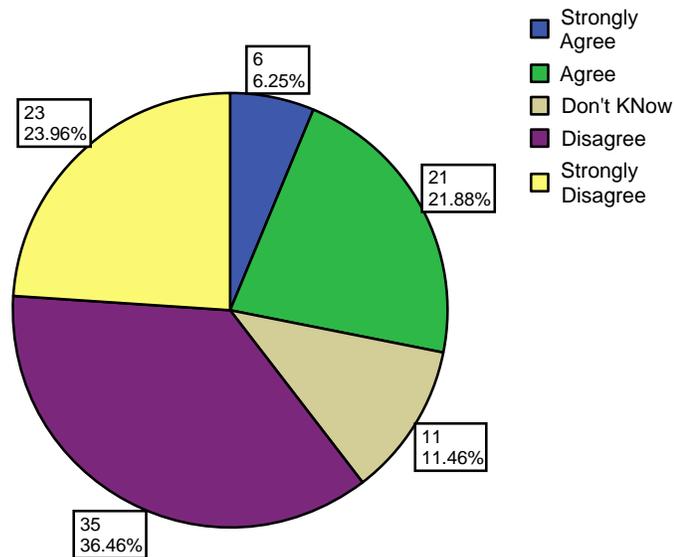
The pie chart in figure 52 illustrates OPAC users' responses to the statement: 'I used the OPAC because I know exactly where it is positioned in the library'



**Figure 52 – Knew where the OPAC was positioned – OPAC users**

Of the OPAC users who responded to this statement, all either 'agreed' or 'strongly agreed' with it. However, knowing where the OPAC is situated in the library is another prerequisite of using it. Consequently it is not surprising that the OPAC users responded in this way.

A broad range of responses resulted from the responses of non users to a similar statement: 'I did not use the OPAC because I do not know where it is situated in the library.' The responses to this statement are represented in figure 53.



**Figure 53 – Unaware of the OPACs location – Non users**

Although a fairly large percentage of non users agreed with this statement, there was a stronger tendency to either 'disagree' or 'strongly disagree' with it, indicating that most non users are aware of the location of the OPAC in the library. Consequently, being unaware of where the OPAC is located does not account for the majority of respondent's non use of the OPAC.

### Credibility

The questions here attempted to reveal if credibility was a factor that influences the public's use of the OPAC however, rather than looking at only the perceived credibility of the OPAC, the questions take into account the perceived credibility of other sources as these too may influence OPAC use.

Figure 54 illustrates the total sample's responses to the question: 'If you asked a librarian for assistance how successful was this?'

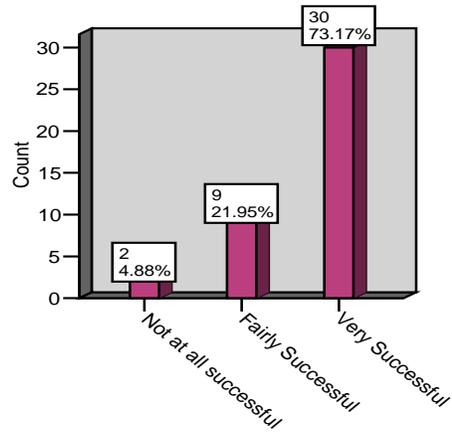


Figure 54 – Success of asking a librarian – Total sample

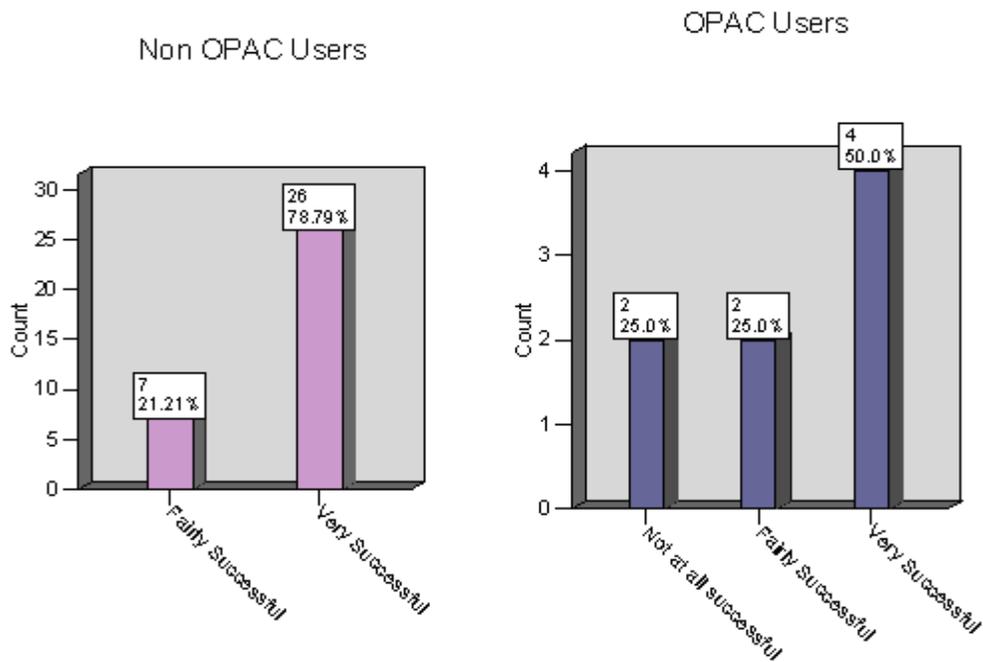


Figure 55 – Success of asking a librarian  
librarian - OPAC users.

–Figure 56 – Success of asking a  
– Non users

Figure 57 illustrates the total sample's responses to the question: 'If you browsed the shelves how successful was this?'

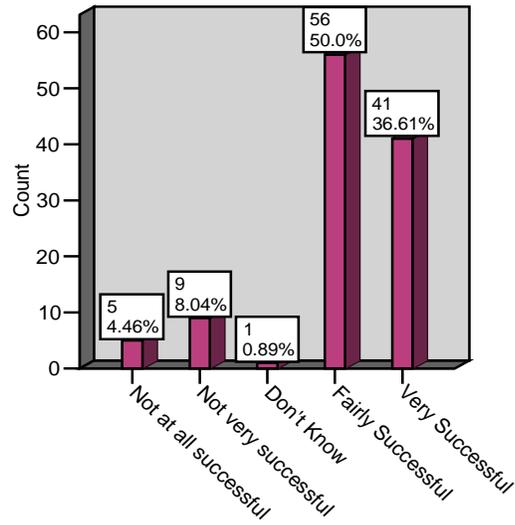


Figure 57 – Success when browsing the shelves – Total sample

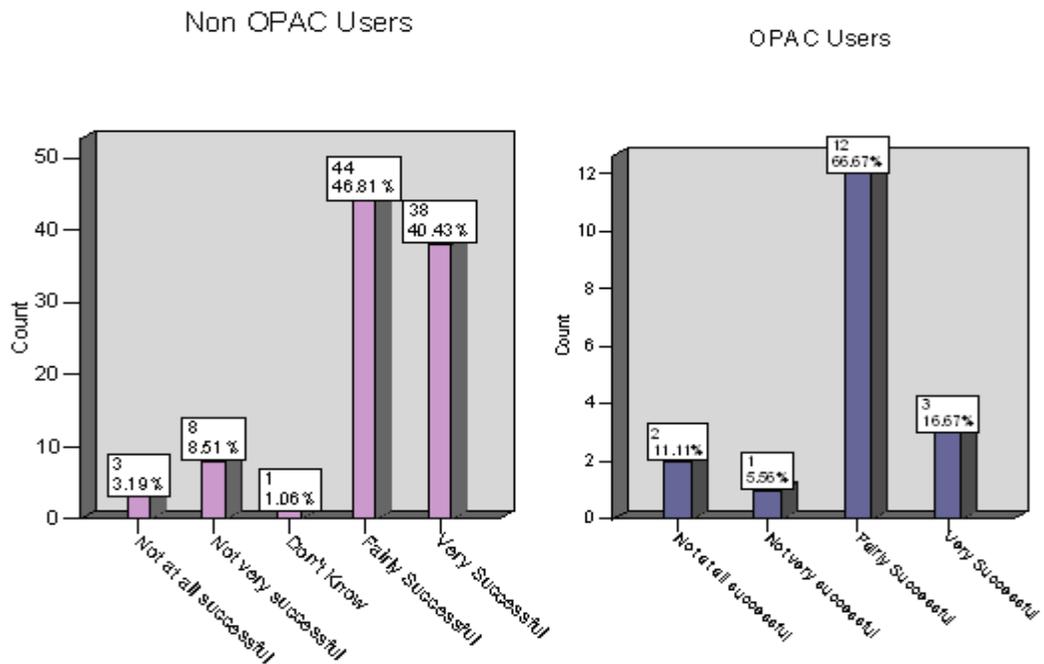
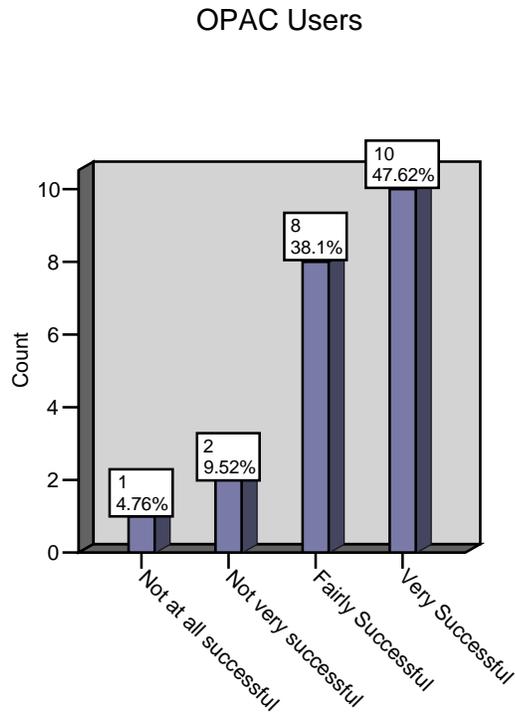


Figure 58 – Success when browsing – Non users Figure 59 – Success when browsing – OPAC users

The respondents were only able to answer these questions if they had used that particular source of information in the library that day. It appears that those who asked a librarian considered the action to be either 'very successful' or 'fairly successful' – these being the highest two categories on the scale. Similarly browsing the shelves also had a greater tendency to be perceived within these two categories.

When the results for these two questions are split into results from users and non users some slight but interesting differences emerge. 25.0% of OPAC users actually considered asking a librarian to be 'Not at all successful' compared with 0.0% of non users. The percentage of OPAC users who were unsatisfied with browsing the shelves was also much higher.

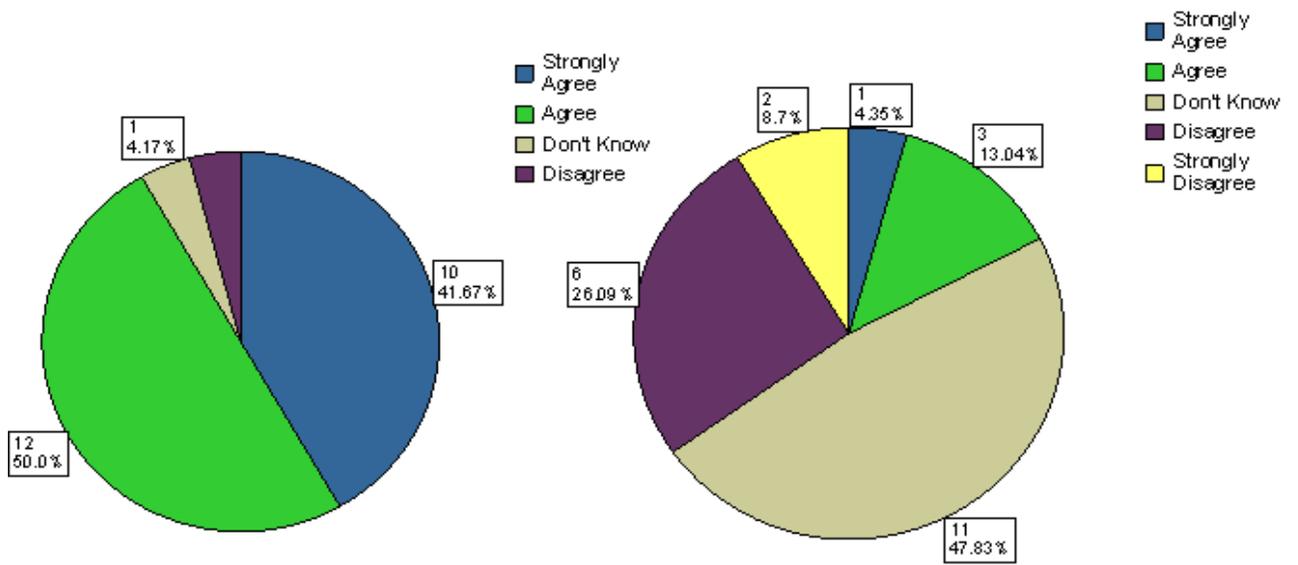
Figure 60 illustrates OPAC users' responses to the question: 'If you searched the OPAC, how successful was this?'



**Figure 60 – Success using the OPAC**

This question could only be answered by those respondents who had used the OPAC on the day they completed the questionnaire. Consequently, no non users answered this question, preventing any complete understanding of whether this was a factor that influenced non users' disuse of the OPAC. However, the results do indicate that of those people who did use the OPAC, there was a tendency to consider it a 'very successful' source.

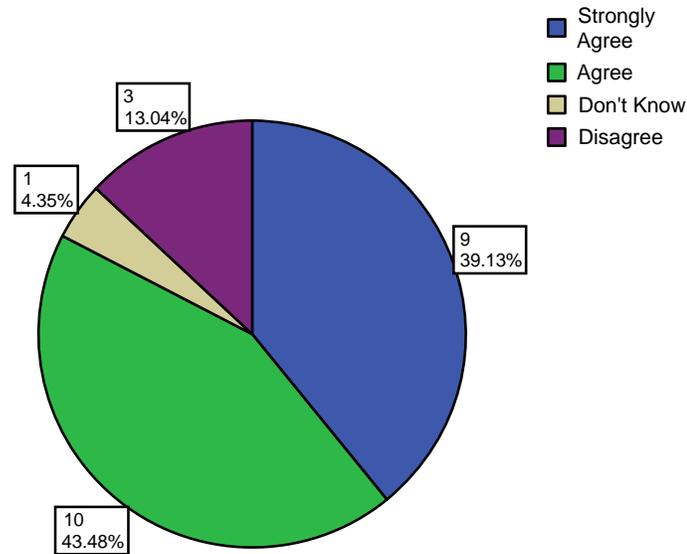
Responses to the following statements function to corroborate the ideas formulated from these results. Figure 61 illustrates OPAC users' responses to the statement: 'I used the OPAC because I generally find the information I need when I use it'. Figure 62 illustrates OPAC users' responses to the statement 'Searching the OPAC is more accurate than asking library staff for assistance.'



**Figure 61 – Usually find information on OPAC**

**Figure 62 – Searching the OPAC is more accurate than asking library staff – OPAC users**

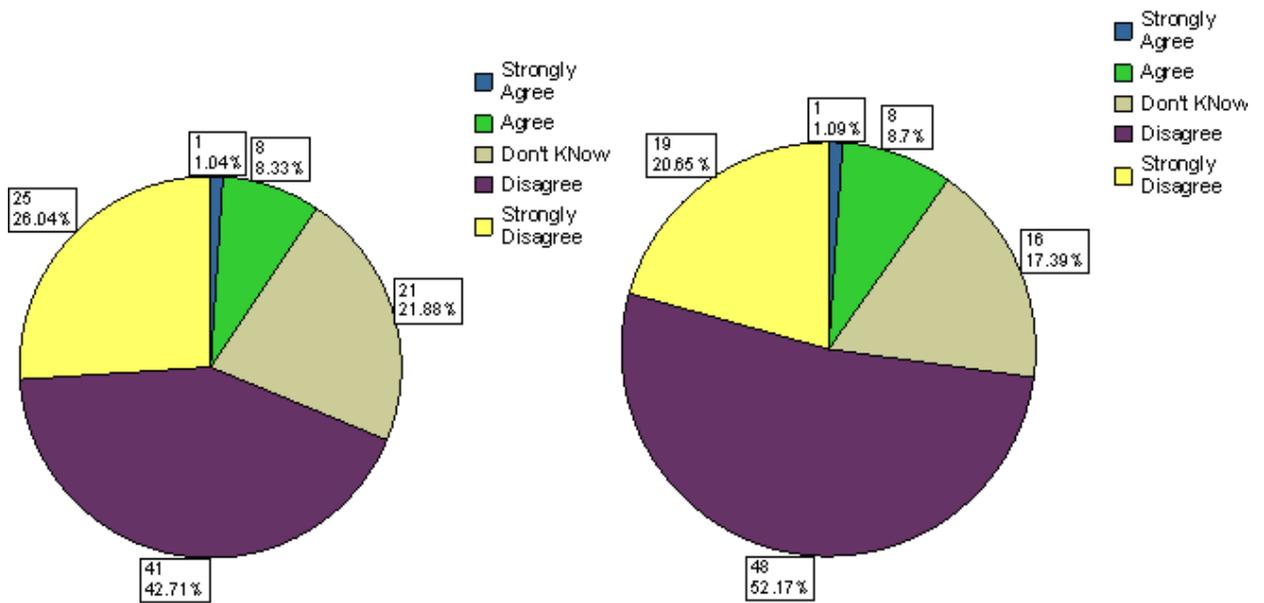
Figure 63 illustrates OPAC users' responses to the statement 'Searching the OPAC is more accurate than browsing the shelves'.



**Figure 63 – OPAC is more accurate than browsing**

Only OPAC users were permitted to respond to these statements. Responses reveal that OPAC users have a tendency to consider the OPAC a reliable source. Additionally, OPAC users tended to indicate that they 'didn't know' whether searching the OPAC was more accurate than asking a librarian, which is understandable as most OPAC users did not ask for the assistance of a librarian in their search. Finally, OPAC users tended to consider searching the OPAC a much more accurate source than browsing the shelves.

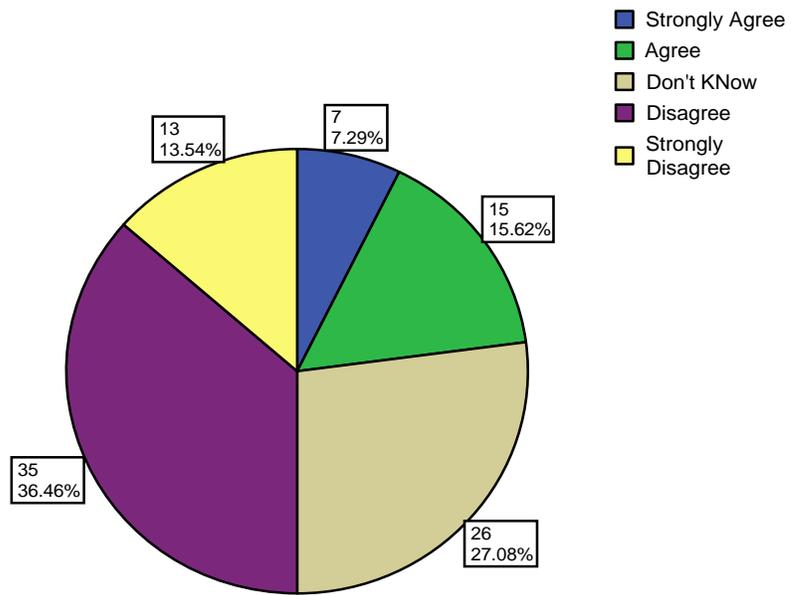
The responses of non OPAC users to similar statements can be compared to these findings. Figure 64 illustrates non OPAC users' responses to the statement: 'I did not use the OPAC because I do not generally find what I am looking for when I use it.' Figure 65 illustrates non OPAC users' responses to the statement: 'I did not use the OPAC because I have tried to use it before but was not successful.'



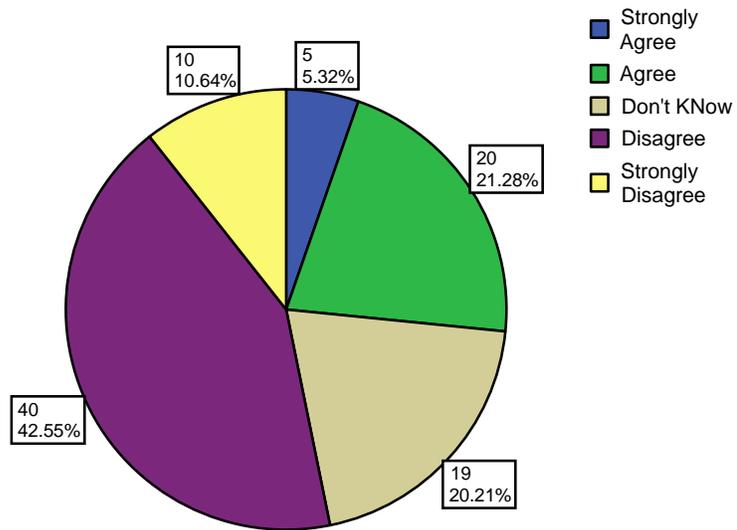
**Figure 64 – Do not find items needed when using the OPAC – Non users**

**Figure 65 – Tried to use the OPAC before but was unsuccessful – Non users**

Figure 66 illustrates non OPAC users' responses to the statement: 'I believe browsing the shelves is more accurate than searching the OPAC.' And figure 67 illustrate non users' responses to the statement: 'I believe asking library staff is more accurate than using the OPAC.'



**Figure 66 – Browsing the shelves is more accurate than using the OPAC – Non users**



**Figure 67 – Asking library staff is more accurate than using the OPAC – Non users**

These responses reveal that non OPAC users had a tendency to ‘strongly disagree’ or ‘disagree’ with each of the statements, suggesting that though they did not use the OPAC, they did not question its credibility. Consequently credibility cannot be regarded as a factor that influences non users in their use of the OPAC. However, the failing credibility of the other sources (browsing the shelves and asking a librarian) may have influenced OPAC users to use the OPAC.

Channel:

The table in figure 68 illustrates the responses to the question: ‘If you took more than one action in the library today, please indicate which action you took first?’

	% of responses from non users	% of responses from users
Browsed Shelves	<b>N<sup>3</sup>85 = 85.0%</b>	<b>N9 = 40.91%</b>
Asked a Librarian	<b>N15 = 15.0%</b>	<b>N1 = 4.55%</b>
Searched OPAC	<b>N0 = 0.0%</b>	<b>N2 = 54.55%</b>

**Figure 68 - First action taken in the library – OPAC users and non users**

The responses to this question can be used to indicate which channel of sourcing information was the most popular first choice for OPAC users and non users. From the total sample it is apparent that browsing the shelves was the most popular first action. However, when the responses from just OPAC users are analysed it is apparent that searching the OPAC resulted in the most frequently indicated response.

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<sup>3</sup> N indicates the response frequency for each of the categories.

The table in figure 69 illustrates the responses to the question: ‘If you took more than one action in the library today, please indicate which action you took second?’

	% of responses from non users	% of responses from users
Browsed Shelves	<b>N5 = 22.73%</b>	<b>N7 = 41.18%</b>
Asked a Librarian	<b>N17 = 77.27%</b>	<b>N2 = 11.76%</b>
Searched OPAC	<b>N0 = 0.0%</b>	<b>N8 = 47.06%</b>

**Figure 69 - Second action taken in the library – OPAC users and non users**

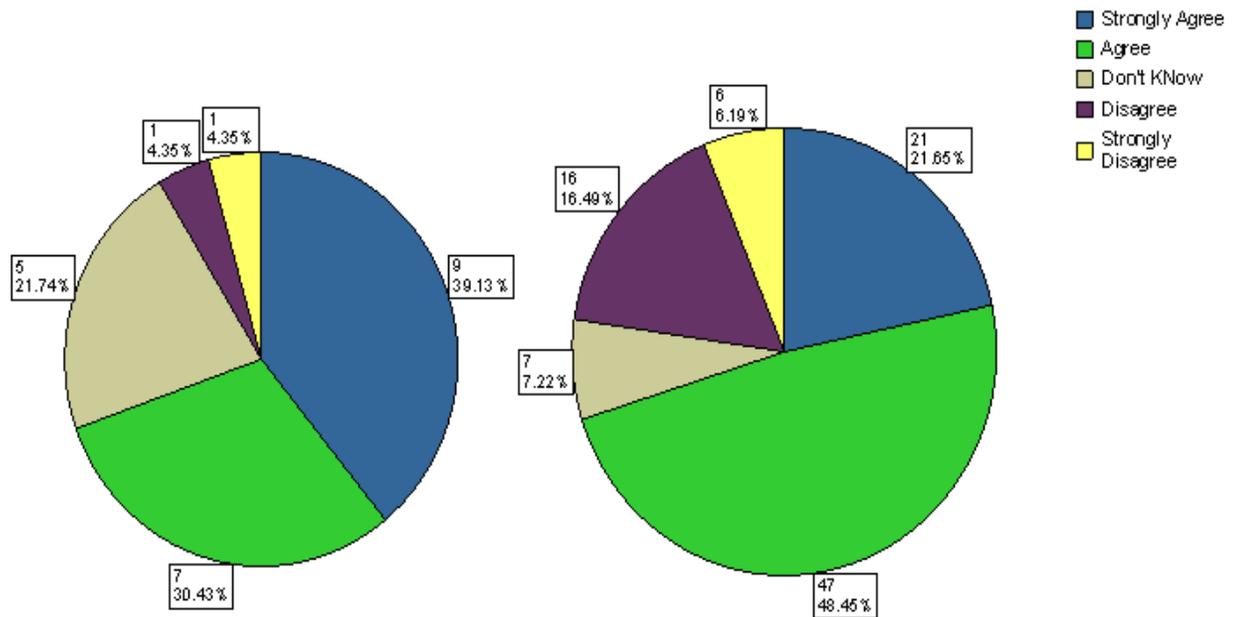
As a second choice, users maintained their tendency to select the OPAC, whereas non users tended to prefer the assistance of a librarian. Only as a third choice do OPAC users tend to ask a librarian for assistance – see figure 70, representing responses to the question: ‘If you took more than one action in the library today, please indicate which action you took third?’

	% of responses from non users	% of responses from users
Browsed Shelves	<b>N0 = 0.0%</b>	<b>N2 = 28.57%</b>
Asked a Librarian	<b>N0 = 0.0%</b>	<b>N3 = 48.86%</b>
Searched OPAC	<b>N0 = 0.0%</b>	<b>N2 = 28.57%</b>

**Figure 70 -: Third action taken in the library – OPAC users and non users**

It seems that OPAC users prefer to search the OPAC and non users prefer to browse the shelves. This finding is supported by the responses to the following statements below. Figure 71 illustrates OPAC users’ responses to the statement: ‘I

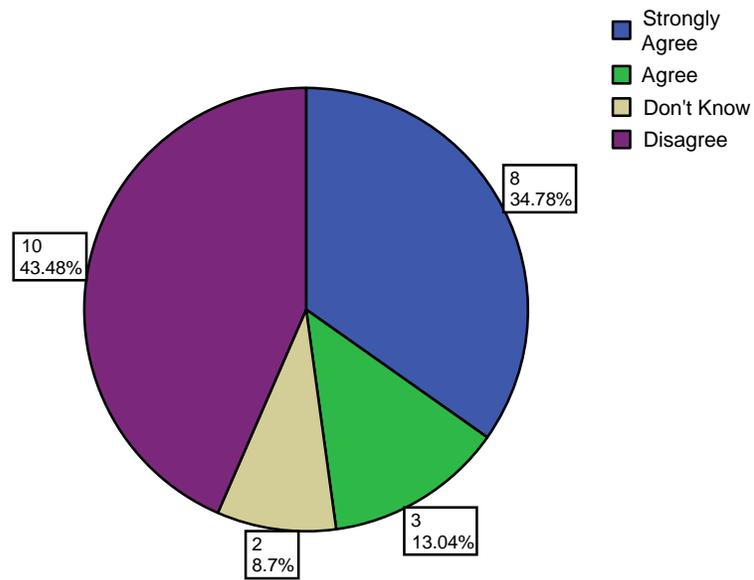
prefer to use the OPAC than to ask for the assistance of library staff. Figure 72 illustrate non users' responses to the statement: 'I did not use the OPAC because I prefer to browse the shelves.'



**Figure 71 – Prefer the OPAC to asking library assistants – OPAC users**

**Figure 72 – Prefer to browse the shelves than use the OPAC – Non users**

However, the findings from these responses are contradicted by OPAC users' responses to the following statement: 'I prefer to use the OPAC rather than just browsing the shelves.' Figure 73 represents these responses.



**Figure 73 – Prefer the OPAC to browsing the shelves – OPAC users**

The data in response to this question is dispersed quite widely. This suggests that OPAC users would not necessarily prefer to search using the OPAC; many believe browsing the shelf is preferable to searching the OPAC.

#### 4.1.5 Information Need

The data analysed in this section focuses on both information need and type of information needed. It attempts to establish whether these factors have influenced the public's use of OPACs.

The table in figure 74 illustrates the responses to the question: 'Please indicate why you need this information'.

	% of respondents from total sample	% Non OPAC Users	% OPAC Users
Other	<b>N22 = 17.5%</b>	<b>N18 = 17.6%</b>	<b>N4 = 16.7%</b>
Travel	<b>N4 = 3.2%</b>	<b>N3 = 2.9%</b>	<b>N1 = 4.2%</b>
Entertainment	<b>N8 = 6.3%</b>	<b>N7 = 6.9%</b>	<b>N1 = 4.2%</b>
Intellectual Fulfilment	<b>N52 = 41.3%</b>	<b>N38 = 37.3%</b>	<b>N14 = 58.3%</b>
Emotional Fulfilment	<b>N22 = 17.5%</b>	<b>N21 = 20.6%</b>	<b>N1 = 4.2%</b>
Escapism	<b>N33 = 26.2%</b>	<b>N30 = 29.4%</b>	<b>N3 = 12.5%</b>

**Figure 74 – Showing the responses from the total sample and the separate responses of OPAC users and non users.**

This question was asked in order to ascertain whether information need influenced the public's use of OPACs. The responses taken from the total sample reveal that 'intellectual fulfilment' was the most frequently indicated response. However, when those results are separated into responses from OPAC users and those from non users it is clear that the dispersion of the data varies. The mode average does remain as intellectual fulfilment for both OPAC users and non users. However, 58.3% of users selected this response compared with 37.3% of non users. It is also interesting to note that a much higher percentage of non users 29.4%, suggested that they needed information for escapism compared with only 12.5% of OPAC users.

Because this question allowed for multiple responses from a single respondent, the Pearson Chi-Square test has to be conducted on each category separately. When performing the test on the 'intellectual fulfilment' category where the null hypothesis (H0) equals: there is no relationship between OPAC use and the need for intellectual fulfilment, and the alternative hypothesis (H1) equals: there is a relationship between OPAC use and the need for intellectual fulfilment, the test allows H1 to be accepted when the level of significance is set to 90% (0.1). In this instance a significance value of 0.059 is given with 1 degree of freedom.

When performing the test on the 'escapism' category, H0 equals: there is no relationship between OPAC use and the need for escapism, H1 equals: there is a relationship between OPAC use and the need for escapism. Once again, H1 can be accepted when the level of significance is set to 90% (0.1). A significance value of 0.090 is given with 1 degree of freedom.

In identifying the existence of these relationships, it appears that information need is a factor that influences the public's use of OPACs.

Figure 75 and figure 76 represent the entire sample's responses to the question: 'Was the information you required from the library today fiction or non fiction?'

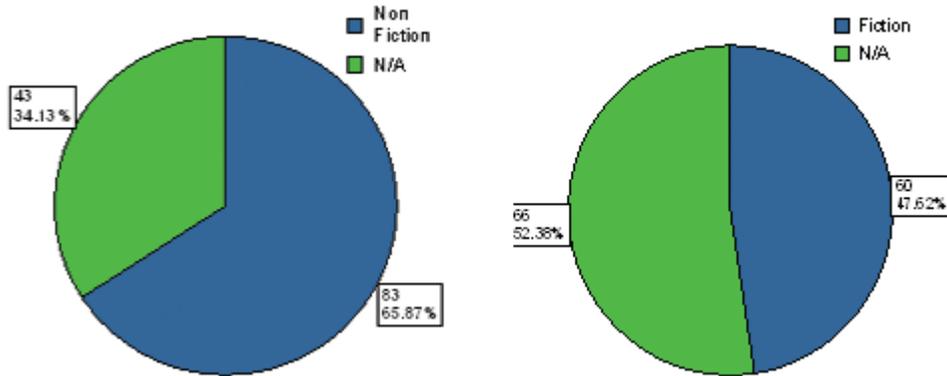


Figure 75 – Non fiction need of total sample Figure 76 –Fiction need of total sample

Figure 77 and figure 78 represent only non users' responses to the question: 'Was the information you required from the library today fiction or non fiction?'

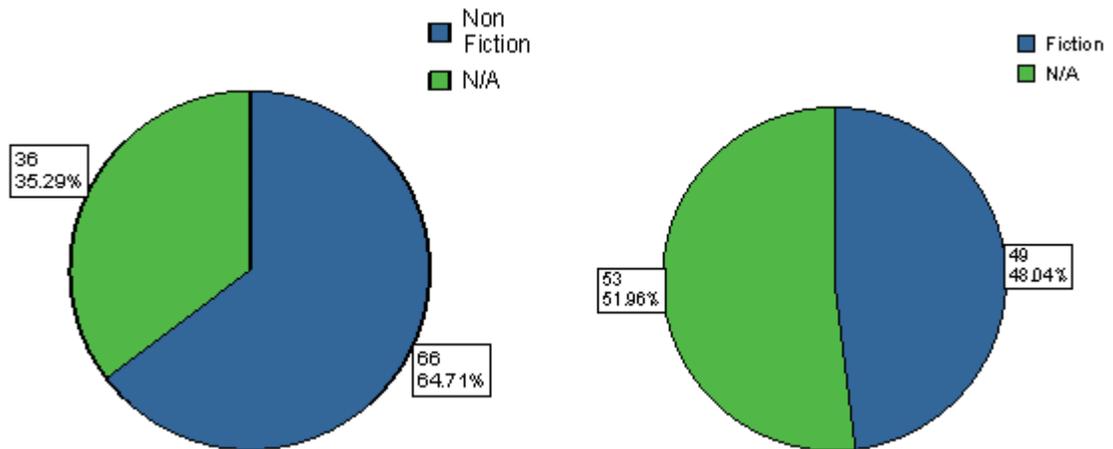


Figure 77 – Non fiction need of non users

Figure 78 – Fiction need of non users.

Figure 79 and figure 80 represent only OPAC users' responses to the question: 'Was the information that you required from the library today fiction or non fiction?'

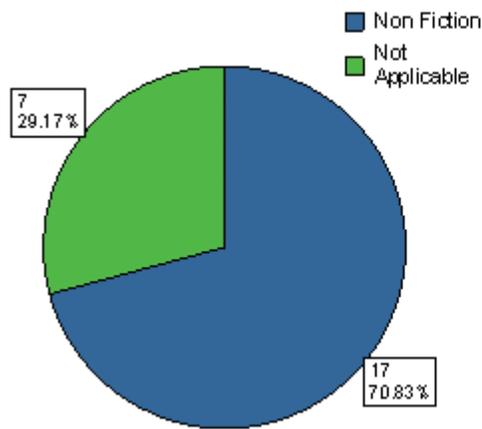


Figure 79 – Non fiction need of OPAC users

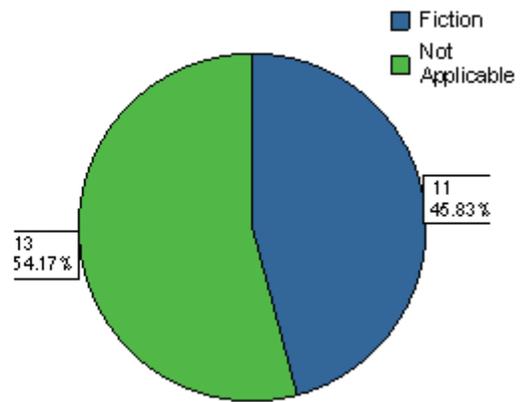


Figure 80 – Fiction need of OPAC users

The pie charts represent the responses to the question 'Was the information you required from the library today fiction or non fiction?' Due to the vast similarities in the patterns of responses, it is apparent that there are no statistically significant differences between OPAC use and the need for fiction. The Pearson Chi-Square test confirms this in the case of both fiction and non fiction need:

**Non fiction** - Where H0 equals: there is not a relationship between the need for non fiction and OPAC use and H1 equals: there is a relationship between the need for non fiction and OPAC use, even when the level of significance is set a 90% (0.1) the test suggests that only the null hypothesis must be accepted. The significance value given is 0.569 with 1 degree of freedom.

**Fiction** – Where H0 equals: there is not a relationship between the need for fiction and OPAC use and H1 equals: there is a relationship between the need for fiction and OPAC use, again even when the level of significance is set at 90% (0.1) H0 must be accepted. The significance value given is 0.846 with 1 degree of freedom.

Consequently, the need for non fiction can not be considered a factor that influences the public's use of OPACs.

The final question in this section allows an interesting observation to be made concerning the type of information required by OPAC users and non users. Figure 81 illustrates the responses to the question: ‘Please give further details about the item you required from the library?’

	% of respondents from total sample	% Non OPAC Users	% OPAC Users
Other	<b>N6 = 4.8%</b>	<b>N4 = 3.9%</b>	<b>N0 = 0.0%</b>
Talking Book	<b>N4 = 3.2%</b>	<b>N4 = 3.9%</b>	<b>N0 = 0.0%</b>
Map	<b>N5 = 4.0%</b>	<b>N5 = 4.9%</b>	<b>N0 = 0.0%</b>
CD	<b>N7 = 5.6%</b>	<b>N= 6.9%</b>	<b>N0 = 0.0%</b>
Video/DVD	<b>N12 = 9.5%</b>	<b>N10 = 9.8%</b>	<b>N2 = 8.3%</b>
Book	<b>N97 = 77.0%</b>	<b>N77 = 75.5%</b>	<b>N20 = 23.3%</b>
No Response	<b>N6 = 4.8%</b>	<b>N4= 3.9%</b>	<b>N2 = 8.3%</b>

**Figure 81 – Showing the responses from the total sample and the separate responses of users and non users.**

It is clear from the total sample that the vast majority of respondents indicated that they were searching for a book. The other options accumulated considerably lower percentages with none achieving percentages higher than 10%. When the results of OPAC users and non users are split into two separate groups of responses, it is interesting to see that the results for non OPAC users are almost identical to the results of the total sample. There is rarely less than a 1% difference between the results in each category. However, for OPAC users, only the results for books and DVDs correspond with the sample’s total. No other items are sought for at all using the OPAC. This clearly illustrates that people who use the OPAC only ever search for specific types of material.

The Pearson Chi-Square test cannot be used to reliably confirm this observation as there are too many categories in the results with expected frequencies less than 5. Nevertheless, the table in figure 81 does allow a visual comparison to be made. On the basis of this it can be concluded that the type of

information needed is likely to be a factor influencing whether or not library users use the OPAC.

#### 4.1.6 Risk and Reward Theory

The data analysed in this section focuses risk and reward theory. It attempts to establish whether these factors have influenced the public's use of OPACs.

##### *Time*

Figure 82 illustrates the total sample's responses to the question: 'How much time did you spend searching in the library today?'

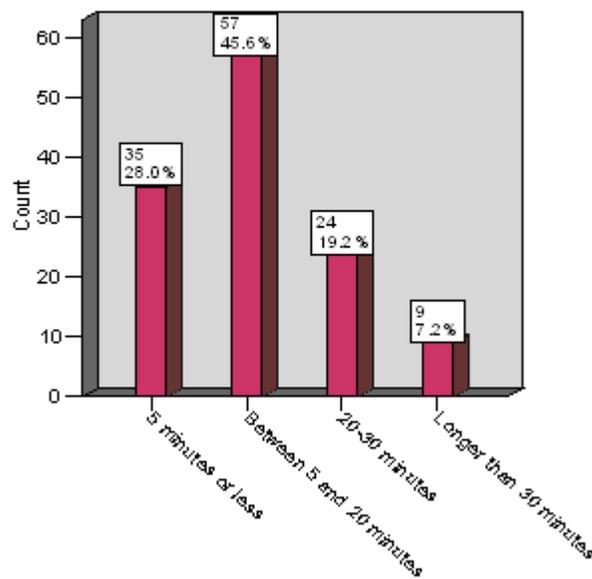


Figure 82 – Time spent in the library – Total sample

Library users responded to this question by indicating the ‘5-20 minutes’ category most frequently. This simply indicates that most library users were not prepared to spend longer than this amount of time either because they had managed to find the information they required or because they were not prepared to risk anymore time fulfilling their information need.

When the responses from OPAC users and non users are separated and compared some differences in the responses do emerge:

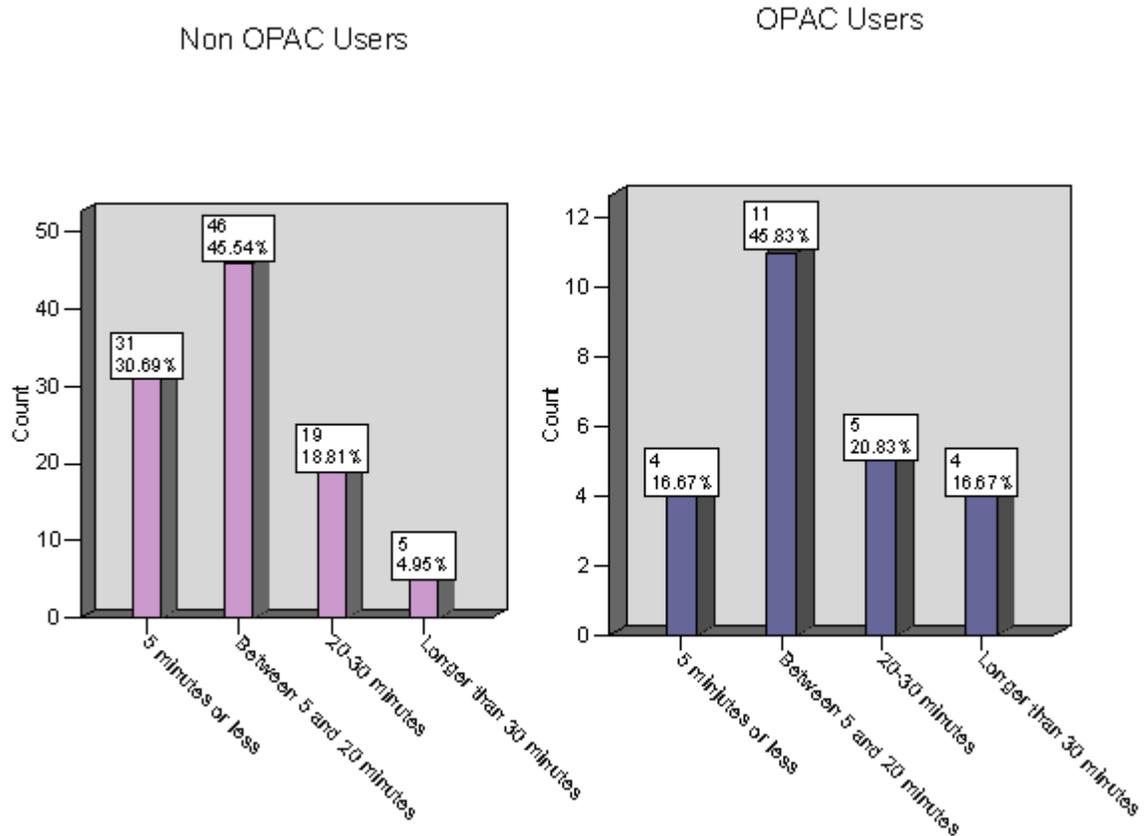


Figure 83 – Time spent in the library – Non users

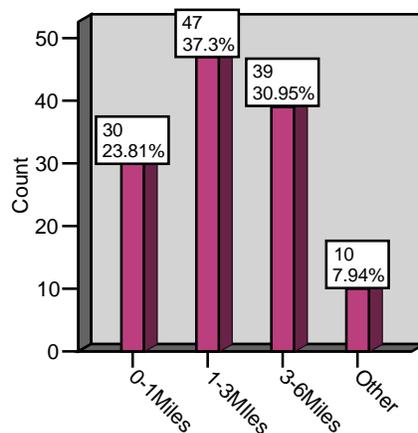
Figure 84 – Time spent in the library - OPAC users

Compared to non OPAC users, OPAC users indicated more frequently that they spent longer than 30 minutes searching in the library. They also responded in the

'5 minutes or less' category less frequently than OPAC users. This may suggest that OPAC users spend longer searching in the library because their search involves using the OPAC at some stage. Consequently, library users who use the OPAC would generally have to be prepared to risk more time in order to find the information that they require from the library. However, the Pearson Chi-Square test is unable to be conducted reliably with regards to this question and so is unable to either confirm or refute the existence of this apparent relationship. Nevertheless, because over half of both OPAC users and non users have selected the 'Between 5 and 20 minutes' category it seems probable that a relationship would not actually be firm enough to suggest overwhelmingly that time risked is a factor that influences OPAC use.

*Distance*

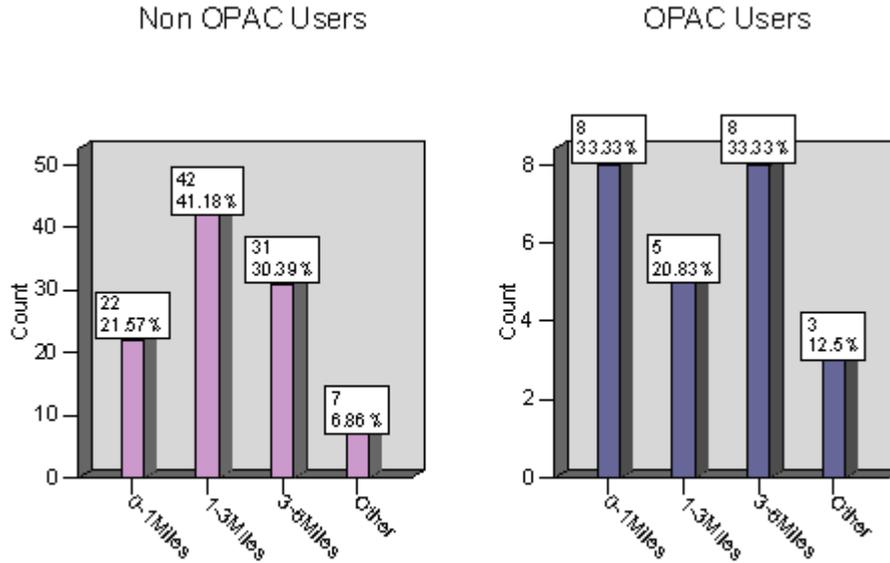
As an element of risk, the distance that people travel to use the library may also be revealing. Figure 85 illustrates the responses from the total sample to the question: 'Approximately how far have you travelled to use the library today?'



**Figure 85 – Distance travelled – Total sample**

From the total sample, respondents had a greater tendency to have travelled between 1 and 3 miles to the library. When viewing the responses of users and non

users separately, it becomes apparent that there are differences in the tendencies of OPAC users and non OPAC users.

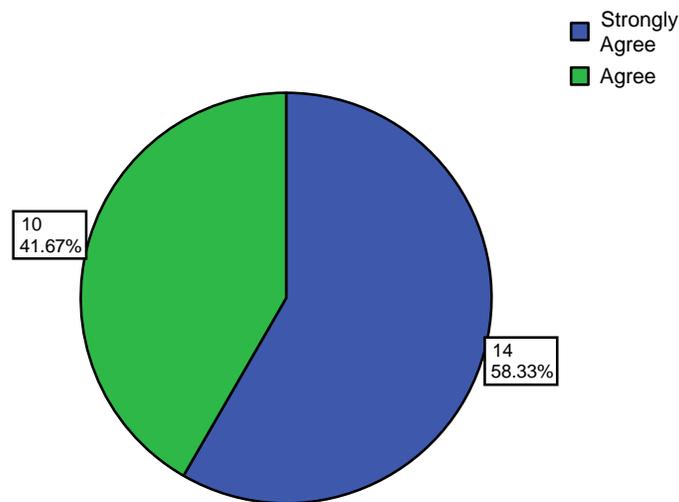


**Figure 86 – Distance travelled – Non users** **Figure 87 – Distance travelled – OPAC users**  
 Whereas 41.18% of OPAC users had travelled 1-3miles, only 20.83% of OPAC users had covered the same distance. Conversely, many more OPAC users, 33.3%, had travelled the shortest distance of 0-1 miles. They had also travelled the longest distance of 3-6 miles more frequently than non users.

However, the Pearson Chi-Square test is unable to confirm a relationship with even 90% certainty. It seems that when library users have risked a greater distance in order to fulfil their information need, use of the OPAC is not necessarily an important part of ensuring that that information need is fulfilled. The test gave a 0.249 significance level and 3 degrees of freedom.

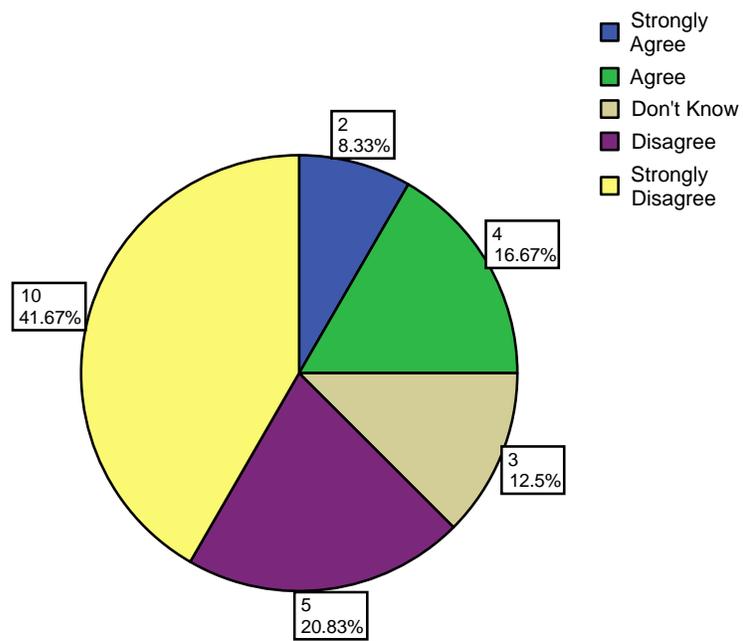
#### 4.1.7 Social Learning Theory (Self Efficacy)

The following section focuses on questions concerning self efficacy. They are revealing concerning efficacy expectations and OPAC use. Figure 88 represents OPAC users' responses to the statement: 'I used the OPAC because I have used it before.'



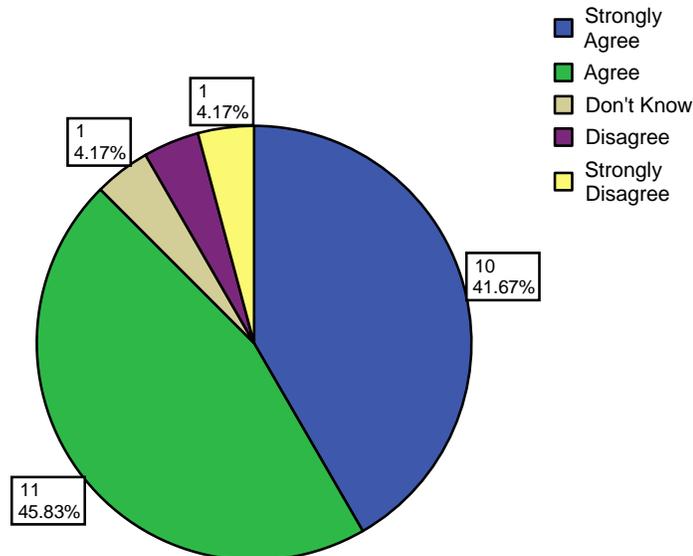
**Figure 88 – Used the OPAC as have used it before – OPAC users**

All OPAC users had used the OPAC before. This indicates that OPAC use is connected to having experience of using the OPAC. However when responding to the statement: 'I used the OPAC because I was shown how to use it by a member of staff' OPAC users had a tendency to either 'strongly disagree' or 'disagree' with the statement, suggesting that when they encountered the OPAC for the first time they had no help from staff members. Responses to this question are illustrated in figure 89.



**Figure 89 – Shown how to use the OPAC by staff – OPAC users**

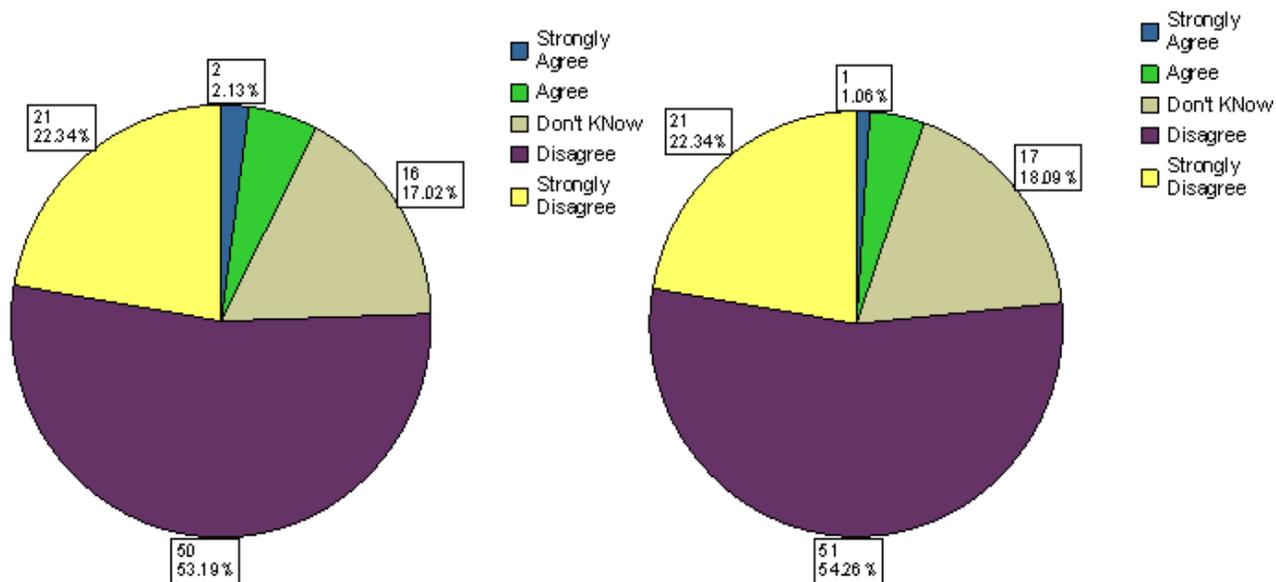
Figure 90 represents OPAC users' responses to the statement: 'I used the OAPC because I find it easy to use'



**Figure 90 – Found the OPAC easy to use – OPAC users**

When asked if they considered the OPAC easy to use, most OAPC users 'agreed' or 'strongly agreed' with the statement. This would indicate that users are confident in their efficacy expectations.

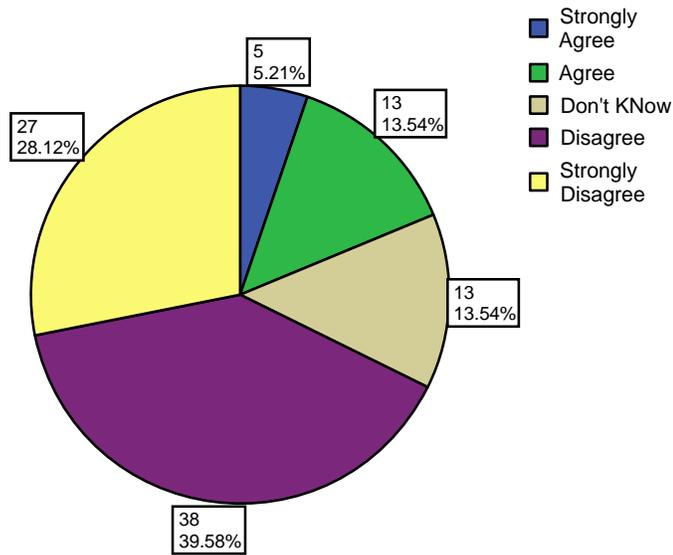
The responses from similar statements put to non users are very similar. Figure 91 represents non users' responses to the statement: 'I did not use the OPAC because I have used it before and find it difficult to use'. Figure 92 represents non users' responses to the statement 'I did not use the OPAC because I have used it before and felt confused'



**Figure 91 – Used the OPAC before and found it difficult to use – Non users**

**Figure 92 – Used the OPAC before and confused – Non users**

The responses to these two questions reveal that non OPAC users do not generally find use of the OPAC confusing or difficult. This suggests that non OPAC users, like OPAC users, have high efficacy expectations concerning use of the OPAC. Support for this finding can be drawn from non users' responses to the statement: 'I did not use the OPAC because I would have liked library staff to help me use it', represented in figure 93, below.



**Figure 93 – Would have liked help – Non users**

Further to this, when the results of: ‘I did not use the OPAC because I would have liked library staff to help me use it’ (see figure 93) and ‘I did not use the OPAC because I have used it before and find it difficult to use’ (figure 91), are cross tabulated, it becomes apparent that even those people who found the OPAC difficult to use do not generally desire the help of library staff to help them use it.

Likewise, when the result of: ‘I did not use the OPAC because I would have liked library staff to help me use it’ (see figure 93) and ‘I did not use the OPAC because I have used it before but felt confused’ (see figure 92), are cross tabulated, a similar idea emerges: Library users who felt confused whilst using the OPAC tended to state that they did not desire the help of library staff to assist them with use of the OPAC.

The idea of self efficacy can also be related to risk and reward theory. The question can be asked: Are people prepared to risk their efficacy expectations of the OPAC if they perceive their information need to be great enough?

In order to explore this idea, the question ‘I used the OPAC because I find it easy to use’ (see figure 90) was cross tabulated with ‘Please indicate how important you considered your information need to be’(see figure 94). The majority of OPAC users who responded to these questions indicated that they felt the OPAC was easy to use regardless of the importance of their information need. However, two OPAC users indicated that they found the OPAC difficult to use. In these instances, the respondents rated their information need as ‘important’. It is not possible to make any accurate generalisations about OPAC use on the actions of two respondents however, this finding is indicative of the possibility that library users may risk their efficacy expectations and use the OPAC if their information need is important enough to them.

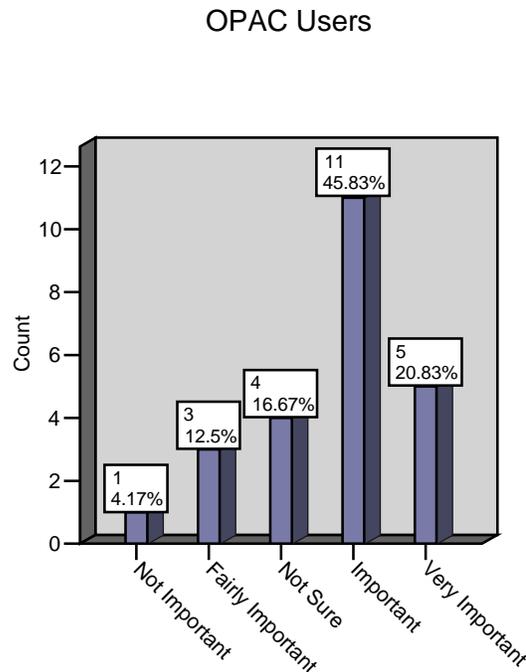
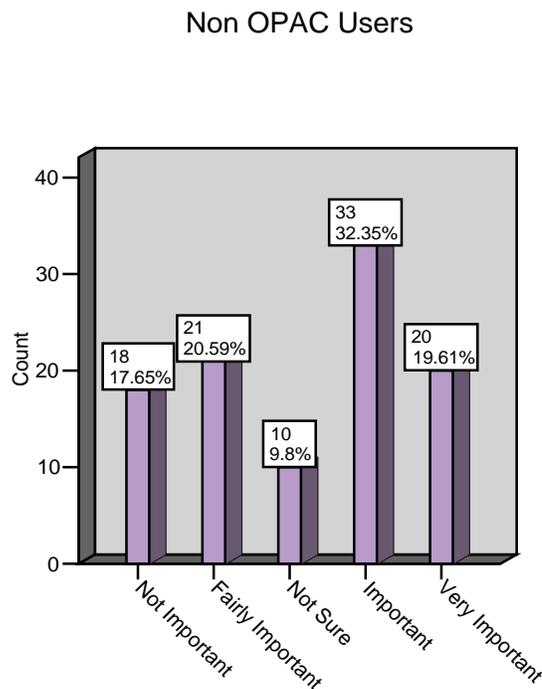


Figure 94 – Importance of information need - OPAC users

However the findings from the previous set of questions can be disputed when the cross tabulated responses of two questions put to non users are considered: ‘I did not use the OPAC because I have used it before and find it difficult to use’ (see figure 91) cross tabulated with ‘Please indicate how important you considered your information need to be’ (see figure 95). Even in instances where non users had previously found the OPAC difficult to use and had either a ‘very important’ or ‘important’ information need, the OPAC was still not incorporated into their search. Consequently non OPAC users can be regarded as unwilling to want to risk their efficacy expectations even when their information need was considered important. Further to this many of the non OPAC users who responded to this question did not find the OPAC difficult to use. Even when their information need was regarded as ‘important’ or ‘very important’ they still did not desire to use the OPAC.

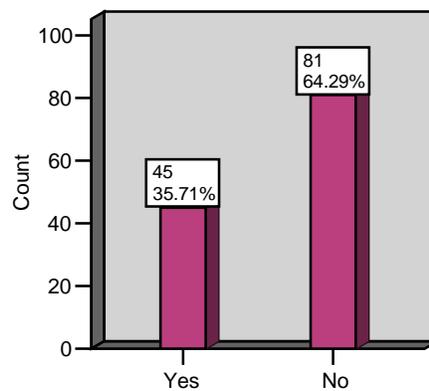


**Figure 95 - Importance of information need – Non users**

The data analysed in this section suggests that self efficacy is not a factor that influences the public's use of OPACs.

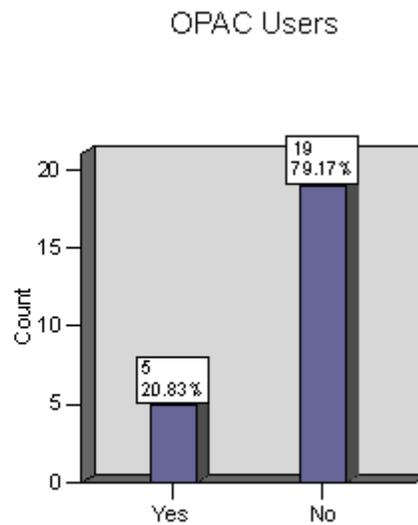
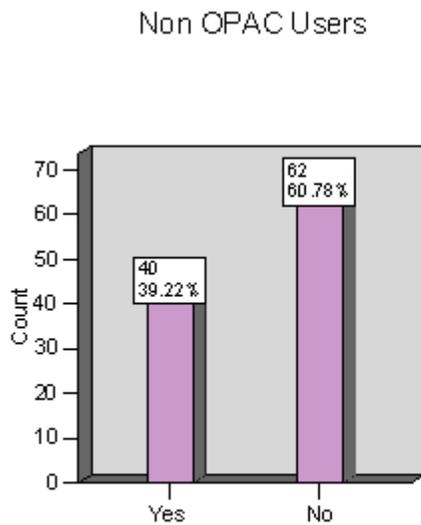
#### 4.1.8 Information Seeking Behaviour – Types of Search

The questions in this section endeavour to establish whether ongoing search as a type of search behaviour, influences the public's use of OPACs. Figure 96 illustrates the total sample's responses to the question: 'Was this the first time that you searched for your required item in the library?'



**Figure 96 – Searched for the information for the first time in the library – Total Sample**

The majority of OPAC users indicated that their search in the library was not the first time that they had ever searched for the information they required. This suggests that most library users were involved in an ongoing search activity. When the responses of OPAC users and non users are considered separately, it becomes apparent that a higher percentage of OPAC users were involved in an ongoing search compared with non users.

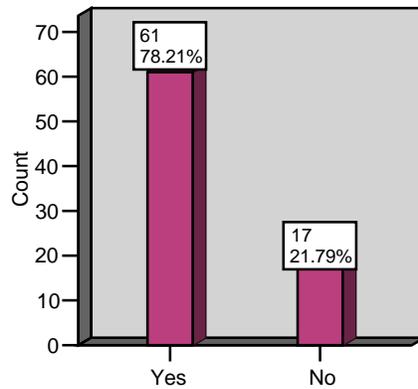


**Figure 97 - Searched for the information for the first time in the library – Non users**

**Figure 98 –Searched for the information the first time in the library – OPAC users**

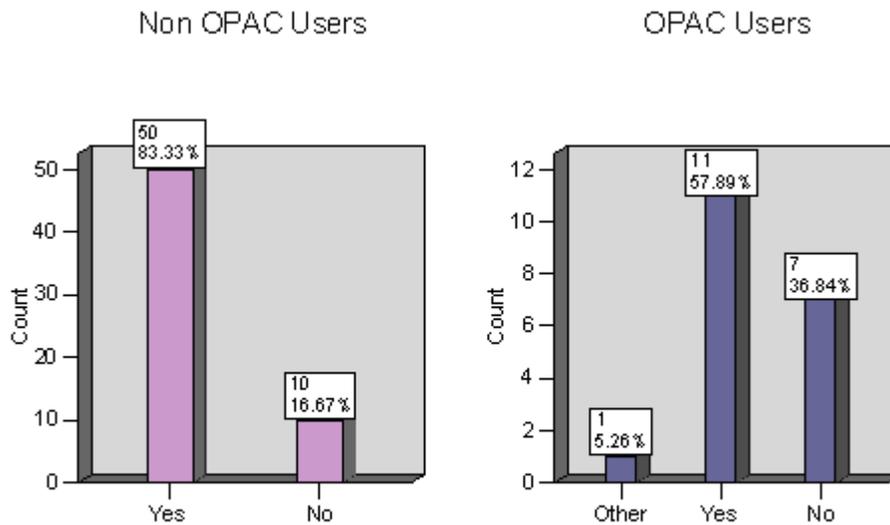
The Pearson Chi-Square test confirms this relationship: Where H0 equals that there is no relationship between OPAC use and previous attempts at searching, H1 equals that there is a relationship between OPAC use and previous attempts at searching in the library. The test confirms with a 90% (0.1) significance level that H1 can be accepted, suggesting that a relationship does exist. The significance value given was 0.091 with 1 degree of freedom.

Figure 99 illustrates the total sample’s responses to the question: ‘Were your previous attempts to find this information successful?’



**Figure 99 – Successful previous attempts – Total sample**

The ‘yes’ category has the highest frequency of responses. When the results are split into those responses from non OPAC users and those from OPAC users, some differences become apparent:



**Figure 100 – Successful previous attempts**

**Figure 101 – Successful previous attempts  
OPAC users**

When asked if their previous searches had been successful, only a very low percentage of non users indicated 'no' – 16.67% compared with 36.84% of OPAC users. Significantly more non users, 83.33% compared to OPAC users, 57.89%, indicated that their search had previously been successful. Consequently it appears that OPAC users tend to have had a less successful search on a previous occasion.

When the Pearson Chi-Square is implemented it confirms this apparent relationship: Where H0 equals: there is not a relationship between OPAC use and the success of previous searches and H1 equals: there is a relationship between OPAC use and the success of previous searches, the test confirms with a 95% (0.05) level of certainty that there is a relationship between educational level and OPAC use. The test gave a 0.045 level of significance and 1 degree of freedom. Consequently, it can be concluded that an ongoing search activity does influence OPAC use.

#### 4.2.1 The Pilot Questionnaire

The pilot questionnaire was not intended to form a part of the overall study and certainly, due to the small sample size, the results cannot be widely generalised from. However, the pilot questionnaire does provide an indication of what might be some of the differences with regards to OPAC use in public libraries and academic libraries. Subsequently this can be used to inform the research into the factors that influence the use of OPACs in public libraries. Figure 102 illustrates the percentage of OPAC use in an academic library. Figure 103 shows the percentage of OPAC use in a public library.

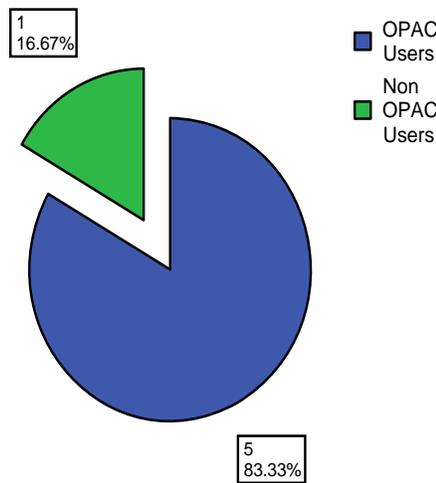


Figure - 102 OPAC use in an academic library

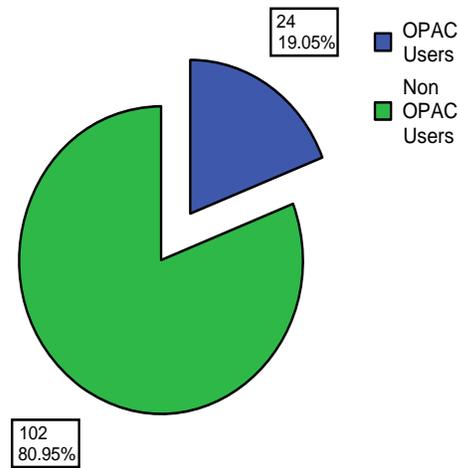


Figure 103 - OPAC use in a public library

It is clear from the above pie charts that the percentage of those who used the OPAC in an academic library is nearly equal to the percentage of people who did not use the OPAC in a public library. Consequently the pilot study gives an indication that there may be vast differences in use of the OPAC in public libraries compared to academic libraries.

## **5 Chapter 5 - Discussion**

### **5.1 Introduction**

The discussion given here reflects on the research findings, relating them to the aims of the research. The central aim of the research was to identify the factors that influence public library users' use (or non use) of the OPAC. The intention was to look for any relationships between the identified factors and OPAC use or non use.

It is apparent that all of the factors have the potential to influence individuals in their use of the OPAC. However, while some take a very prominent role in the way they influence the public's use of the OPAC, others take only a minor role. The tables inserted below allow a visual summary of which factors can be considered to have a prominent role in influencing the public's use of OPACs based largely on the emergence of apparent relationships from the questionnaire.

Table Key: ✘ = Cannot be identified as a major factor

✓ = Can be identified as a major factor

? = Warrants further investigation

## 5.2 Intervening Variables

### Intervening Variables: Personal Characteristics - Educational level and demographic variables

Factors	Do the factors influence OPAC use?
Educational Level	?
Gender	✘
Nationality	✘
First Language	✘
Occupation	✓
Age	✓

#### *Educational Level:*

There were some differences in the educational level of OPAC users and non users. In particular OPAC users tended to have a bachelors or masters degree as their highest qualification whereas responses in the 'A level' category were much higher for non OPAC users. Although unable to be relied upon due to the small size of the sample, the results of the pilot study do give an indication that OPACs are more likely to be used in academic libraries than in public libraries. This lends support to an apparent explanation of why people who are more highly educated tend to use the OPAC, suggesting that OPAC users have a greater likelihood of having used the OPAC as part of a search before in an academic library. This may encourage them to make use of the OPAC again in another location.

However, a relationship between educational level and OPAC use could not be reliably confirmed partly due to bad questionnaire design which rendered a large number of responses in the 'no response' category for this question. Consequently, the question of whether educational level influences the public's use of OPACs warrants further investigation.

*Gender:*

It can be concluded with a great degree of certainty that gender is not a factor that influences OPAC use. The data analysis revealed no significant differences in the responses of OPAC users and non users in relation to their gender.

*Nationality:*

It was difficult to establish whether a relationship existed between OPAC use and nationality due to the low number of responses in categories other than British. However, by comparing the responses of OPAC users and non users it appears that no differences existed in the percentage rates of those people who responded to the question. Therefore the conclusion has been reached that nationality is not a factor that influences OPAC use.

*First Language:*

In a similar manner to those responses to nationality, library users had a much greater tendency to speak English as their first language than any other language. However, there are much larger differences between the responses from OPAC users and those from non OPAC users. It was expected that differences may exist between OPAC users and non users with regards to first language as the OPAC is not capable of functioning in any language other than English. For a minority of library users language will probably be a barrier that prevents them from using the OPAC. However, in general, first language is not a factor that influences the public's use of the OPAC.

*Occupation:*

From the data analysis, it can be concluded that occupation does influence OPAC use. Those people who are retired tend not use the OPAC. In contrast, those respondents working in professions where they are more likely to use a

computer tend to use the OPAC the most. The implications from these findings can be linked to those for the finding to the age demographic below.

*Age:*

Interestingly, nobody over the age of 60 used the OPAC. This allows the conclusion to be formulated that age is a factor that influences the public’s use of OPACs. The fact that the elderly have a general reluctance to use information technology is well documented. It has led many libraries in England to organise training session specifically designed to encourage elderly people to use the internet. However, when age was cross tabulated with the responses to questions in the questionnaire relating to feeling nervous or afraid to use the OPAC, no significant differences were found in the responses from elderly people and those from younger people.

**Intervening Variables: Personal Characteristics – Physiological, cognitive and emotional variables**

Factors	Do the factors influence OPAC use?
Physiological	✘
Cognitive	?
Emotional	✘

*Physiological variables:*

The physiological characteristics of a person were clearly factors that prevented a small number of people from using the OPAC. As people were completing the questionnaire they generally indicated that this was due to failing eyesight. The OPAC does not have capabilities for accommodating those who are visually impaired, nor does it have any access capabilities for people with any other type of disability. So clearly, for those people who do have a physical disability,

their impairment would be a major contributing factor as to why they do not use the OPAC. However, in general non OPAC users tended not to have a physical condition that prevented them from using the OPAC. Consequently physiological factors cannot be regarded as a major factor contributing to people's disuse of the OPAC.

*Cognitive variables:*

Cognition as an intervening variable that influences the public's use of OPACs was concluded to warrant further investigation. Although the results suggested that most library users felt able to use both the library and the OPAC effectively, there also existed some slight variations in the responses to some of the questions depending on whether the respondent was a user or non user of the OPAC. In particular with those responses to the question 'How well do you consider yourself to know your way around this library?' However, the nature of the questionnaire did not allow the significance of these apparent relationships to be tested.

*Emotional Variables:*

From a comparison of the questions asked to OPAC users and those asked to non OPAC users, it was concluded that there were few differences between them regarding their feelings of comfort whilst in the library. In addition the comparisons revealed that whilst people who used the OPAC felt comfortable using it people who did not use the OPAC were not necessarily afraid or nervous about using it.

### **Intervening Variables: Social/Interpersonal Variables**

Factors	Do the factors influence OPAC use?
Social/interpersonal	✘

#### *Social/Interpersonal variables:*

By comparing those questions asked to OPAC users and those asked to non users it can be concluded that social/interpersonal variables do not function as factors that influence the public's use of OPACs.

### **Intervening Variables: Economic - Time**

Factors	Do the factors influence OPAC use?
Economic	✓

#### *Time:*

Contrasting results emerged for the factor of time as an economic variable. Whilst OPAC users generally required time in order to use the OPAC, non users were not inclined to use the OPAC even though they did have enough time to use it. This suggests that while time is a factor that influences OPAC use, other factors are more likely to prevent non users from using the OPAC before time becomes an issue.

**Intervening Variables: Source Characteristics – Access, credibility and channel**

Factors	Do the factors influence OPAC use?
Access	✗
Credibility	✓
Channel	✓

*Access:*

A comparison of the responses of the questions put to OPAC users and those put to non users reveals that both OPAC users and non users tended to be aware of the location of the OPAC in the library. This finding was anticipated for OPAC users and can be regarded as a factor that influences their use of the OPAC. However the OPACs in the library are not located in very prominent positions, consequently it was expected that the variations in the responses from OPAC users and non users would be much greater. This is also something that Sheffield central library has anticipated. Lesley Gunter, the lending services officer at Sheffield library, indicated during the research that the library is currently planning to change the position of the OPACs within the central lending service. However, whilst the data analysis does indicate that for a minority of OPAC users greater access to the OPAC may generate increased OPAC use, in general access to the OPAC cannot be regarded as a factor that influences use of the OPAC.

*Credibility:*

The questions establishing credibility did not only focus on the perceived credibility of the OPAC, they also attempted to establish if the credibility of other sources influenced OPAC use. The findings revealed that OPAC users tended to be less satisfied with librarians as an information source, they were also less satisfied than non OPAC users with browsing the shelves. It seems OPAC users use the OPAC because they consider other sources less credible. This is supported by the fact that when library users were satisfied with other sources, they tended not to use

the OPAC regardless of their actual feelings concerning its credibility. Consequently the credibility of information sources in the library does influence the public's use of OPACs.

*Channel:*

Channel can be considered a factor that influences the public's use of the OPAC. Non users expressed a clear tendency to prefer browsing the shelves. However, for OPAC users, the preference for using the OPAC was less clear. A large percentage of OPAC users actually prefer to browse the shelves. This links channel preference to the findings relating to credibility, indicating that users used the OPAC even though they preferred to browse the shelves.

### 5.3 Information Need

#### Information Need: Information Need and Item Type

Factors	Do the factors influence OPAC use?
Information need	✓
Item type	✓

From the data analysis it was concluded with a 90% significance level that there was a relationship between information need and OPAC use. A firm conclusion regarding OPAC use and information type can also be expressed on the basis of the questionnaire findings. Whilst the requirement for fiction or non fiction has no bearing on OPAC use, the type of information needed does. People only use the OPAC for books and occasionally videos or DVDs. This finding allows several possible explanations to be formed: firstly, library users, despite their own impressions, may not actually be aware of the full capabilities of the OPAC – therefore when the OPAC is used most people only use it for the purposes of locating library books. Alternatively, browsing, being a preferred option when searching, may be more successful for certain types of material ensuring that library

users do not need to use the OPAC. Certainly collections of other types of material are much smaller than books, making them easier to search through by browsing.

#### 5.4 Risk and Reward Theory

##### Risk and Reward Theory: Time and Distance

Factors	Do the factors influence OPAC use?
Time	✘
Distance	✘

##### *Time:*

From the data analysis it was concluded that time as a risk and reward factor did not influence the public's use of OPACs. In general OPAC users and non users spent very similar amounts of time in the library.

##### *Distance:*

Like time, distance as a factor of risk and reward was not considered to influence the public's use of OPACs. However, the distance categories for this question were fairly close together, meaning that they did not account for distances that were much greater than 6 miles.

## 5.5 Social Learning Theory – Self Efficacy

### Social Learning Theory – Self Efficacy

Factors	Do the factors influence OPAC use?
Self Efficacy	✘

Self Efficacy was not accepted as being a factor that influenced the public's use of OPACs. Like cognition most non OPAC users did feel that they were capable of using the OPAC and despite this chose not to use it. However, the analysis of this data also revealed that those people who had difficulty using the OPAC do not necessarily desire any assistance to use it.

## 5.6 Information Seeking Behaviour

### Information Seeking Behaviour – Ongoing Search

Factors	Do the factors influence OPAC use?
Ongoing search	✓

#### *Ongoing search:*

The data analysis suggests that type of search is a factor that influences OPAC use. When conducting an ongoing search library users have a greater tendency to use the OPAC, particularly if their previous search for information was unsuccessful. This relates to those findings previously discussed identifying channel and credibility as source characteristics. It seems that OPAC users tend only to use the OPAC if they have been failed in some way by other sources of information.

### **5.7 Factors not explored:**

Environmental variables, stress and coping theory, information processing and use and several type of search were all factors which were not explored within the questionnaire. Before it can be established whether or not these factors do influence the public's use of OPACs, further data collection will be required using methods of investigation more suited to exploring their characteristics.

### **5.8 Summary: What are the factors that influence the public's use of OPACs?**

Several factors can be regarded as influencing the public's use of OPACs: certain personal characteristics, in particular age and occupation; the economic variable of time; the channel of communication and the credibility of the source; information need and type of information required and finally, information seeking behaviour as an ongoing search.

## **6 Chapter 6 - Conclusions and Recommendations**

### **6.1 Introduction**

The dissertation has used a deductive methodology in order to try and establish which factors influence the public's use of OPACs. In doing so it has utilised Wilson's (1996) model of information seeking behaviour, drawing from that model several factors that have been identified to influence information seeking behaviour.

The research can be seen to have contributed towards OPAC research, offering an insight into how OPACs are used within the wider public library environment. In particular it has proven the need for such research, allowing several conclusions and recommendations to be expressed which could not have been formulated from studying people's actions at the OPAC terminal.

### **6.2 Conclusions and Recommendations**

Whilst the discussion chapter showed how the aims of the research have been met, the research objectives have not yet been addressed. This shall now be done. The central objective of the research was to inform the better deployment of OPACs in public libraries. The conclusions and recommendations given here show how this might be achieved:

In summary it was concluded that:

- Library users who rarely encounter information technology in other areas of their lives, such as those who are retired, are less likely to use the OPAC. These people also make it clear that they do not generally feel more anxious with regards to using the OPAC than those people younger than them. It seems that the only reason why these types of library users are less likely to use the OPAC is because they are not used to relying on information technology.
- Library users were less likely to use the OPAC if they needed information for the purposes of escapism. It is possible that library users with a need for escapism are

less likely to have a specific item in mind. Therefore the OPAC may be less useful for them and browsing increasingly preferable.

- Library users tend to claim that they prefer browsing the shelves rather than using the OPAC, even though OPACs can be regarded as more efficient and promise greater accuracy than browsing.
- Additionally, library users tend only to use the OPAC when searching for books.

All of the above points relate to a single recommendation: Public libraries need to consider what OPACs can offer to elderly users and those who currently find browsing the shelves preferable to using the OPAC. They need to promote the benefits of using the OPAC to these users and ensure that it can enable them to meet their needs effectively.

Why people only use the OPAC for books is a matter for further consideration. However, it does seem likely that although people claim to understand what the OPAC can be used for, they may be lacking a full understanding of its complete capabilities. Once again, some form of promotion could address this.

There is one final point to consider:

- It appears that library users only use the OPAC if they have time.

In order to encourage OPAC use, it is therefore necessary for public libraries to consider how time efficient their OPACs are. This may lead to improvements regarding the design or capabilities of the OPAC.

Consequently, although the dissertation has shown how OPACs might be better deployed in public libraries, it has also shown that achieving this is often inextricably linked with improving the design of OPACs.

### **6.3 Limitations**

Before drawing from the recommendations, it is advised that the following limitations of the research be taken into account:

- The sampling method used for the questionnaire distribution met the conditions of random sampling. However, the data collection took place over a short timescale, and it is probable that certain types of people use the library more frequently during some parts of the year than they do in others. Students for example, having largely completed their studies for the year, may have been present in the public library in larger numbers than at other times of the year. To some extent this may have affected the reliability of the research but could not have been avoided.
- Whilst the sample size was acceptable for the scale of the research, it did not always allow reliable hypothesis testing. This was mainly due to the proportion of OPAC users in the sample being so small. Ultimately this meant that many categories of response contained too few results to be tested reliably.
- Certain limitations in the questionnaire design rendered it impossible to establish with any certainty the influence that certain factors had on OPAC use. For example, the true educational level of respondents was not established in the questionnaire, leaving the question of whether educational level is a factor that influences OPAC use unresolved.
- Not all of the factors present within Wilson's model have been examined. This means that while the research has met its aims and objectives in that it has recognised a number of factors and suggested how these influence the public's use of OPACs, it cannot be considered complete in the understanding it offers concerning the use of OPACs in public libraries.

#### **6.4 Further Research**

Several areas of further research relating to the current study can be identified:

- This research has failed to explore all of the factors that may influence the public's use of OPACs. It may therefore be beneficial to conduct a similar study using methods more appropriate to exploring the other potential factors.
- This study has focused on adult users of the public library. It may therefore be beneficial to perform a similar study aimed at identifying the factors that influence children's use of OPACs.

## Appendices

Appendix 1  
The Questionnaire

## Section 1

- 1) Please indicate whether the information you needed from the library today was fiction or non fiction:

**Fiction**   
**Non Fiction**

- 2) Please provide further information by ticking all relevant boxes:

**Leaflet/Booklet**       **Video/DVD**   
**Journal**       **CD**   
**Book**       **Magazine**   
**Newspaper**       **Other**  *Please*  
*Specify* \_\_\_\_\_

- 3) Please indicate how important you felt your information need to be by circling the relevant section:

**Very Important**      **Important**      **Not sure**      **Fairly Important**      **Not**  
**Important**  
**5**                      **4**                      **3**                      **2**                      **1**

- 4) Please indicate why you need this information? (*Please tick all relevant boxes*)

**Escapism**   
**Emotional fulfilment**   
**Intellectual fulfilment**   
**Other**  *Please*  
*specify* \_\_\_\_\_

- 5) Was this the first time that you have searched for this information?

**Yes**  (*If yes please go to question 9*)  
**No**

- 6) Where have you looked for this information before?

**Bookshop**   
**Internet**   
**Other library**   
**This library on another occasion**   
**Other**  *Please specify*  
\_\_\_\_\_

7) Were your previous attempts to find this information successful?

Yes

No

8) Please indicate if any of the following factors influenced your choice to search in the library today?

**The price of obtaining the information from another location**

**The information I required was unavailable at other locations**

**I knew the information I wanted was in the library today**

**Other**  *Please specify* \_\_\_\_\_

9) Have you ever used this library before?

Yes

No

10) How comfortable did you feel when using the library today?

<b>Very Comfortable</b>	<b>Comfortable</b>	<b>Not sure</b>	<b>Fairly uncomfortable</b>	<b>Very Uncomfortable</b>
<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>

11) How often do you generally use this library?

**1-3 times a year**

**1-3 times a month**

**3 times or more a week**

**Other**  *Please specify* \_\_\_\_\_

12) How well do you consider yourself to know your way around this library?

<b>Very well</b>	<b>Fairly well</b>	<b>Not sure</b>	<b>Not very well</b>	<b>Not at all</b>
<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>

13) When you first entered the library today, did you have a good idea of what actions you needed to take to find the information you needed?

<b>I knew exactly</b>	<b>I had a fair idea</b>	<b>Don't know</b>	<b>Not really</b>	<b>Not at all</b>
<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>

14) Please tick any relevant boxes which indicate the action you took when trying to locate the information you needed within the library today:

- I asked a librarian for assistance**   
**I browsed the shelves**   
**I searched on the OPAC**   
**Other**  *Please specify* \_\_\_\_\_

15) If you took more than one action to search in the library today, please circle which action you took first, which you took second and which you took third:

<b>First action:</b>	<b>Browsed shelves</b>	<b>Asked librarian</b>	<b>Searched OPAC</b>
<b>Second action:</b>	<b>Browsed shelves</b>	<b>Asked librarian</b>	<b>Searched OPAC</b>
<b>Third action:</b>	<b>Browsed shelves</b>	<b>Asked librarian</b>	<b>Searched OPAC</b>

16) If you asked a librarian for assistance, how successful was this?

<b>Very successful</b>	<b>Fairly successful</b>	<b>Don't know</b>	<b>Not very successful</b>	<b>Not at all</b>
<b>successful</b>				
<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>

Please briefly explain the reason for your answer: \_\_\_\_\_

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17) If you browsed the shelves how successful was this?

<b>Very successful</b>	<b>Fairly successful</b>	<b>Don't know</b>	<b>Not very successful</b>	<b>Not at all</b>
<b>successful</b>				
<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>

Please briefly explain the reason for your answer: \_\_\_\_\_

---

---

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18) If you searched the OPAC in the library, how successful was this?

<b>Very successful</b>	<b>Fairly successful</b>	<b>Don't know</b>	<b>Not very successful</b>	<b>Not at all successful</b>
<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>

Please briefly explain the reason for answer:

---

---

---

19) Did you take any action to assist with your search before you entered the library today?

**Yes**   
**No**  (*Go to question 21*)

20) What was this action?

**I searched the OPAC via the internet at home**   
**I searched the OPAC at a different library**   
**I searched the OPAC in this library on a previous occasion**   
**I asked a librarian at another library**   
**I asked a librarian at this library on a previous occasion**   
**Other**  *Please specify*

---

21) Approximately, how much time did you spend searching in the library today?

**5 minutes or less**   
**Between 5 and 20 minutes**   
**Between 20 and 30 minutes**   
**Longer than 30 minutes**  *Please specify approximately*

---

22) Do you feel the time you spent searching in the library was adequate?

**I spent more time than I would have liked to**   
**I spent just about the right amount of time**   
**I did not have time to spend as long as I would have liked**   
**Other** \_\_\_\_\_

---

23) Did you find what you were looking for in the library today?

Yes

No

24) Approximately how far have you had to travel to use the library today?

0-1 miles

1-3 miles

3-6 miles

Over 6 miles  *Please specify approximately* \_\_\_\_\_

25) Please specify the following details about yourself:

Age: \_\_\_\_\_

Nationality: \_\_\_\_\_

First language: \_\_\_\_\_

Occupation: \_\_\_\_\_

Gender: Male

Female

26) Please indicate the highest qualification you have or are currently studying towards:

GCSEs or equivalent (e.g. O'levels)

A'levels or equivalent

Bachelors degree

Masters degree

PHD

Other  *Please*

*specify* \_\_\_\_\_

## Section 2

Please complete this section if you did **not** use the catalogue (OPAC) in the library when searching for the information you needed today. You will need to indicate the extent to which you agree with each of the following statements:

I did not use the OPAC because I have never used one before

<b>Strongly agree</b>	<b>Agree</b>	<b>Don't know</b>	<b>Disagree</b>	<b>Strongly disagree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

I did not use the OPAC because I do not know how to use it

<b>Strongly agree</b>	<b>Agree</b>	<b>Don't know</b>	<b>Disagree</b>	<b>Strongly disagree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

I did not use the OPAC because I feel afraid to use it

<b>Strongly agree</b>	<b>Agree</b>	<b>Don't know</b>	<b>Disagree</b>	<b>Strongly disagree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

I did not use the OPAC because I feel nervous about using it

<b>Strongly agree</b>	<b>Agree</b>	<b>Don't know</b>	<b>Disagree</b>	<b>Strongly disagree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

I did not use the OPAC because I would have liked library staff to help me use it

<b>Strongly agree</b>	<b>Agree</b>	<b>Don't know</b>	<b>Disagree</b>	<b>Strongly disagree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

I did not use the OPAC because I felt that the staff were too busy to help me

<b>Strongly agree</b>	<b>Agree</b>	<b>Don't know</b>	<b>Disagree</b>	<b>Strongly disagree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

I did not use the OPAC because I felt that the staff would not want to help me

<b>Strongly agree</b>	<b>Agree</b>	<b>Don't know</b>	<b>Disagree</b>	<b>Strongly disagree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

I did not use the OPAC because I do not know where the OPAC is situated in the library

<b>Strongly agree</b>	<b>Agree</b>	<b>Don't know</b>	<b>Disagree</b>	<b>Strongly disagree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

This is the first time I've ever heard of an OPAC

<b>Strongly agree</b>	<b>Agree</b>	<b>Don't know</b>	<b>Disagree</b>	<b>Strongly disagree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

I did not use the OPAC because I am unsure what the OPAC can be used for

<b>Strongly agree</b>	<b>Agree</b>	<b>Don't know</b>	<b>Disagree</b>	<b>Strongly disagree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

I did not use the OPAC because I do not generally find what I'm looking for when I use it

<b>Strongly agree</b>	<b>Agree</b>	<b>Don't know</b>	<b>Disagree</b>	<b>Strongly disagree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

I did not use the OPAC because I have used it before but find it difficult to use

<b>Strongly agree</b>	<b>Agree</b>	<b>Don't know</b>	<b>Disagree</b>	<b>Strongly disagree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

I did not use the OPAC because I have tried to use it before but was not successful

<b>Strongly agree</b>	<b>Agree</b>	<b>Don't know</b>	<b>Disagree</b>	<b>Strongly disagree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

I did not use the OPAC because I have tried to use it before but felt confused

<b>Strongly agree</b>	<b>Agree</b>	<b>Don't know</b>	<b>Disagree</b>	<b>Strongly disagree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

I did not use the OPAC because I prefer to browse the shelves

<b>Strongly agree</b>	<b>Agree</b>	<b>Don't know</b>	<b>Disagree</b>	<b>Strongly disagree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

I believe browsing the shelves is more accurate than using the OPAC

<b>Strongly agree</b>	<b>Agree</b>	<b>Don't know</b>	<b>Disagree</b>	<b>Strongly disagree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

I did not use the OPAC because I prefer to ask staff to help me locate items

<b>Strongly agree</b>	<b>Agree</b>	<b>Don't know</b>	<b>Disagree</b>	<b>Strongly disagree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

I believe asking staff is more accurate than using the OPAC

<b>Strongly agree</b>	<b>Agree</b>	<b>Don't know</b>	<b>Disagree</b>	<b>Strongly disagree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

I did not use the OPAC because I have a physical reason that prevents me from using it

<b>Strongly agree</b>	<b>Agree</b>	<b>Don't know</b>	<b>Disagree</b>	<b>Strongly disagree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

I did not use the OPAC because I didn't have enough time

<b>Strongly agree</b>	<b>Agree</b>	<b>Don't know</b>	<b>Disagree</b>	<b>Strongly disagree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

I did not use the OPAC because I didn't consider my information need to be important enough to bother

<b>Strongly agree</b>	<b>Agree</b>	<b>Don't know</b>	<b>Disagree</b>	<b>Strongly disagree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

### Section 3

Please complete this section if you **did** use the catalogue (OPAC) in the library when searching for the information you needed today. You will need to indicate the extent to which you agree with each of the following statements:

I used the OPAC because I have used it before

<b>Strongly agree</b>	<b>Agree</b>	<b>Don't know</b>	<b>Disagree</b>	<b>Strongly disagree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

I used the OPAC because I know how to use it

<b>Strongly agree</b>	<b>Agree</b>	<b>Don't know</b>	<b>Disagree</b>	<b>Strongly disagree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

I used the OPAC because I feel comfortable using it

<b>Strongly agree</b>	<b>Agree</b>	<b>Don't know</b>	<b>Disagree</b>	<b>Strongly disagree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

I used the OPAC because I felt confident in my ability to use it

<b>Strongly agree</b>	<b>Agree</b>	<b>Don't know</b>	<b>Disagree</b>	<b>Strongly disagree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

I used the OPAC because I was shown how to use it by a member of staff

<b>Strongly agree</b>	<b>Agree</b>	<b>Don't know</b>	<b>Disagree</b>	<b>Strongly disagree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

I used the OPAC because library staff encouraged me to use it

<b>Strongly agree</b>	<b>Agree</b>	<b>Don't know</b>	<b>Disagree</b>	<b>Strongly disagree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

I used the OPAC because I knew the library staff would be willing to help me

<b>Strongly agree</b>	<b>Agree</b>	<b>Don't know</b>	<b>Disagree</b>	<b>Strongly disagree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

I used the OPAC because I know exactly where it is positioned in the library

<b>Strongly agree</b>	<b>Agree</b>	<b>Don't know</b>	<b>Disagree</b>	<b>Strongly disagree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

I used the OPAC because I understand what the OPAC can be used for

<b>Strongly agree</b>	<b>Agree</b>	<b>Don't know</b>	<b>Disagree</b>	<b>Strongly disagree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

I used the OPAC because I generally find the information I need when I use it

<b>Strongly agree</b>	<b>Agree</b>	<b>Don't know</b>	<b>Disagree</b>	<b>Strongly disagree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

I used the OPAC because I find it easy to use

<b>Strongly agree</b>	<b>Agree</b>	<b>Don't know</b>	<b>Disagree</b>	<b>Strongly disagree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

I prefer to use the OPAC rather than just browsing the shelves

<b>Strongly agree</b>	<b>Agree</b>	<b>Don't know</b>	<b>Disagree</b>	<b>Strongly disagree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

Searching the OPAC is more accurate than browsing the shelves

<b>Strongly agree</b>	<b>Agree</b>	<b>Don't know</b>	<b>Disagree</b>	<b>Strongly disagree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

I prefer to use the OPAC than to ask for the assistance of library staff

<b>Strongly agree</b>	<b>Agree</b>	<b>Don't know</b>	<b>Disagree</b>	<b>Strongly disagree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

Searching the OPAC is more accurate than asking staff for assistance

<b>Strongly agree</b>	<b>Agree</b>	<b>Don't know</b>	<b>Disagree</b>	<b>Strongly disagree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

I used the OPAC because I had plenty of time to use it

<b>Strongly agree</b>	<b>Agree</b>	<b>Don't know</b>	<b>Disagree</b>	<b>Strongly disagree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

I used the OPAC because I considered my information need to be important enough to make the effort

<b>Strongly agree</b>	<b>Agree</b>	<b>Don't know</b>	<b>Disagree</b>	<b>Strongly disagree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

Appendix 2  
Questions answered as part of the pilot study

***Please answer the following questions regarding your feelings about the questionnaire.***

- 1) How long has it taken you to complete this questionnaire?**
  
- 2) Were the instructions clear?**
  
- 3) Were any of the questions ambiguous?**
  
- 4) If so, will you say which and why?**
  
- 5) Did you object to answering any of the questions?**
  
- 6) Was the layout of the questionnaire clear?**
  
- 7) Any comments?**

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