Borrowing patterns in public libraries: a study of loan data from computer systems

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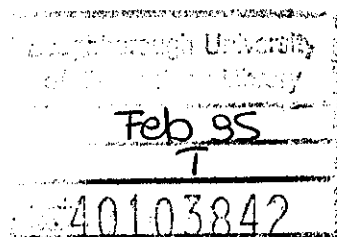A study of loan data from computer systems

by

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partial fulfilment of the requirements for the award of the
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ABSTRACT

Traditionally, the computer systems in public libraries could not keep records of the circulation history. With BookshelF, it is now possible to record the historical data and store them in the computer. This study analysed the loan data generated from the computers in Sandwell and Hounslow Libraries to establish major borrowing patterns. Comparisons were also made between the two services.

It was found that although fiction loans are generally high, the number of borrowers borrowing fiction is a less important percentage. Non-fiction borrowers, on the other hand, are a much higher percentage than the figure of non-fiction loans suggests. It is because fiction borrowers particularly the elderly borrow relatively large number of fiction books.

There are many borrowers whose borrowings are general rather than specialised. It is shown by the proportion of borrowers borrowing both fiction and non-fiction, and the number of categories and authors borrowed by individuals.

The proportion of borrowers borrowing both books and non-books is not high. Those who borrow mainly non-books is only a very small proportion.

In terms of sex, more males than females borrow non-fiction, and more females than males borrow fiction. In terms of age, the elderly borrow much more fiction than the 18-59 adults. But they borrow appreciably less non-fiction and non-book materials than the 18-59 adults.

It was recommended that this vast wealth of data contained in the computer records should be further investigated for other aspects of the borrowing patterns. Future studies should also examine the relationship between borrowers' socio-economic background and education levels, and the type of books they borrowed.

ACKNOWLEDGEMENTS

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INTRODUCTION

Much research has been devoted to book stock management and stock control methods. Many libraries in the U.S.A. and in the U.K. have conducted formal analysis of failure to meet specific author/subject/title demands. Studies have focused on the adequacy of book stock provision and on measuring use of book stock categories. This study - in contrast - focuses on the borrowers' patterns of use. Who are the borrowers? What type of books do they read? What did they borrow? What were their favourite book categories?

Until now doing such research would have been laborious and expensive since library computer systems had no facility to retain historical data of books borrowed by individual borrowers. This study describes the way in which the BookshelF computer system allows analysis of historical borrowing data. It is now feasible to analyze borrowers' loans and so establish characteristic features of this activity.

The main work was done at Sandwell Libraries in Birmingham. However, the sample there was on the small side - and there were some suggestions of possible bias. It was therefore decided to do a second sampling at Hounslow Libraries in order to validate the initial results. Apart from the larger sample - which was important - Hounslow data included the large central library, which was not incorporated into the Sandwell data. By sampling from two authorities - with different socio-economic populations and different library traditions - the validity of the analysis has been greatly improved. However, the contrasting results also led to comparison of the two services - with interesting and quite strong differences.

There are important conclusions drawn from this analysis - as well as suggestions for further research along the tracks explored here. There is scope for even further analysis of these data than has been undertaken here.

CHAPTER 1   LITERATURE REVIEW

Public library user studies have been carried out for a long time. As the libraries have seen their role to serve the community as a whole, it is necessary to find out more about the community - who are the library users, how frequently do they use the libraries, what are their information needs, and what uses are made of the libraries. Recent studies tend to consider user characteristics and the type of books borrowed.

User characteristics

The study of demographic characteristics of library users have been the major aim in public library user studies.   These studies examined library users in terms of age, sex, occupation, educational level and socio-economic background.   These studies (Cheshire 1985a; Birmingham 1991; England 1992; Sumsion 1993) found that :

* women were more likely to use libraries than men;
* non-manual and skilled manual workers had a higher level of use than
   unskilled manual workers and the unemployed; and
* the elderly constituted a larger proportion among regular borrowers.

These factors can be used to predict if a person is likely to use a public library. However, it is just not enough to know who the users are and where they come from. Library managers need to know more about the specific information library users want from the libraries. What sort of books do they borrow? Some studies sought to answer this question.

Fiction and Non-fiction

Richardson (1987) considered the library book loans in terms of fiction and non-fiction. He found that works of fiction were the most popular items for loan among teenagers, with more girls reading fiction than boys. These results were confirmed by a similar study on teenagers in Nottinghamshire (Hill and Pain 1988).

To look at the library users as a whole, the statistics from Public Lending Right (Sumsion 1991, pp. 60-61) showed that in PLR loans by book type in 1989, fiction dominated loans (52.1%), followed by adult non-fiction (24.4%), junior fiction (17.5%) and junior non-fiction (4.2%). Other surveys like the monthly statistics in Bromley in 1993 (Sumsion 1993) also supported these results.

The national research survey carried out by Book Marketing Ltd. (England 1992, pp.27-46) produced a lot of data on the borrowing of fiction and non-fiction. It found that "those who read non-fiction were much more likely to be men, to be in the artisan classes, and to have left school early" (England 1992, p.46). When comparing early school leavers (who left school at 15 or younger) with long education group (who left school at 18+), the library borrowing habits were similar. Regarding fiction, thrillers were the most popular, followed by fiction/fantasy and romance.

Categorising library stock into fiction and non-fiction may be too crude to be helpful for library planning. Therefore, some studies tried to classify the loans by book type into a range of categories.

Book Categories

On the question of book categorisation, studies in this area covered a wide range of categories, and hence they produced varied results.

The Cheshire Survey (Cheshire Library Service, Research and Intelligence Section 1985a) listed 6 categories for fiction, and 13 for non-fiction. There were also separate categories for Children Fiction and Non-fiction (Table 9.6). From the data of 1984 survey (section 9), it was found that thrillers were by far the most popular type of books read, followed by general fiction and adventure.

At the same time, the survey (Cheshire Library Service, Research and Intelligence Section 1985b) also studied what sort of books the unemployed borrowed. It found that most popular categories with the unemployed were thrillers, science fiction, general fiction, sports and hobbies, and do-it-yourself. They were less inclined to read romance, historical novels and travel books in particular (section 2.8.3).

What do teenagers read ? The Nottinghamshire Survey (Hill and Pain 1988, p.32) looked at teenagers' reading interests. The top ten favourite topics mentioned by girls were romance, adventure, horror, animals, biographies, ghosts, teenage stories, pop, sport and fashion/make-up. The boys' favourite topics were sport, science fiction, computers, cars/motor bikes, horror, history, science, humour, war and fantasy.

Addressing the issue of book categories, *PLR in Practice* (Sumsion 1991) contains a more detailed range of categories. It lists 5 categories for fiction and 11 categories for non-fiction. There are also 3 categories for both fiction and non-fiction (humour, crime/occult/sci-fi/horror, and war) and 1 category for foreign languages. Explanations of each category with its corresponding Dewey number are provided (see sample page in Appendix 1). The analysis of PLR loans by book type in 1989 showed that within adult fiction, the number of issues of

general fiction was the biggest, closely followed by romance and mystery/crime/thrillers. The least borrowed type of adult fiction was westerns. The breakdown of adult non-fiction issues showed hobbies, DIY, transport and computer titles to be the most borrowed. Biography was a fairly close second, followed by family, health and food (Sumsion 1991, p.62).

The study carried out by the Book Marketing Ltd. (Book Marketing Ltd. 1991) also investigated the type of fiction and non-fiction read and bought in the last 12 months. There was no indication in that analysis whether the books read were bought, borrowed from friends or from libraries. However, the data could reveal the reading interest of the frequent library users. It produced a much larger range of categories, with the list of fiction comprising 14 categories, and non-fiction, 21 categories.

What do the elderly read ? Among the frequent library users who read fiction (Book Marketing Ltd. 1991, p.59), men over 60 were more likely to read crime/thriller detective stories (62%) and war/adventure stories (60%). Women over 60 were more likely to read historical novels/historical romances (69%), romance/love stories (62%) and crime/thriller detective stories (59%).

Regarding non-fiction, more than one-third of men over 60 read biography/autobiography, history and war (47%, 45% and 41% respectively). Biography/autobiography was also very popular among women over 60 (41%). But the most popular type of non-fiction was true-life stories (45%) (Book Marketing Ltd., 1991, pp.65-66).

Since the studies considered so far focused on different categories and user groups, it is difficult to make a precise comparison of their findings. However, several patterns of borrowing emerged. Within fiction, thrillers seem to be most popular among adults, and horror fiction among teenagers. General fiction comes second in popularity. Romances

appeal particularly to females. Within non-fiction, biographies are the most popular, while history and war appeal particularly to males.

The most recent study which looked at borrowing in categories is the one conducted by Book Marketing Ltd. in 1993. It was a small pilot project in Westminster and Dyfed (Book Marketing Ltd., 1993). In this project, the borrowing patterns of 158 users were studied over a period of three months. The categorisation of non-fiction was simply divided into three major areas of DIY/self-improvement, travel and topography and all others, whereas fiction was not classified.

On the question whether the library users borrowed works of a particular author, it found that of 1450 books borrowed, only 15 were by Catherine Cookson. With regards to borrowing in categories, only a third (31%) had borrowed only fiction, and a third borrowed only non-fiction. Within non-fiction, only half (51%) of the borrowers borrowed in only one category, with a fifth (18%) borrowing in three or more (Book Marketing Ltd. 1993, p.3).

Their samples were understandably small as no computer data was obtainable. It is the purpose of this project to discover features of the books readers borrowed by analysing data collected in a computer system.

CHAPTER 2   LIBRARY AUTOMATION - BOOKSHELF

With pressure on revenue resources, library managers are expected to maintain the same standard of service with less resources. By automating library work, it is argued that automation provides more opportunities for flexible resource management (Batt 1992). As a result, bibliographic data can be linked to the transaction record. A number of library users can have access to the bibliographic records at the same time. All these help to maintain services and get the best out of fixed resources.

Batt (1992) has been conducting biennial surveys among library authorities to describe the development of library automation. The recent survey showed that library management systems continued to become more commonplace. In 1989, of the 167 separate library authorities in the UK, 113 indicated that circulation was computer-based in at least some of their libraries. In 1991, the figure has risen to 129, an increase of 14% (Batt 1992, p.2). There was a relatively steady growth in the gross number of library systems automating circulation. Batt (1992, p.3) hypothesized that the availability of BookshelF, a system which originated as a micro-based package, has made it possible for small library authorities to start using library automation.

In 1992, nine public library authorities, including Sandwell Community Libraries, have their libraries, wholly or partially, automated with BookshelF (Batt 1992, p.74). In recent years, successor new computer software, GENESIS, was developed. It operates on UNIX system, and it is considered to be more advanced than BookshelF in respect to the generation of management information. This system is currently used in the public libraries in Newport, N. Yorks and Havering.

BookshelF

BookshelF was developed by an Oxford-based company, Logical Choice, out of a British Library Research and Development Department Project into integrated microcomputer facilities for small libraries (Powne 1987). It is designed to run on a variety of computers from systems offering a single-user system up to large computers, which can accommodate over 500 users. (Specialist Computer Systems & Software Ltd. 1988, p.1)

The software was written on the PICK operating system which incorporates a relational database structure, a report writer and enquiry facility (ENGLISH) and a word processor (Logical Choice 1984, p.37). It consists of four modules: acquisitions, cataloguing, circulation and serial control. These modules are menu-driven. Each menu consists of a number of options, which are operated by the input of a single character. This operation either directs the user to a more detailed menu or to a formatted screen. Meanwhile, it is a real time, interactive, multiprogramming system. When a record is added to the catalogue, it can be filed and recalled immediately (Rowley 1992).

The system operates in a generalized database management computer system. It includes an inquiry language, file maintenance tools, an EDITOR and complete programming development facilities, which enables the user to access the database by using simple English (Pick Systems 1988, p.1-3). Through the inquiry language ENGLISH, regular and ad hoc reports, and management information statistics, can be generated in any format defined by the user. Output reports may appear on the terminal or be sent to the line printer.

However, although the supplier claimed that BookshelF is "the library management solution" (Logical Choice 1986, p.433), problems were experienced when the system was put to use in a real life, working environment. As this dissertation is concerned with data extracted from the database, commands were keyed in the editor to select and list data from different files. Since the software is designed to allow simple search and enquiry, it gave rise

to some difficulties for more complicated enquiries during the data collection stage. This will be discussed in greater detail in the section on Methodology.

CHAPTER 3   BACKGROUND OF SANDWELL AND HOUNSLOW LIBRARIES

I. SANDWELL COMMUNITY LIBRARIES

The earliest libraries in Sandwell can be dated back to 1860s. With the growth of the community and further development of the libraries, there are now altogether 22 community libraries across the borough. Of these, the largest libraries are the district libraries of Smethwick and West Bromwich, with 19 smaller libraries and 1 mobile library serving different areas in the borough. Library automation first started two years ago in Smethwick library, and currently six libraries have gone live in total. They are Smethwick, Thimblemill, Bleakhouse, Langley, Rounds Green and Wednesbury. There is also a schedule for the remaining libraries to go on line. The largest library, West Bromwich, is not yet automated.

The Sandwell libraries vary a lot in size, number of stocks and readers. They are situated in an industrial district where nearly 15% (HMSO 1993a) of the community consists of Asian ethnic groups. Therefore, it is not surprising that a sizable collection in the libraries has been devoted to books written in Asian languages. These languages include Gujarati, Hindi, Bengali, Punjabi and Urdu.

Book arrangement actually, and necessarily, differs among the libraries, when the size of the library, the number of stock and the nature of target readers are taken into consideration. The managers in individual libraries have presented the stock in the way which best meet their purposes and the needs of their customers. As seen from Smethwick Library, for example, books on local studies and local history are shelved on separate shelves, complete with good shelf guides. Asian language books are shelved separately in respect of the languages. Within each language, fiction and non-fiction books are put together.

Non-fiction books in the English Language are classified and arranged by Dewey Decimal Number. Fiction is divided into categories, such as romance, science fiction and

fantasy, westerns, horror stories and mysteries. Fiction books in the same categories are grouped together on separate shelves. One point to be noted is that teenage fiction is a category in its own right, and it is displayed prominently. Fiction which does not fall into any of these categories is arranged by the author's last name. In fact, when the computerised catalogue entries are made for fiction, there are 14 categories. When the items are entered onto the computer database, category codes will be placed in the class mark of the computerised catalogue entry.

Table 1 : Book Categorisation of adult fiction in Sandwell Libraries

Code	Category
AF	Adult Fiction
AT	Adventure/Thriller
ACB	Afro-Caribbean Interest
ASN	Asian Interest
CRI	Crime
FAM	Family Sagas
FAN	Fantasy
HIS	Historical
HOR	Horror
ROM	Romance
SF	Science Fiction
SS	Short Story
WAR	War
WES	Western

Children's books are categorised as children's fiction and non-fiction

A point of interest is the categories of Afro-Caribbean Interest (ACB) and Asian Interest (ASN). These categories are entered for books written by authors from Africa and the Caribbean, and authors from Indian the sub-continent. The stories are usually set in these geographical areas, or they reflect these cultures.

However, these categories do not constitute independent categories. In practice, books are classified according to the fiction categorisation scheme or Dewey Decimal Number. If the books also contain elements of Afro-Caribbean or Asian interests, ACB or ASN will be added to the class marks. The description of each fiction category is listed in Appendix 3.

II. HOUNSLOW LIBRARIES

Hounslow libraries are situated in the London Borough of Hounslow. There are 11 service points and 1 mobile library. The libraries have been computerised since March, 1993, with BookshelF system.

Hounslow libraries serve an unusually large ethnic community, which represents about 25% of the Hounslow's population (HMSO 1993b, p.30). Therefore, they have started up a new circulating collection of foreign language materials. These materials include a wide variety of European and Asian languages collection.

The adult fiction categories used in Hounslow libraries are similar to those in Sandwell: General fiction, crime, action, horror, romance, family sagas, science fiction, western, humour, graphic and Asian language fiction. In order to make the categories comparable with those in Sandwell, the fiction categories used in this study for Hounslow fiction are listed in table 2.

Table 2: Adult fiction categories used for Hounslow fiction

General Fiction	Romance
Crime	Action
Family Sagas	Horror
Science Fiction	Western
Humour	Graphic
Historical	Fantasy
Asian language Fiction	

Adult non-fiction are classified according to the Dewey Decimal Number. Children's books include baby, picture, easy readers, early learning and parent collection. In this study, children's books were broadly classed as children's fiction and non-fiction. Non-book materials cover spoken word, audio-cassettes, CD and videos.

CHAPTER 4   METHODOLOGY

In order to relate individual library users and the type of books they borrow, data were extracted from the computer records for examination. By doing so, it is also possible to assess how far computer records help to provide these data. Since an increasing number of library authorities have turned to library automation, data generated by the computer systems can be organised into statistical and management information. This information can be very useful to library managers in making decisions and forward planning.

The methodology of this study on extracting computer records necessarily has to be discussed in detail, since it was one of the important elements of this study, i.e. how far computer records can provide useful data on the relation between the reader and the books borrowed. The methodology has a value in its own right:

First of all, it was hoped that it could be useful to those librarians who are interested in generating similar data from BookshelF. Secondly, it illustrated the kind of problems which might be encountered by librarians making similar attempts. Finally, it could shed light to the direction in which computer people should work to extend their software.

To look at the type of readers and the type of books they borrow, it was necessary to get data concerning the readers themselves and the books. Therefore, it was seen that there were two areas of data which would be needed: reader data and book data.

Reader Data

Ideally, the reader data extracted should be able to give information about the reader's gender and age. This information could possibly give answers to these questions: Do the gender and/or age of readers affect the type of books they borrow, and in what ways?

Secondly, it was intended, as far as possible, to retrieve data about reader status or category. It was thought that these data could yield some information about the readers' socio-economic characteristics.

Thirdly, to identify individual readers so that they could be linked to the book data which would be extracted separately, the reader code would be an essential element to link the reader and the books together. Therefore, the reader code had to be selected with the other reader data.

This study looks at books issued to particular borrowers. In some instances, a borrower will borrow books for two or more people - typically spouse, child or parent. The data have to be interpreted bearing in mind this possibility.

Book Data

To examine the type of books, basic data about the books were needed. The ISBN is important as it identifies individual books. If some data about a particular book are missing, they could be traced by means of its ISBN. The author and title of a book are also very useful in identifying the type of book. However, the most informative piece of data in this respect should be the class number, or book category.

BookshelF

To be able to retrieve data from the computer, one must have some knowledge about the software - BookshelF. A general introduction about BookshelF was given in the previous section. This section will concentrate on the report generator of the software. Since several fields of data from different files were to be extracted in user-defined formats, complex commands had to be keyed in the Editor of the computer. Then the operating system of the computer would carry out the commands, and display the required data in the required format. As the construction of commands and the manipulation of data called for certain knowledge of the operating system, much time had been spent in consulting the manual and the reference book (Kiley 1989; Pick Systems 1988).

Kiley's dissertation (1988) is especially helpful as it explains how computer data can be retrieved with certain set ups and commands. It is worthwhile to summarise his work here. In the main body, he began by listing major types of circulation statistics in which library management is interested. Then he introduced the various parts of the PICK System. He discussed the PICK database, its hierarchical file structure and the arrangement of data in the files. The procedures for generating management information were also explained in detail, fully illustrated with worked examples. At the end, there were suggestions on how to improve the software to meet the needs of library management.

In order to understand how it was possible to extract relevant data in a specific format, and the problems later described, it is necessary to give a brief account of the operating system. The operating system is a generalised database management computer system. It provides multiple users with the capability to update instantly and to retrieve information stored in on-line data files (Pick systems 1988, pp.1-3). As far as the study was concerned, three data files were particularly useful:

1. Reader data described above are mainly stored in a file called READER. The records are arranged by Reader code.

2. Book data are stored in the files called MAIN.CAT and ACCESSION. In this study, the file MAIN.CAT was used. The records are arranged by Accession number.

3. Recording the loans, an important file called CIRC.HISTORY stores the loan data from circulation. The records are arranged by Accession number.

It must be borne in mind that the essential aspect of the data was that only the data of those readers who had actually borrowed books were required. Similarly, only the data of those books borrowed were needed. Because of this requirement, the reader data in the READER file had to be selected by matching with the reader code in the CIRC.HISTORY file. Likewise, the book data in the MAIN.CAT file had to be retrieved by matching with the accession number in the CIRC.HISTORY file. To make it possible, the procedures were rather complicated. Actually, it took a whole dissertation work to explain them in detail (Kiley 1989). For the purpose here, it is sufficient to say that a new item had to be created in the Dictionary of CIRC.HISTORY for each field to be linked, e.g. author from MAIN.CAT; reader status from READER, etc.

To put it in simple terms, several characters, numbers and codes had to be put in the right places of the new item. As a result, these inputs could then instruct the computer to look in the right places for the required data. Putting in a wrong code, or misplacing it, may cause failure.

The retrieval of computer records has been deliberately explained in rather great detail. It is intended here to point out that the complicated procedures and frequent failure may pose a serious barrier, or at least, frustration, to librarians, who might otherwise find this device

very useful to their work. Of course, once the necessary files are set up, it is not difficult to generate data in the future.

For this study, the procedures of retrieving data were tried out in the Department of Information and Library Studies, using the test data already stored in the computer. After trial and error, samples of data listed in the required formats were finally printed out. However, success did not last long. When the experiment was put to test in the real-life situation in Sandwell Libraries, surprises and challenges were lying in wait.

BookshelF in Sandwell Libraries

Sandwell Community Libraries have gone on-line for more than a year, with 6 libraries being networked. Therefore, the data of these libraries could be obtained through a terminal in one of the networked libraries. In this study, the access to computer records was made in Smethwick Library.

Upon arrival, it was discovered that the operating system of the BookshelF in Sandwell Libraries is actually AIX Operating System version 3.2. It works with a different set of commands from the Pick Operating System used in the BookshelF in the Loughborough University department. Fortunately, for all the diversities, basic commands like SORT, LIST could still be used. The situation was summarised in the table:

Figure 1 : Problems encountered in data collection

Succeeded

1. Display of loan data in CIRC.HISTORY: Reader Code, Date, ISBN, Class

2. Display of reader data in CIRC.HISTORY: Reader Code, Status

Problems

3. Failed to create dictionary synonyms of Author, Title in CIRC.HISTORY to retrieve these data from MAIN.CAT.

Finally, a different strategy was decided. There were three stages. First, new items were actually copied from MAIN.CAT into CIRC.HISTORY, only changing certain key elements. As a result, book data of author and title could be accessed together with loan

data. Then, the second stage was to select a random sample of readers from the READER file. At the same time, other reader data of the sample readers could also be listed. With the reader codes of the sample, the final stage was to search CIRC.HISTORY with new commands (Appendix 4). Once the loan data were retrieved, other book data could also be listed.

The book data were grouped by reader codes in ascending order. The computer records were printed out in this format: (An example page of print out is shown in Appendix 5)

Figure 2 : The layout of a computer record

CIRC.HISTORY						
Accession no.	Reader Code	Loan Date	ISBN	Class	Author(s)	Title

At last, the computer records should have been ready for analysis. However, it was found that for some books, the codes for fiction categories were missing. They were not available in the database. In order to complete the data, fiction categories had to be determined from other sources, which should result in categories consistent with those used in Sandwell Libraries. Much time was spent comparing different sources and searching for individual authors and titles.

BookshelF in Hounslow Libraries

Hounslow libraries have been computerised with BookshelF system since march, 1993. The BookshelF system used in Hounslow operates on Unix. The data files needed for this study are contained in the CIRC.HISTORY file, so retrieval of data became much easier. In Hounslow libraries, computer records were extracted from CIRC.HISTORY by an expert staff. The commands used are listed in Appendix 6. The format and the data listed in the computer records were the same as those from Sandwell libraries (Appendix 7).

Fiction Categories

It was found that in both Sandwell and Hounslow Libraries, the class mark of fiction categories were left out for some fiction books. It was decided that the data should be completed for later analysis. Therefore, fiction categories for these books were determined from other sources. Three sources were used. Some books could be categorised from one source only; for others, it was necessary to consult two or three.

CD-ROM Bookbank classifies fiction in 8 categories: General, Mystery, Historical, Romance, Science Fiction, Short Stories, War and Western.

Roy Huse (1993) compiled *Who else writes like? A readers' Guide to fiction authors* which contains 14 fiction categories. They are : Adventure, Crime (including Mysteries and Thrillers), Family Stories, Fantasy, General, Historical, Humour, Romance, Science Fiction, Sea, The 'Smart Set', Supernatural and the Unknown, War Stories and Western.

Adult Fiction paperback:January 1994 published by Books For Students Ltd. (1994) lists 13 fiction categories: Fantasy, Film Tie-in, Ghost/Horror, Historical, Historical Romance, Mystery/Crime, Light Romance, Family Sage, Science Fiction, TV Tie-ins, Western, War and Thriller.

Table 3 A comparison of adult fiction categories from different sources

SANDWELL	BOOKBANK	READER GUIDE	AF PAPERBACK
Adult Fiction	General Romance War	Family Saga Family Saga Adventure Smart Set	Family Saga Family Saga Thriller
Adventure/Thriller	Mystery General	Adventure Adventure	Thriller Thriller
Crime	Mystery/Crime	Crime	Mystery/Crime
Family Saga	General General	Family Saga Historical	Family Saga Family Saga
Fantasy	Science Fiction Science Fiction	Fantasy Fantasy	Fantasy Science Fiction
Historical	Historical	Historical	Historical / Historical Romance
Science Fiction	Science Fiction	Science Fiction	Science Fiction
Horror	General Mystery Science Fiction	Fantasy Supernatural Science Fiction	Ghost/Horror Ghost/Horror Ghost/Horror
Short Stories	Short Stories		
War	Historical War General	Sea Sea Sea	War War War
Western	Western	Western	Western
Romance	Romance	Romance	Romance

Using one or more of these sources, the missing fiction categories could be determined and the data completed. Then the data were put into the computer for analysis, using the software package Excel.

Non-fiction Categories

Dewey Decimal Numbers were available data. As explained later in Chapter 5 Section IX, the data were arranged into 34 categories (Appendix 2).

CHAPTER 5   DATA ANALYSIS : BORROWERS IN SANDWELL AND HOUNSLOW LIBRARIES

-- SANDWELL --

Since making one search of CIRC.HISTORY took almost two and a half hours, data were collected at random and in blocks. First, the computer selected a sample of reader codes. Then the reader codes were keyed into the computer in blocks of 100, 200 and 300 consecutive numbers at a time. In total, 700 reader codes were input into the computer to search for the loan records in the circulation database. The loan records included a number of teachers, which were later excluded from this study as being unrepresentative.

After organising the data, it was found that among the 700 registered library members, only 317 of them had borrowed at least one item (book or non-book) in the past year. This gap between the number of registered members and the number of actual borrowers called for investigation. Some people might indeed have visited the library, e.g. reading newspapers, making use of the reference books, or using the information service - these in-house activities being unrecorded. For others, their non-use could be due to a number of personal reasons. Library managers suggested many of the non-borrowers might be using other non-computerised service points.

It may well be due to the fact that, after some libraries have gone live, a number of readers applied for the plastic computer library cards. So their names appeared in the reader file in the computer while they continued to use the traditional library tickets to borrow books from the non-computerised libraries. On the other hand, this result may suggest that about half of the registered library members were actually inactive borrowers. If the number of registered members is to be taken as a library performance indicator, the above figure shows that there can be problems.

Book borrowing was generally the most common reason for library use. The Library User Survey conducted in Sandwell Community Libraries (Sandwell Community Library Service 1993, p. 17) confirmed that 89.4% of all survey respondents cited book borrowing as the reason for library use. This points to a critical area where librarians can work to hold the appeal of the libraries for library users. Suppose library users have come to the library to borrow books, the inevitable question to ask is: Can they find what they want to borrow on the shelves?

It was interesting to note that in the Library User Survey (Sandwell Community Library Service 1993), survey respondents held conflicting views on the choice of books. 95% of respondents said they particularly liked the range/choice of books. However, range/choice of books was ranked highest amongst the list of areas for improvement (14.1%). It is obvious that different people have different reading interests. Naturally, they have different demands and expectations of the library stock.

In Hounslow libraries, the sampling method was different. Instead of keying in several blocks of consecutive numbers, the loan records of all reader numbers ending in a randomly chosen number ('25') were retrieved. In this way, every hundredth record was examined. The whole CIRC.HISTORY file was searched, and 30,706 loan records were retrieved. In practice, unrepresentative records were excluded from this study, e.g. housebound records, loans by library and staff, loans for projects and groups. From 1,227 reader records accessed, excluding 12 unrepresentative records and readers with no loans, 951 readers were valid for analysis. The loan records covered a period from 3rd March, 1993 to 6th July, 1994, which amounted to 16 full months, or one and a third years.

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Statistical Accuracy

Percentage proportional estimates from the Hounslow sample will be accurate to $\pm$ 3 per cent at the 95 per cent confidence level. They are more representative because all service points were computerised.

The Sandwell sample is smaller and omits the large West Bromwich central library. The selection method was inferior to that subsequently used at Hounslow, and some bias may have resulted through using blocks of numbers. The sampling error is therefore at least double that of Hounslow. However, to establish main trends and features, both samples are large enough to be valuable.

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In the sections that follow, there will be analyses on Sandwell and Hounslow data, together with their comparison. For ease of reading, Sandwell data will be put in single-lined tables, whereas Hounslow data will be put in double-lined tables, and the text will be italicized.

I THE SAMPLE

I. BORROWER SEX

-- SANDWELL --

Table 4 Sandwell: The sex ratio in the sample

Sex	Proportion of borrowers %	No. of borrowers
M	27	86
F	45	143
CD	23	72
No data	5	16
All %	100	317

In the sample, the sexes of borrowers were broken down into male, female, child and no data. The sexes of child borrowers were not specified when their personal particulars were entered into the computer. Sex details were missing for some borrowers, amounting to 5% of the sample. Indeed, data about the sexes and the ages of the borrowers were not complete in the database. Therefore, throughout the dissertation, there was a row or a column of "no data" in the tables. Fortunately, the figures were comparatively small, and they did not affect the overall patterns.

As anticipated, females were the main borrowers. The number of adult female borrowers (45%) almost doubled the number of male borrowers (27%). This result exaggerates the feature of traditional user studies. A point to be noted was that children accounted for almost one-fourth of borrowers. The presence of a large number of child borrowers may be due to the fact that attention had been given to attract this group of library

users. For example, special programmes for under fives had been developed (Gill, 1991, p.64).

Table 5 Sandwell: A comparison of the sex ratio

	Male %	Female %
1991 Census	48.6	51.4
1993 Sandwell Survey	41.5	57.1
Users Computer File	40.8	59.2
This study	38	62

The sex analysis shows library use by females to be substantially above average (census) (HMSO 1993a, p.53) in all three counts. The selection of users for this study is 3 percentage points higher than would be expected from the computer file. This will be due either to statistical sampling error or to higher borrowing activity by females among registered users.

....

-- HOUNSLOW --

Table 6 Hounslow: The sex ratio in the sample

Sex	Proportion of borrowers %	No. of borrowers
M	33	318
F	42	402
CD	15	140
No data	10	91
All	100	951

The sex composition of the Hounslow sample is more in line with the feature of traditional user studies. Females remain the largest group of borrowers (42%), but they were only a little more than males (33%).

Compared with Sandwell sample, Hounslow sample has more males (33% against 27%), but fewer child borrowers (15% against 23%). The figure of "no data" is surprisingly large (10%).

Table 7 Hounslow: A comparison of sex ratio

	Male %	Female %	Total %
1991 Census	49	51	100
This study	44	56	100

The sex analysis shows that the sample has got fewer males but more females by 5% than their proportions at Hounslow in the census (HMSO 1993b, p.21).

II. BORROWER AGE

-- SANDWELL --

Table 8 Sandwell: The age ratio in the sample

Age	Proportion of borrowers %	No. of borrowers
1-13	23	72
14-17	3	11
18-59	39	123
60+	31	98
No data	4	13
All	100	317

Not surprisingly, the largest proportion of borrowers were adults aged 18-59 (39%). Meanwhile, the elderly aged 60 or above accounted for a significant one-third of the total sample borrowers. This figure shed light on the importance of the elderly as a user group. They deserve a lot of attention from library mangers, having plenty of leisure time to spend in the libraries. Teenagers aged 14-17 accounted for only 3% of the sample.

Table 9 Sandwell: A comparison of the age ratio

Age	1991 Census	Age	Users Computer file	Age	This study
0-14	19.4			0-13	23
15-17	3.8	14-17	10.9	14-17	3
18-19	54.6	18-59	65.8	18-59	39
60+	22.2	60+	23.3	60+	31
				No data	4
All	100	All	100	All	100

A similar analysis by age is complicated because there is inconsistency in the age brackets. Teenagers in the sample are roughly equal to census proportion. However, there is a very large proportion of elderly borrowers - and a distinct possibility that sampling error may account for much of this.

-- HOUNSLOW --

Table 10 Hounslow: The age ratio in the sample

Age	Proportion of borrowers %	No. of borrowers
1-12	15	140
13-17	10	95
18-59	53	499
60+	12	118
No data	10	99
All	100	951

The age entries for borrowers in Hounslow libraries were different from Sandwell libraries (see table 10).

Similar to Sandwell, adult borrowers were still the largest group (53%), which was a lot more than that in Sandwell (39%). Teenagers amounted to 10% in the Hounslow sample. The elderly only accounted for 12% of the sample, which was a lot less than that in the Sandwell sample (31%)

Table 11 Hounslow: A comparison of the age ratio

Age	1991 Census %	Age	This study %
0-15	20	0-12	15
16-17	2	13-17	10
18 to pensionable age	62	18-59	53
pensionable age +	16	60+	12
		No data	10
All	100	All	100

The inconsistency in the age bracket here is even greater. Generally speaking, the children's and teenager's proportions in the sample are larger than their proportions in the census (HMSO 1933b, pp.22-23), whereas the adults' and the elderly's proportions are smaller than those in the census.

II HOW MANY BOOKS PEOPLE BORROW

I. BORROWER GROUPS

-- SANDWELL --

In the sample, the largest number of issues to one person was 242 in the past year. This borrower obviously was a VERY heavy borrower. As mentioned earlier, library users were not a homogeneous group. Different people have different demands on library stock. Besides bearing different demographic characteristics, they use the libraries in varying degrees. This range of library usage could best be reflected by the total number of items they borrowed throughout the year. The chart (Figure 3) shows the total loans of individual borrowers. Non-books are included.

According to the total number of items borrowed in the past year, the sample borrowers were classified into light, average and heavy borrowers. The scatter-gram (Figure 4) shows the total loans of individual borrowers. In this analysis, light borrowers were defined as those who borrowed 10 items or less. Average borrowers were those who borrowed 11 to 45 items. Heavy borrowers were those who borrowed 46 items or above. These parameters seemed from the data to be reasonable and not far removed from average borrowings of once a week and once a month.

Table 12 Sandwell: Different borrower groups in the sample

	Light borrowers %	Average borrowers %	Heavy borrowers %	All %
No. of borrowers	30	45	25	100

Figure 3   Sandwell: Loans of Borrowers   36

Loans of Borrowers in Sandwell Libraries

Figure 4   Sandwell: Total Loans of Individual Borrowers   37

Total Loans of Individual Borrowers in Sandwell Libraries

With these definitions, average borrowers constituted 45% of the sample. Light borrowers accounted for 30% and heavy borrowers accounted for 25%.

....

-- HOUNSLOW --

The largest number of issues to one person was 262 in the past one and a third years. The degree of library usage was different from Sandwell. The chart (Figure 5) shows the total loans of individual borrowers, including non-books. As seen from the chart, the number of loans was a bit lower than Sandwell.

The sample borrowers in Hounslow libraries were also classified into light, average and heavy borrowers. To make the data comparable to Sandwell data, the loan period of one and a third year was taken into consideration. Since the loan period covered in Hounslow sample was one third more than that in Sandwell sample, one third of the loans used in the definition of borrower groups in Sandwell sample was added to each borrower group in Hounslow. As a result, in Hounslow sample, light borrowers were defined as those who borrowed 13 items or less, average borrowers were those who borrowed 14 to 60 items, and heavy borrowers were those who borrowed 61 or above (see Figure 6).

Figure 5   Hounslow: Loans of Borrowers   39

Loans of Borrowers in Hounslow Libraries

Number of loans in one and a third year   (Sample: 951)

Figure 6 Hounslow: Total Loans of Individual Borrowers   40

Total Loans of Individual Borrowers in Hounslow Libraries

Table 13 Hounslow: Different borrower groups in the sample

	Light borrowers %	Average borrowers %	Heavy borrowers %	All %
No. of borrowers	57	35	8	100

The proportion of borrowers in each group was drastically different from Sandwell. Hounslow sample got more than half (57%) of the sample borrowers in the light borrower group, as against 30% in Sandwell sample. There were only 8% of borrowers in the heavy borrower group, as against 25% in Sandwell. This suggests that the sample borrowers in Hounslow had a relatively lower number of loans than Sandwell.

CIPFA figures show loans per head of population at 9.0 for Sandwell and 11.1 for Hounslow (CIPFA 1994, p.21). It is likely, since Hounslow average loans per borrower in the sample are so much lower, that a much higher proportion of the population borrow from the Hounslow Libraries than at Sandwell.

II. BORROWER SEX

-- SANDWELL --

Table 14 Sandwell: Different borrower groups in terms of sex

Sex	Light borrowers %	Average borrowers %	Heavy borrowers %	All %
M	31	25	27	27
F	44	42	51	45
CD	20	27	18	23
No data	5	6	4	5
All	100	100	100	100

The sex ratio, and the adult-children ratio among light, average and heavy borrowers were fairly consistent with the overall ratios in the sample. Nevertheless, there was a slight increase of males as light borrowers, with 31% against 27% in the sample. On the other hand, more females tended to be heavy borrowers, with 51% against 45% in the sample. In other words, there were more female borrowers who borrowed books, and they were likely to borrow quite a lot.

....

-- HOUNSLOW --

Table 15 Hounslow: Different borrower groups in terms of sex

Sex	Light borrowers %	Average borrowers %	Heavy borrowers %	All %
M	35	32	30	33
F	40	42	56	42
CD	13	19	9	15
No data	12	7	5	10
All	100	100	100	100

As at Sandwell, more females tended to be heavy borrowers, with 56% against 42% in the sample. It was more remarkable in Hounslow where there was a higher percentage of females in the heavy borrower group than in Sandwell, with 56% against 51%.

III. BORROWER AGE

-- SANDWELL --

Table 16 Sandwell: Different borrower groups in terms of age

Age	Light borrowers %	Average borrowers %	Heavy borrowers %	All %
1-13	20	27	18	23
14-17	5	4	0	3
18-59	53	39	22	39
60+	17	25	59	31
No data	5	5	1	4
All	100	100	100	100

In the text, 14-17 are referred to as teenagers, 18-59 as adults and 60+ as elderly. The age groups in Hounslow sample are treated similarly.

When the data were analysed in terms of age, more interesting features emerged. Teenagers accounted for only 3% of the borrowers, and none of them was heavy borrowers. Adults aged 18-59 were predominantly light borrowers (53%). Particularly noticeable was the elderly group. They tended to be heavy borrowers, accounting for an overwhelming 59% of all heavy borrowers. This figure almost doubled their ratio (31%) in the sample.

Further analysis of the number of issues to these two groups produced other evidence of the heavy usage of the libraries by the elderly: The average loans of adults aged 18-59 : mean 24, median 14, mode 2. The average loans of elderly 60+ : mean 49, median 40.5, mode 52. As seen from these figures, an average adult generally borrowed about 14 books a year, whereas the average elderly borrowed 40 to 50 books a year.

The difference was visually evident when the loans of these two groups were plotted onto a chart (Figure 7). Indeed, previous studies found that the elderly constituted a larger proportion among regular borrowers. This study added the fact that they were also a significant group of library patrons in terms of the number of loans they made.

Figure 7   Sandwell: Loans of adults and the elderly borrowers   45

Loans of adults and the elderly borrowers in Sandwell Libraries

-- HOUNSLOW --

Table 17 Hounslow: Different borrower groups in terms of age

Age	Light borrowers %	Average borrowers %	Heavy borrowers %	All %
1-12	13	19	9	15
13-17	10	11	10	10
18-59	56	50	40	53
60+	8	13	37	12
No data	13	7	4	10
All	100	100	100	100

In terms of borrower age, there were two features in the Hounslow sample which were different from the Sandwell sample. First, the figures for adults in the 3 borrower groups (56%, 50%, 40%) were more consistent with their ratio in the sample (53%). In Sandwell, 53% of adults were found in light borrower group, as against 39% in the sample. Secondly, as shown in Figure 8, the elderly in Hounslow were predominantly heavy borrowers, with 37% against 12% in all. It was similar to Sandwell (59% against 31%), but it was more remarkable in Hounslow as the figure is 3 times the ratio of the overall sample.

Comparing the number of loans of the adults and the elderly: The average loan of adults aged 18-59 - mean 19, median 9, mode 3; the average loan of the elderly - mean 40, median 26, mode 2. As seen from these figures, an average adult generally borrowed 10 to 20 books in one and a third years, whereas the elderly borrowed 20 to 40 books.

Figure 8 Hounslow: Loans of adults and the elderly borrowers   47

Loans of adults and the elderly borrowers in Hounslow Libraries

To summarise, males tended to be light borrowers whereas females tended to be heavy borrowers. In terms of age, adults were likely to be light borrowers in Sandwell, but not in Hounslow. Hounslow adults had an almost equal proportion in all three borrower groups. The elderly were likely to be heavy borrowers in both libraries.

> ### III MATERIAL CATEGORIES BORROWED (FICTION, NON-FICTION, ETC.)

I. COMPARISON OF ISSUES

So far in pervious tables, the sex and age factors of the borrowers have been analysed. What items did these borrowers check out of the libraries? What were the most popular items? Classifying the library stock broadly into adult fiction, adult non-fiction, non-books and children's books, the number of issues in each category is illustrated in the table below.

Table 18   Issues in terms of loan item categories: a comparison

No. of Issues	Adult Fiction %	Adult Non-fiction %	Non-books %	Children's books %	All %
Sandwell this study	61	13	6	20	100
Sandwell CIPFA	55	16	5	24	100
Hounslow this study	34	28	14	24	100
Hounslow CIPFA	40	29	10	21	100
U.K.	53	23	5	19	100

The figure for adult fiction in Sandwell sample was a little higher than the figure published in CIPFA 1992/93 Actuals (CIPFA 1994), with 61% against 55%. These two figures were also a little higher than the national figure in UK (53%). Conversely, the figure of non-fiction in Sandwell sample (13%) was a little lower than that in CIPFA (16%), which was a lot lower than the national figure (23%). This suggests that Sandwell borrowers borrowed a lot more fiction, and less non-fiction than the borrowers in the UK as a whole.

If Sandwell libraries are not typical, Hounslow libraries are even less typical. The adult fiction loans in the Hounslow sample (34%) was lower than the figure (40%) published in CIPFA. These two figures were a lot lower than the national figure (53%). For non-fiction, the figure in this study (28%) was similar to that by CIPFA (29%), but a lot more than the national figure (23%). For non-book loans, the figure in this study (14%) and by CIPFA (10%) were much higher than the national figure (5%). This suggests that Hounslow library borrowers borrow much less adult fiction, more non-fiction and more non-book materials than average UK borrowers.

Overall, this study has exaggerated the differences of the Sandwell and Hounslow libraries with a typical UK library. Checks against CIPFA statistics point to considerable sampling error. The Hounslow results for adult fiction and non-books are beyond the limits discussed at the beginning of Chapter 5.

II. BORROWER GROUPS

-- SANDWELL --

Table 19 Sandwell: Proportion of Heavy/Light borrowers for different loan item categories

Loan item categories	Light borrowers %	Average borrowers %	Heavy borrowers %	All %
Adult Fiction	27	29	43	32
Adult Non-fiction	40	28	23	30
Non-book	13	11	12	12
Children's Fiction	13	20	12	16
Children's Non-fiction	7	12	10	10
All	100	100	100	100

In the table, different borrower groups were cross tabulated with the loan item categories. Instead of looking at the categories in terms of issues, the focus here was placed on the borrowers. How many borrowers were responsible for the issue of each category? How did the borrower groups appear when it came to borrowing in categories?

The number of borrowers here was counted in light of their borrowings in each category. For a person who borrowed adult fiction, he would be counted as 1 borrower in terms of adult fiction loans. If he also borrowed adult non-fiction, then he would be counted as 1 borrower in terms of adult non-fiction loans. Therefore, the figures in the table were not restricted to single category borrowers.

As the result showed, the number of borrowers taking out adult fiction accounted for 32% of all borrowers, while that of adult non-fiction was 30%. In other words, nearly one third of borrowers borrowed adult fiction, and only a little less than one third borrowed adult non-fiction. These two figures were strikingly close. They stood in contrast to the marked difference between the number of issues of adult fiction (61%) and adult non-fiction (13%) in Table 18. Why?

The explanation may lie in the borrowing patterns of the various borrower groups. Among light borrowers, 40% of them borrowed adult non-fiction while only 27% borrowed adult fiction. This borrowing pattern was completely reversed for heavy borrowers. 43% of the heavy borrowers borrowed adult fiction in contrast to 23% who borrowed adult non-fiction. Therefore, when considering both light borrowers and heavy borrowers together, the number of borrowers taking out adult fiction and adult non-fiction were similar. In this respect, average borrowers had little influence on the outcome. However, when it came to the number of issues, it was the heavy borrowers who made the difference. They borrowed a lot more than light borrowers. More importantly, they tended to borrow more adult fiction than adult non-fiction. As a result, the number of issues of adult fiction was much higher than adult non-fiction.

As for children's fiction and children's non-fiction, the number of borrowers amounted to 16% and 10% respectively. Generally speaking, more borrowers took out children's fiction than children's non-fiction in all three borrower groups. However, it was interesting to note that, contrary to the borrowing pattern of adult books, the light borrowers borrowed more children's fiction (13%) than children's non-fiction (7%). Among heavy borrowers, the difference between the number of borrowers borrowing children fiction (12%) and children non-fiction (10%) was far less marked than between adult fiction (43%) and adult non-fiction (23%).

-- HOUNSLOW --

Table 20 Hounslow: Proportion of Heavy/Light borrowers for different loan item categories

Loan item categories	Light borrowers %	Average borrowers %	Heavy borrowers %	All %
Adult Fiction	16	20	30	20
Adult Non-fiction	42	30	27	35
Non-book	16	18	19	17
Children's Fiction	14	17	14	15
Children's Non-fiction	12	15	10	13
All	100	100	100	100

The Hounslow sample presents a different picture with regard to the number of borrowers taking out loan items. In all, there were more people borrowing adult non-fiction (35%) than borrowing adult fiction (20%), which was a great departure from Sandwell

(NF:30%; AF:32%). The number of borrowers borrowing non-book materials in Hounslow was also higher than in Sandwell, with 17% against 12%.

As at Sandwell, more light borrowers (42%) borrowed adult non-fiction, and more heavy borrowers (30%) borrowed adult fiction. However, as heavy borrowers only accounted for 8% (Table 13) in the sample, the overall proportion of borrowers borrowing adult fiction (20%) was still relatively lower than that of non-fiction (35%).

III. BORROWER SEX

-- SANDWELL --

Table 21 Sandwell: Proportion of borrowers for different loan item categories, analysed by sex

Loan item categories	M	F	CD	No data	All
	%	%	%	%	%
Adult fiction	38	47	5	25	32
Adult non-fiction	44	36	6	28	30
Non-book	14	9	12	17	12
Children's fiction	3	6	43	22	16
Children's non-fiction	1	2	34	8	10
All	100	100	100	100	100

In the table, the loan item categories were tabulated by sex of borrowers. As anticipated, males tended to borrow more adult non-fiction (44%) than adult fiction (38%). In contrast, females showed more interests in adult fiction (47%) than adult non-fiction (36%). Equally not surprising was that children were more likely to borrow more children's fiction (43%) than children's non-fiction (34%). Notice that child borrowers presented a curious

situation. They borrowed some adult books in addition to children books. A mixture of material types appeared in the children's loan records.

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-- HOUNSLOW --

Table 22 Hounslow: Proportion of borrowers for different loan item categories, analysed by sex

Loan item categories	M %	F %	CD %	No data %	All %
Adult fiction	20	25	3	20	20
Adult non-fiction	43	37	14	34	35
Non-book	22	17	11	13	17
Children's fiction	7	11	42	17	15
Children's non-fiction	8	10	30	16	13
All	100	100	100	100	100

As at Sandwell, more males borrowed adult non-fiction (43%). However, female borrowers in Hounslow behaved differently from their counterparts in Sandwell. In Sandwell, more females borrowed adult fiction (47%) than non-fiction (36%). In Hounslow, more females borrowed adult non-fiction (37%) than adult fiction (25%). This greater tendency of females to borrow adult non-fiction might explain why the number of non-fiction borrowers was high (Table 20), and the number of non-fiction loans was higher than the national figure (Table 18).

In both places, more males than females borrowed non-fiction and more females than males borrowed fiction - in very similar proportions.

IV. BORROWER AGE

-- SANDWELL --

Cross tabulation with the age of borrowers produced interesting results:

Table 23 Sandwell: Loan item categories in terms of number of borrowers, analysed by age

| Loan item categories | 1-13 | 14-17 | 18-59 | 60+ | No data | All |
	%	%	%	%	%	%
Adult fiction	5	17	36	55	38	32
Adult non-fiction	6	44	42	35	27	30
Non-book	12	13	13	9	14	12
Children's fiction	43	22	7	1	14	16
Children's non-fiction	34	4	2	0	7	10
All	100	100	100	100	100	100

There were more adults aged 18-59 borrowing adult non-fiction (42%) than adult fiction (36%). In contrast, a larger proportion of the elderly borrowed adult fiction (55%) than adult non-fiction (35%).

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-- HOUNSLOW --

Table 24 Hounslow: Loan item categories in terms of number of borrowers, analysed by age

| Loan item categories | 1-12 | 13-17 | 18-59 | 60+ | No data | All |
	%	%	%	%	%	%
Adult fiction	3	13	22	39	19	20
Adult non-fiction	14	30	42	38	35	35
Non-book	11	14	21	16	12	17
Children's fiction	42	21	8	4	17	15
Children's non-fiction	30	22	7	3	17	13
All	100	100	100	100	100	100

Same percentage of adults (42%) borrowed adult non-fiction in both libraries. However, adult borrowers in Hounslow borrowed less adult fiction (22%) but more non-book items (21%) than adult borrowers in Sandwell (AF:36; NBK:13%). The elderly borrowers also behaved differently from the elderly borrowers in Sandwell. Almost an equal proportion of the elderly borrowed adult fiction (39%) and adult non-fiction (38%). The number of elderly borrowers borrowing adult fiction (39%) was lower than that in Sandwell (55%). This might suggest another reason why the number of borrowers taking out adult fiction was lower in Hounslow than in Sandwell. It should also be noted that more elderly borrowed non-book items (16%) than those in Sandwell (9%).

To conclude this section, the analysis shows that Sandwell and Hounslow borrowers are very different borrowers in terms of their borrowing patterns. In Sandwell, adult fiction accounted for an overwhelming proportion of the total issues (61%), which was a lot more than non-fiction (13%). However, the number of borrowers borrowing adult fiction (32%) was similar to that of adult non-fiction (30%). This was because the adult fiction borrowers tended to borrow very large quantities whereas the adult non-fiction was more associated with a light borrowing rate.

In Hounslow, in terms of issues, the number of adult fiction and non-fiction loans were quite close, with the number of adult fiction loans (34%) a bit higher than non-fiction loans (28%) (table 18). However, in terms of the number of borrowers, the number of fiction borrowers (20%) was less than the number of non-fiction borrowers (35%) (table 20). Again, it was due to the fact that the non-fiction borrowers tended to be light borrowers.

In Sandwell, more males tended to borrow adult non-fiction, whereas more females tended to borrow adult fiction. Similarly, more adults were likely to borrow non-fiction, whereas more elderly were likely to borrow fiction. In Hounslow, females tended to borrow more non-fiction than fiction, and an equal proportion of elderly borrowed adult fiction and

non-fiction. More adults and elderly borrowed non-book materials in Hounslow than in Sandwell.

In both places, the elderly borrow much more fiction than the 18-59 adults (+53% and +77%). But they borrow appreciably less adult non-fiction (-17% and -10%) and non-book materials (-31% and -24%). (These percentages are calculated from tables 23 and 24 by taking the figure for elderly divided by the figure for adults.)

IV BORROWING FICTION, NON-FICTION, OR BOTH

I. LARGEST NUMBER OF ISSUES BY INDIVIDUALS

-- SANDWELL --

The largest number of adult fiction borrowed in a year by an individual in the sample was 241. The second largest borrowing in fiction was 226. These record makers deserve some further attention as one might be curious about what they actually borrowed. More significantly, they illustrated that although they were unmistakably heavy fiction borrowers, individuals could differ drastically in borrowing patterns within the same category.

The champion was in fact an adult female. This lady borrowed 242 books in the past one year, among which 241 books were fiction. The remaining book was adult non-fiction on motorcycles. Not surprisingly, this lady's borrowing was almost exclusively romance. Out of the 241 fiction books, 240 books were romance; the remaining one was classed as general fiction. However, among the fiction books she borrowed, there were 176 different authors. This figure was impressive.

Completely different from the top scoring lady, the runner-up turned out to be male elderly. In the past one year, this man borrowed 227 items, out of which 226 were fiction books: the remaining one was a light music cassette. By stark contrast to the lady, among the 226 fiction books, there were altogether 12 fiction categories, including general fiction, adventure/thriller, crime, historical, horror, war, fantasy, science fiction, short stories, western, family saga and also romance. Remarkably, he borrowed in all the fiction categories, except books in Asian languages.

His favourite category by far was crime, amounting to 100 books, or 44% of all his loans. More remarkable was the number of fiction authors he borrowed. Out of 226 fiction books he borrowed, there were 202 different authors. Impressive as this was, it may be only natural that with his borrowings spread over so many categories, it was difficult for him to concentrate on selected authors.

Turning to adult non-fiction, the top scoring borrower in non-fiction in the sample had 52 loans. Compared with the greatest number of fiction loans, which was 241, this figure of non-fiction loans was relatively small.

This heavy borrower of adult non-fiction was an adult female. In total, she borrowed 62 books in the past one year. Among these books, 10 were fiction and 52 were non-fiction. Within fiction, she borrowed only one type of book - romance. For non-fiction, on the contrary, her borrowing was more diverse. Out of 52 non-fiction books, she borrowed in 16 categories. They ranged from food, animals, arts, to history, crime and politics, etc. Her favourite non-fiction category was mystery and the unknown, followed by medical science, and family & health. (There is, of course, the possibility that she was borrowing some books for others in the household.)

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-- HOUNSLOW --

The largest number of adult fiction borrowed in one and a third years by an individual in the sample was 258. This individual was male elderly. He borrowed 262 books, among which 258 books were fiction. The remaining 4 books were non-fiction. This man had a more diverse interest in fiction than the top scoring lady in Sandwell. He read fiction books by 150 authors in 8 fiction categories. His favourite fiction category was crime fiction.

The top scoring non-fiction borrower was also male elderly. In total, he borrowed 80 books, among which, 2 were fiction and 78 were non-fiction. He borrowed in 11 non-fiction categories. His favourite non-fiction category was travel.

II. BORROWER GROUPS

-- SANDWELL --

Coming back from individual to the overall picture, focus here was placed on the loans of adult fiction and non-fiction. Among their loans, how many borrowers borrowed only adult fiction, how many borrowed only adult non-fiction, and how many borrowed both? The table below tackles this question.

Table 25 Sandwell: Adult fiction and non-fiction loans in terms of borrower groups

Adult books	Light Borrowers %	Average Borrowers %	Heavy Borrowers %	All %
Only Adult Fiction	9	9	13	31
Only Adult Non-fiction	15	6	0	21
Both	6	26	16	48
All	30	41	29	100

These figures show that 48% of borrowers borrowed both fiction and non-fiction. Nearly one-third (31%) borrowed only fiction. About one-fifth (21%) borrowed only non-fiction. Further break down by different borrower groups showed that more light borrowers

borrowed only non-fiction, which accounted for 15% in total. Average borrowers were more likely to borrow both categories (26%). Heavy borrowers borrowed either adult fiction only, or both. None of them borrowed only non-fiction.

Up to now, the figures seemed to fall into places in the table and were well explained. However, the description of the champion fiction borrower in the last section showed the need for a more refined approach. The top scoring lady who borrowed 241 fiction books, also actually borrowed 1 non-fiction book. In table 25, then, she was classified as a borrower borrowing in both fiction and non-fiction categories. Nevertheless, comparing the overwhelming number of fiction loans (241 books) with the number of non-fiction loans (1 book), was it not more logical to regard her as a borrower of fiction only? It was. Indeed, several borrowers seemed to have concentrated on reading fiction all the time, but then, on several occasions, they untypically picked up one or two non-fiction books and checked them out.

Taking this subtle element into consideration, the data were re-organised in the following way: when the number of fiction loans was 90% or above of the total loans, then the borrowers would be classified as borrowing mainly fiction. The same applied to non-fiction borrowers. In other terms, if the borrowers borrowed a vast majority of books in one category (90%+), they would be considered to be borrower mainly of that category. For borrowers regarded as borrowing both fiction and non-fiction, they were people whose loans of fiction and non-fiction were less than 90% of the total loans. Consequently, a more realistic picture emerged in the following table:

Table 26 Sandwell: Adult fiction and non-fiction loans in terms of borrower groups:

a refined approach

Adult books	Light Borrowers %	Average Borrowers %	Heavy Borrowers %	All %
Mainly Adult Fiction	9	16	22	47
Mainly Adult Non-fiction	15	7	0	22
Both	6	18	7	31
All	30	41	29	100

In total, the highest percentage of borrowers now shifted to the mainly fiction category. Far more borrowers borrowed mainly fiction, accounting for nearly half of the borrowers (47%). The percentage of number of borrowers borrowing in both categories dropped from 48% to 31%. As the effect of the new approach, 16% of borrowers were actually re-classified as borrowers of mainly fiction, and 1% as borrowers of mainly non-fiction. Subsequently, there were now a lot more people who borrowed mainly fiction (47%) than mainly non-fiction (22%). Meanwhile, people borrowing both fiction and non-fiction accounted for less than one third of all borrowers.

However, this new approach had little influence on the light borrowers' borrowing patterns. There were still more light borrowers borrowing mainly non-fiction (15%) than mainly fiction (9%). Almost the same proportions of average borrowers borrowed mainly fiction and in both categories (16% and 18% respectively). Among heavy borrowers, a majority of them borrowed mainly fiction, which accounted for about one-fourth of all borrowers. Very few of them (7%) borrowed in both categories.

The last point to make was about the number of heavy borrowers borrowing mainly non-fiction. The figure was again "0%". However, according to the new approach, there was actually one heavy borrower in the category of mainly non-fiction. His lo.ns numbered 47, but he only accounted for 0.3% of the total, so his result was rounded out.

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-- HOUNSLOW --

Table 27 Hounslow: Adult fiction and non-fiction loans in terms of borrower groups:

a refined approach

Adult books	Light Borrowers %	Average Borrowers %	Heavy Borrowers %	All %
Mainly Adult Fiction	7	7	5	19
Mainly Adult Non-fiction	32	5	0	37
Both	16	22	6	44
All	55	34	11	100

In the Hounslow sample, nearly half of the borrowers borrowed both fiction and non-fiction (44%), closely followed by mainly non-fiction (37%). Unlike Sandwell, more people borrowed mainly non-fiction (37%) than mainly fiction (19%).

More light borrowers borrowed mainly non-fiction and more average borrowers borrowed both fiction and non-fiction in both libraries. Heavy borrowers in Sandwell predominantly borrowed mainly fiction (22%). In Hounslow, half of the heavy borrowers borrowed mainly fiction and half borrowed both.

III. BORROWER SEX

-- SANDWELL --

Using the refined approach again, the number of borrowers were cross-tabulated with sex in the table below:

Table 28 Sandwell: Adult fiction and non-fiction loans in terms of borrower sex

Sex	Mainly Adult Fiction %	Mainly Adult Non-fiction %	Both %	All %
M	13	11	11	35
F	32	9	17	58
CD	0	1	2	3
No data	2	1	1	4
All	47	22	31	100

Females are seen to be the largest group of borrowers who borrowed mainly adult fiction. They accounted for 32% in all. This figure more than doubled the figure made by male borrowers (13%). Indeed, within the female group, more females tended to borrow mainly fiction (32%) than mainly non-fiction (9%) and in both categories (17%). Yet, it was interesting to note that against the main female borrowing patterns, there were still a number of female borrowers borrowing mainly non-fiction. They accounted for 9% of all borrowers, which was not negligible.

Among male borrowers, the number of borrowers who borrowed mainly fiction (13%) and mainly non-fiction (11%) did not differ as much as the female borrowers borrowing in these two categories.

Table 29 Hounslow: Adult fiction and non-fiction loans in terms of borrower sex

Sex	Mainly Adult Fiction %	Mainly Adult Non-fiction %	Both %	All %
M	6	16	15	37
F	11	15	25	51
CD	0	1	1	2
No data	2	5	3	10
All	19	37	44	100

Again, Hounslow presents a different picture. More males borrowed mainly non-fiction (16%), or both (15%), but fewer males borrowed mainly adult fiction (6%). Females in Sandwell and Hounslow libraries differed a lot in their borrowing patterns. In Sandwell, a majority of females borrowed mainly fiction (32%), and fewer females borrowed mainly non-fiction (9%). In Hounslow, however, a majority of females borrowed both fiction and non-fiction (25%), and fewer females borrowed mainly fiction (11%).

IV. BORROWER AGE

-- SANDWELL --

Table 30 Sandwell: Adult fiction and non-fiction loans in terms of borrower age

Age	Mainly Adult Fiction %	Mainly Adult Non-fiction %	Both %	All %
1-13	0	1	2	3
14-17	0	1	1	2
18-59	17	13	18	48
60+	27	6	8	41
No data	3	1	2	6
All	47	22	31	100

Among borrowers who borrowed mainly adult fiction, the elderly were the largest group of borrowers (27%). Indeed, the number of elderly borrowing mainly fiction (27%) was more than 4 times of those borrowing mainly non-fiction (6%), or more than 3 times of those borrowing in both categories (8%). Here, it was found that the borrowing patterns of the elderly were similar to the female borrowers. Both of them were heavy fiction borrowers, with a majority borrowing mainly fiction.

Adult borrowers aged 18-59 demonstrate diversity. More than one third of them borrowed mainly fiction (17%) and another one third borrowed both (18%). Less than one third borrowed mainly non-fiction (13%). This division of the adult borrower group into 3 sub-groups suggested that they had distinctive reading tastes among themselves. Hence, as a borrower group, they were less homogeneous in borrowing patterns than the female and the elderly borrowers.

Table 31 Hounslow: Adult fiction and non-fiction loans in terms of borrower age

Age	Mainly Adult Fiction	Mainly Adult Non-fiction	Both	All
	%	%	%	%
1-12	0	1	1	2
13-17	0	2	5	7
18-59	8	26	29	63
60+	8	3	6	17
No data	3	5	3	11
All	19	37	44	100

Adult and elderly borrowers in Hounslow behaved differently from their counterparts in Sandwell. In Hounslow, more adults borrowed mainly non-fiction (26%) and both (29%). But very few of them (8%) borrowed mainly fiction. This is different from Sandwell where there were three almost equal proportions of adults who borrowed mainly fiction, mainly non-fiction, and both.

The borrowing patterns of the elderly borrowers in Hounslow was similar to those in Sandwell, but it was less marked. There were more elderly borrowers borrowing mainly fiction in Sandwell and Hounslow libraries, but the difference between borrowing mainly fiction and other categories was not great in Hounslow.

To summarise this section, there were more borrowers, in particular heavy borrowers, who borrowed mainly fiction than mainly non-fiction in Sandwell. In Hounslow, no major groups particularly borrowed mainly fiction, but there were more light borrowers who

borrowed non-fiction (32%). In terms of sex and age, more females and more elderly borrowed mainly adult fiction in Sandwell. In contrast, more males, females and adult borrowers borrowed mainly non-fiction and both categories in Hounslow.

In both places, there were many borrowers who mixed fiction and non-fiction (31% and 44%). This mixed borrowing was less marked among the teenagers and elderly than is the 18-59 group.

V. COMPARISON WITH BML RESULTS

Marketing Ltd. conducted a survey on the reading habits of public library users in Great Britain in 1993 (England 1994). In the questionnaires, respondents were asked whether they borrowed all and mainly fiction, all and mainly non-fiction, or equal quantities of both. Their results (England 1994, p.10) are listed in the table with the results from Sandwell and Hounslow samples in this study:

Table 32 No. of borrowers borrowing mainly fiction and mainly non-fiction among

BML, Sandwell and Hounslow libraries

No. of borrowers	BML 1993	Sandwell 1993/4	Hounslow 1993/4
	%	%	%
Mainly fiction	32	47	19
Mainly non-fiction	34	22	37
Both	33	31	44
All	99	100	100

In response to the questionnaires conducted by Book Marketing Ltd., about one third (32%) of the respondents said that they borrowed mainly (and all) fiction, and about one third (34%) borrowed mainly (and all) non-fiction. Another one third (33%) borrowed both.

From the computer data collected in Sandwell Libraries, more borrowers (47%) borrowed mainly fiction, whereas in Hounslow, more borrowers (44%) borrowed both fiction and non-fiction. These two libraries differ a great deal in their borrowers' borrowing patterns because of their differences in library traditions and the communities they serve. Taking the average of these two libraries, however, the figures (F:33; NF:29.5; Both:37.5) came close to the BML results.

V CHILDREN'S

-- SANDWELL --

Table 33 Sandwell: Number of borrowers borrowing children's fiction and non-fiction

Children Book Categories	Number of borrowers %
Mainly Children's Fiction	30
Mainly Children's Non-fiction	4
Both	66
All	100

To continue with the refined approach where a vast majority of loans (90% and above) in a category would place the borrowers in that category, the results for children's books are listed in the above table. A large majority of borrowers (66%) borrowed both children's fiction and non-fiction. Less than one third (30%) borrowed mainly children's fiction. Unsurprisingly, borrowing mainly children's non-fiction was the interest of a minority group of borrowers (4%).

-- HOUNSLOW --

Table 34 Hounslow: Number of borrowers borrowing children's fiction and non-fiction

Children Book Categories	Number of borrowers %
Mainly Children's Fiction	28
Mainly Children's Non-fiction	8
Both	64
All	100

The proportions of borrowers borrowing in different children book categories in Hounslow were similar to those in Sandwell. Slightly fewer borrowers borrowed mainly children's fiction (28%) and both categories (64%) than in Sandwell. However, the number of borrowers borrowing children's non-fiction (8%) was higher than that of Sandwell (4%).

VI ADULT FICTION CATEGORIES

-- SANDWELL --

In this section, attention turns to the number of fiction categories borrowed by individuals. Sandwell community libraries class adult fiction into 12 categories, namely: adult fiction, adventure/thriller, romance, crime, horror, family sagas, fantasy, historical, science fiction, short stories, war and western.

There were two points which need explanation here. First, in addition to the books written in English, Sandwell libraries also offer books in Asian languages. Non-fiction books in Asian languages were classified according to Dewey Decimal Number. They presented no problems. However, adult fiction books in Asian languages were not classified at all. Therefore, for the purpose of this study, they have been treated as the thirteenth fiction category.

Secondly, one of the fiction categories named "adult fiction" actually referred to mainstream and classic fiction (Appendix 3). In order to avoid confusion with "adult fiction", which meant all adult fiction books, the mainstream and classic fiction will be called "general fiction" throughout this study.

-- HOUNSLOW --

In this study, adult fiction in Hounslow libraries were classed into 13 categories: general fiction, action, crime, graphic, horror, humour, romance, family sagas, science fiction, western, historical, fantasy and Asian language fiction.

I. BORROWER GROUPS

-- SANDWELL --

Out of the fiction categories, how many categories did the majority of the borrowers borrow? Was it true that the more fiction one borrowed, the more fiction categories one borrowed?

Table 35 Sandwell: Number of fiction categories in terms of borrower groups

No. of fiction categories	Light fiction borrowers %	Average fiction borrowers %	Heavy fiction borrowers %	All %
1	14	2	3	19
2 - 3	15	9	5	29
4 - 6	4	23	10	37
7 - 9	0	5	9	14
10 - 13	0	0	1	1
All	33	39	28	100

In the table, borrowers were divided into 3 borrower groups with regard to their total fiction loans. Light fiction borrowers were those who borrowed 1 to 10 fiction books in a year. Average fiction borrowers were those who borrowed 11 to 45 fiction books, whereas heavy fiction borrowers borrowed 46 fiction books or above. It was the same standard as used in defining light, average and heavy borrowers in previous sections, but this time only fiction books were covered.

In general, nearly one fifth (19%) of all fiction borrowers borrowed in 1 fiction category only. They were mostly light fiction borrowers. Meanwhile, 29% of all fiction

borrowers borrowed in 2 to 3 categories and 37% borrowed in 4 to 6 categories. Very very few of all fiction borrowers (1%) borrowed in 10 to 13 categories. It was understandable that a majority of the fiction borrowers borrowed in a few categories because one third of all fiction borrowers (33%) were light fiction borrowers. Their limited fiction loans possibly restricted the number of fiction categories they borrowed in.

The light fiction borrowers mainly borrowed in 1 to 3 categories. While accounting for 29% of all fiction borrowers, they also represented more than 80% of all light fiction borrowers. Nobody borrowed in 7 to 10 categories. It was impossible by definition for anyone in this group to borrow in 11 to 12 categories.

While the light fiction borrowers mainly borrowed in 1 to 3 fiction categories, the average fiction borrowers mainly borrowed in 4 to 6 categories. They accounted for 23% of all fiction borrowers, or more than half of all average fiction borrowers. However, nobody in this group borrowed in 10 to 13 categories.

The results for heavy fiction borrowers were interesting due to the large number of fiction loans made. They could borrow in one or all thirteen fiction categories whichever interested them. Among the heavy fiction borrowers, slightly more borrowers borrowed in 4 to 6 categories (10%), and 7 to 9 categories (9%). Unlike the average fiction borrowers, no single group of heavy fiction borrowers emerged as the major group of borrowing in any range of fiction categories.

Note that there were 2% of average fiction borrowers and 3% of heavy fiction borrowers who borrowed in only one fiction category. It would be interesting to see what fiction categories they borrowed.

Table 36 Sandwell: Number of average and heavy fiction borrowers borrowing in one fiction category only

Fiction Category	Average Fiction Borrowers	Heavy Fiction Borrowers
Romance	3	6
Crime	1	0

There were 4 average fiction borrowers who borrowed in 1 fiction category only. 3 borrowed romance fiction only whereas 1 borrowed crime fiction only. Among heavy fiction borrowers, there were 6 who borrowed in 1 fiction category only. Among them, 2 borrowed 50 to 70 fiction books. The remaining 4 borrowers, admirably, borrowed well over 100 fiction books. ALL of them borrowed ROMANCE only.

It would be a further point of interest to see what other fiction categories were also borrowed by borrowers of romance fiction. Since some borrowers sometimes untypically checked out a book of other category besides romance, only loans amounting to 2 or more books of romance and other categories were counted.

It was found that borrowers of romance fiction also borrowed general fiction, family, historical and crime fiction. However, out of the 26 borrowers who borrowed more than 10 romance fiction, 15 borrowed romance fiction only. The largest loan of romance fiction was 240, and this borrower did not borrow in any other fiction categories.

By contrast, some people had far more diverse tastes in reading. They were not satisfied with fiction books in just a few categories. In the sample, only 1% of all fiction borrowers borrowed in 10 to 13 categories. Again, with further analysis of the data, it was found that nobody borrowed in 10 categories. One borrowed in 11 categories (all except

science fiction and Asian language fiction) among his loans of 67 fiction books. Another borrower borrowed in all 12 categories among his loans of 226 fiction books - all except Asian language fiction.

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-- HOUNSLOW --

Table 37 Hounslow: Number of fiction categories in terms of borrower groups

No. of fiction categories	Light fiction borrowers %	Average fiction borrowers %	Heavy fiction borrowers %	All %
1	38	2	1	41
2 - 3	22	8	2	32
4 - 6	5	14	4	23
7 - 9	0	2	2	4
10 - 13	0	0	0	0
All	65	26	9	100

The fiction borrowers in Hounslow libraries were again divided into 3 fiction borrower groups, using the same standard in defining light, average and heavy borrowers. Light fiction borrowers were those who borrowed 1 to 13 fiction books in one and a third years. Average fiction borrowers were those who borrowed 14 to 60 fiction books, whereas heavy fiction borrowers borrowed 61 fiction books or above.

In contrast to Sandwell libraries, an overwhelming majority of fiction borrowers were light fiction borrowers (65%) in Hounslow, whereas in Sandwell, it was 33% in the sample. As the effect of this, more fiction borrowers borrowed in only one fiction category, with 41% against 19% in Sandwell. It can be seen from the table that a majority of these borrowers were actually light fiction borrowers (38%). They borrowed few fiction books and the books were usually in the same categories.

For the heavy fiction borrowers, their figures spread over the ranges of categories, except in the 10-13 category. But it should be borne in mind that heavy fiction borrowers only accounted for 9% of all fiction borrowers.

In Sandwell, the average and heavy fiction borrowers who borrowed in 1 fiction category mostly borrowed romance fiction. The Hounslow sample, however, presented a different picture of diversity. Due to the larger sample size, 2% of all fiction borrowers in the average fiction borrower group and 1% of all fiction borrowers in the heavy fiction borrower group actually represented 61 borrowers.

Table 38 Hounslow: Number of average and heavy fiction borrowers borrowing in one fiction category only

Fiction Category	Average Fiction Borrowers %	Heavy Fiction Borrowers %
General Fiction	37	34
Asian Language Fiction	12	22
Horror	11	0
Romance	9	22
Family Sagas	9	0
Humour	6	0
Action	4	0
Crime	4	22
Fantasy	2	0
Graphic	2	0
Historical	2	0
Science Fiction	2	0
All	100	100

Borrowers borrowing in 1 fiction category only can be found in any twelve fiction categories as shown in the table above. More average fiction borrowers borrowed in only general fiction, Asian language fiction, and horror. Heavy fiction borrowers borrowing in 1 fiction category borrowed only general fiction, Asian language fiction, romance, and crime fiction.

II. BORROWER SEX

-- SANDWELL --

In terms of fiction categories, which sex, male or female, were likely to borrow in more categories? Which sex tended to borrow in only a few categories?

Table 39 Sandwell: Number of fiction categories in terms of borrower sex

No. of fiction categories	M %	F %	CD %	No data %	All %
1	7	9	2	1	19
2-3	7	19	2	1	29
4 - 6	9	26	0	2	37
7 - 9	7	6	0	1	14
10 - 13	1	0	0	0	1
All	31	60	4	5	100

As shown in the table, male fiction borrowers tended to spread over all the ranges of fiction categories, with slightly more borrowers (9%) borrowed in 4 to 6 categories. A large number of female borrowers concentrated on borrowing in 4 to 6 categories. They amounted to 26% of all fiction borrowers. Male fiction borrowers had relatively more diverse tastes in fiction than females. The two borrowers who borrowed in 11 and 12 categories were both males.

Table 40 Hounslow: Number of fiction categories in terms of borrower sex

No. of fiction categories	M %	F %	CD %	No data %	All %
1	13	23	2	3	41
2-3	10	18	1	3	32
4 - 6	8	14	0	1	23
7 - 9	1	2	0	1	4
10 - 13	0	0	0	0	0
All	32	57	3	8	100

In terms of borrower sex, two features were dissimilar to those in Sandwell sample. First, more Hounslow male fiction borrowers borrowed in 1 fiction category, instead of spreading over all ranges as in Sandwell. Secondly, the largest group of female fiction borrowers (23%) borrowed in 1 category. It was unlike Sandwell where the largest group of female fiction borrowers borrowed in 4 to 6 fiction categories. In short, Hounslow fiction borrowers, both males and females, tended to borrow in fewer fiction categories than those in Sandwell.

III. BORROWER AGE

-- SANDWELL --

To cross-tabulate the number of fiction categories with the age of the borrowers produce the following result:

Table 41 Sandwell: Number of fiction categories in terms of the borrower age

No. of fiction categories	1-13 %	14-17 %	18-59 %	60+ %	No data %	All %
1	2	1	8	7	1	19
2 - 3	2	1	14	10	2	29
4 - 6	0	1	17	17	2	37
7 - 9	0	0	4	9	1	14
10 - 13	0	0	0.5	0.5	0	1
All	4	3	43.5	43.5	6	100

In the sample, 43.5% of all fiction borrowers were adults aged 18-59. Exactly the same percentage of all was elderly. With the same proportions of adults and the elderly, it would be easier to note the similarity and the difference in their borrowing patterns of fiction. There were an equal proportion of adults and the elderly borrowers who borrowed in 4 to 6 fiction categories. Each of them represented 17% of all fiction borrowers. However, the adult borrowers showed a higher tendency to borrow in fewer categories. Adults who borrowed in 2 to 3 categories amounted to 14% of all fiction borrowers. By contrast, the elderly borrowers had more likelihood to borrow in more fiction categories. The elderly who borrowed in 7 to 9 categories accounted for 9% of all fiction borrowers.

A point to note here was that the number of borrowers borrowing in 10 to 13 categories was put down as decimal figures in the table. This was done so that they could be

correctly represented in the overall picture. These two borrowers were heavy fiction borrowers and that they were male. To complete the picture, it was enough to say that one was an adult aged 18-59, and another was elderly.

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-- HOUNSLOW --

Table 42 Hounslow: Number of fiction categories in terms of the borrower age

| No. of fiction | 1-12 | 13-17 | 18-59 | 60+ | No data | All |
categories	%	%	%	%	%	%
1	2	6	25	5	3	41
2 - 3	1	3	19	7	2	32
4 - 6	0	0	13	9	1	23
7 - 9	0	0	1	1	2	4
10 - 13	0	0	0	0	0	0
All	3	9	58	22	8	100

Adult fiction borrowers behaved quite differently with respect to borrowing in fiction categories between Sandwell and Hounslow libraries. Unlike Sandwell, more adults borrowed in fewer fiction categories, with the majority borrowed in 1 category (25%). However, elderly fiction borrowers showed a similar trend with their counterparts in Sandwell. They tended to spread over all the ranges of categories, except 10-13. Like Sandwell, slightly more elderly borrowers borrowed in 4 to 6 categories (9%).

To conclude this section, Sandwell and Hounslow borrowers showed much difference in their borrowing patterns in fiction categories. In Sandwell, nearly half (48%) of all fiction borrowers borrowed in 1 to 3 fiction categories. More than one third borrowed in 4 to 6

categories. Very few borrowed in 10 to 13 categories. Light fiction borrowers mainly borrowed in 1 to 3 categories, while average fiction borrowers mainly borrowed in 4 to 6 categories. However, the number of heavy fiction borrowers spread almost evenly over the ranges of categories, except 10 to 13 categories. In Hounslow, 73% of all fiction borrowers borrowed in 1 to 3 categories. Most of them were light fiction borrowers.

For those average and heavy fiction borrowers who borrowed in only 1 fiction category, Sandwell borrowers mainly borrowed romance fiction. Hounslow borrowers borrowed in any category among the twelve fiction categories, with general fiction as the leading one.

In terms of sex, Sandwell male borrowers had more diverse tastes in fiction than females. They tended to spread over all ranges of fiction categories, whereas females concentrated on 4 to 6 categories. In Hounslow, both males and females concentrated on 1 fiction category. In terms of age, more adult borrowers in Sandwell borrowed in 4-6 categories, while adults in Hounslow showed a greater tendency to borrow in 1 fiction category. The elderly borrowers in both libraries resembled each other: more elderly borrowed in 4 to 6 categories in their own groups.

VII MOST POPULAR ADULT FICTION CATEGORIES

I. BORROWER GROUPS

-- SANDWELL --

In previous sections, it was found that adult fiction accounted for a large proportion (61%) of total issues, and nearly half (48%) of the fiction borrowers borrowed in 1 to 3 categories. Which were the most and the least popular fiction categories?

Table 43 Sandwell: Most popular fiction categories in terms of borrower groups

Most popular fiction categories	Light fiction borrowers %	Average fiction borrowers %	Heavy fiction borrowers %	All %
General fiction	44	37	25	36
Romance	8	8	31	15
Crime	8	15	20	14
Family Sagas	3	16	8	9
Horror	10	10	2	8
Adventure/Thriller	5	3	6	4
Western	3	1	6	3
Fantasy	5	2	2	3
Historical	2	6	0	3
Asian language fiction	6	0	0	2
War	2	1	0	1
Science fiction	2	1	0	1
Short stories	2	0	0	1
All	100	100	100	100

The results in the table confirmed that general fiction was by far the most popular among all fiction borrowers. They represented 36% in all. The second most popular fiction categories were romance (15%) and crime (14%). The third group was family sagas (9%) and horror (8%). The least popular fiction categories were war (1%), science fiction (1%) and short stories (1%).

General fiction was the most popular fiction among light (44%) and average (37%) fiction borrowers, and it was the second popular category among heavy fiction borrowers (25%). General fiction was particularly appealing to light fiction borrowers, as nearly half of them (44%) enjoyed this category. In other words, this group of borrowers borrowed few fiction books, but a lot of them liked to read general fiction.

A great proportion of average fiction borrowers (37%) showed an interest in general fiction. Besides, crime and family sagas were each liked by 15% and 16% of this group.

Unlike the other two borrower groups, romance fiction was the most popular fiction category (31%) among heavy fiction borrowers, followed by general fiction (25%) and crime (20%). The importance of romance fiction should be highlighted because this category was the most popular category among people who borrowed a lot of fiction books (46 or above).

Returning to the total number of fiction borrowers, on top of the list were general fiction, romance, crime, family sagas and horror fiction. Indeed, together, they made up a significant 80% of all fiction borrowers.

-- HOUNSLOW --

The fiction categories classed by Hounslow libraries were a little different from those used by Sandwell libraries. These categories are listed in the following table. Since the major categories are the same, comparison can still be made - but there are some reservations on detailed categorisation practice. More books were classed as "Family Saga" for instance at Hounslow than at Sandwell. "Action" at Hounslow covered both "Adventure/Thriller" and "War" at Sandwell.

Table 44 Hounslow: Most popular fiction categories in terms of borrower groups

Most popular fiction categories	Light fiction borrowers %	Average fiction borrowers %	Heavy fiction borrowers %	All %
General fiction	32	15	0	25
Romance	6	6	34	8
Crime	11	14	21	12
Family Sagas	15	22	12	17
Horror	7	7	6	7
Action	10	16	18	12
Western	0	0	6	1
Fantasy	2	0	0	1
Historical	1	1	0	1
Asian language fiction	6	8	0	6
Humour	4	1	0	3
Science fiction	4	8	3	5
Graphic	2	2	0	2
All	100	100	100	100

The most popular fiction categories among Sandwell and Hounslow borrowers were not exactly the same. In Hounslow as in Sandwell, general fiction was the most popular fiction among all fiction borrowers. However in Hounslow, family sagas (17%) ranked second to general fiction (25%) as the most popular fiction category, while in Sandwell, romance was the second popular category. The importance of family sagas among Hounslow borrowers should be stressed here, as they were the second most popular fiction category among light fiction borrowers (15%), and they ranked top in popularity among average fiction borrowers (22%).

Heavy fiction borrowers behaved quite differently from the other two borrower groups. General fiction (0%) completely lost its appeal to heavy fiction borrowers, whereas romance was the most popular fiction category (34%) among them. It was followed by crime (21%) and action (18%). But it should be borne in mind that heavy fiction borrowers only amounted to 9% of all fiction borrowers (table 37).

II. BORROWER SEX

— SANDWELL —

The following table looks closely at the reading interests of fiction books between males and females. What were the fiction categories most favoured by each sex? Were the categories liked and disliked by one sex the same for the other sex?

Table 45 Sandwell: Most popular fiction categories in terms of borrower sex

Most popular fiction categories	M %	F %	CD %	No data %	All %
General fiction	31	42	29	6	36
Romance	5	18	0	33	15
Crime	13	15	0	22	14
Family Sagas	2	12	0	22	9

Horror	11	6	0	11	8
Adventure/Thriller	11	1	14	0	4
Western	11	0	0	0	3
Fantasy	4	1	29	0	3
Historical	2	3	14	0	3
Asian language fiction	4	1	0	6	2
War	2	1	0	0	1
Science fiction	2	0	14	0	1
Short stories	2	0	0	0	1
All	100	100	100	100	100

Not surprisingly, a majority of male and female fiction borrowers enjoyed general fiction far more than the other fiction categories. However, there were proportionately more females (42%) than males (31%) who liked general fiction.

Furthermore, there were some notable differences between male and female fiction borrowers. The results for male borrowers were more diverse and widely spread over the fiction categories. The most popular fiction categories were general fiction (31%) and crime (13%), which together amounted to 44% of male fiction borrowers. It was interesting to point out that 3% of all fiction borrowers enjoyed western fiction, all of whom were males.

A stronger pattern emerged as the results of the female fiction borrowers were examined. Unlike male borrowers, females' reading interests mainly concentrated on a few categories, namely, general fiction, romance, crime and family sagas. Females enjoyed general fiction (42%) and romance (18%), which together accounted for 60% of all female fiction borrowers.

As a matter of fact, crime fiction was quite popular among males and females. There was a similar proportion of males (13%) and females (15%) within their groups who enjoyed

crime fiction. Therefore, in addition to general fiction, crime fiction was a second category which appealed to both sexes. The third category which attracted both sexes was horror fiction, with proportionately more males (11%) than females (6%) enjoying this category within their own groups. However, romance and family sagas were not much borrowed by males.

Among female borrowers, the least popular categories were western, science fiction and short stories, which scored 0%.

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-- HOUNSLOW --

Table 46 Hounslow: Most popular fiction categories in terms of borrower sex

Most popular fiction categories	M %	F %	CD %	No data %	All %
General fiction	26	27	20	15	25
Romance	0	12	10	10	8
Crime	18	10	20	8	12
Family Sagas	3	24	10	15	17
Horror	4	7	10	13	7
Action	24	6	0	15	12
Western	1	0	0	5	1
Fantasy	3	1	0	0	1
Historical	0	2	0	0	1
Asian language fiction	5	7	10	2	6
Humour	4	1	20	5	3
Science fiction	9	2	0	10	5
Graphic	3	1	0	2	2
All	100	100	100	100	100

Interesting patterns emerged when comparing male and female fiction borrowers in Hounslow libraries in terms of popular fiction categories. Males like general fiction (26%) and action (24%). These two categories together amounted to 50% of all male fiction borrowers. On the contrary, females like general fiction (27%) and family sagas (24%), which together represented 51% of all female fiction borrowers. It was interesting to see that male fiction borrowers in Sandwell liked general fiction and crime, while males in Hounslow liked general fiction and action.

Meanwhile, female fiction borrowers in Sandwell liked general fiction and romance, whereas females in Hounslow enjoyed general fiction and family sagas. Another point to stress is that male fiction borrowers in Hounslow did not like romance (0%), which was enjoyed by 12% of females.

III. BORROWER AGE

-- SANDWELL --

Cross tabulation of the most popular fiction categories with the borrower age also produced interesting results. How did reading interests of fiction change when people approached old age?

Table 47 Sandwell: Most popular fiction categories in terms of borrower age

Most popular fiction categories	1-13 %	14-17 %	18-59 %	60+ %	No data %	All %
General fiction	29	0	37	40	9	36
Romance	0	0	11	19	28	15
Crime	0	25	14	14	9	14
Family Sagas	0	0	6	13	18	9

Horror	0	50	14	0	9	8
Adventure/Thriller	14	0	4	4	9	4
Western	0	0	1	6	0	3
Fantasy	29	0	3	1	9	3
Historical	14	0	3	2	0	3
Asian language fiction	0	25	3	0	9	2
War	0	0	1	1	0	1
Science fiction	14	0	2	0	0	1
Short stories	0	0	1	0	0	1
All	100	100	100	100	100	100
(Number in sample:	7	4	80	81	11	183)

As anticipated, general fiction was the most popular category common to both the adults aged 18-59 (37%) and the elderly (40%). Among adult borrowers, crime and horror fiction were equally popular (14% each) next to general fiction. Then it was followed by romance fiction (11%) and family sagas (6%). The remaining number of adult borrowers spread almost evenly over 8 other categories.

Among the elderly borrowers, romance fiction (19%) held the greatest appeal apart from general fiction (40%). Crime fiction (14%) came as a close third on the list, followed by family sagas (13%). Meanwhile, there were 4 categories that the elderly least liked: horror fiction, Asian language fiction, science fiction and short stories.

Similarity and differences of reading interests were evident when these two borrower groups were compared. Similar to general fiction, crime fiction maintained its appeal to both borrower groups, with each accounting for 14% within their own groups. However, differences were greater between them. In addition to general fiction, the elderly showed much more interest in reading romance fiction than the adults. Similarly, family sagas and western fiction were liked by the elderly, with the number twice the number of adult

borrowers. On the other hand, while many adult borrowers (14%) enjoyed reading horror fiction, the elderly did not like it at all (0%).

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-- HOUNSLOW --

Table 48 Hounslow: Most popular fiction categories in terms of borrower age

Most popular fiction categories	1-12 %	13-17 %	18-59 %	60+ %	No data %	All %
General fiction	20	32	29	17	15	25
Romance	10	13	5	13	10	8
Crime	20	5	12	21	5	12
Family Sagas	10	3	14	30	15	17
Horror	10	13	7	0	13	7
Action	0	8	12	15	18	12
Western	0	0	0	1	5	1
Fantasy	0	5	2	0	0	1
Historical	0	0	1	2	0	1
Asian language fiction	10	3	9	1	2	6
Humour	20	5	2	0	5	3
Science fiction	0	8	5	0	10	5
Graphic	0	5	2	0	2	2
All	100	100	100	100	100	100

(Number in sample: 9   33   221   82   32   377)

The most popular fiction category among adult borrowers in Hounslow was general fiction (29%), which resembled the situation in Sandwell. However, the second most popular

fiction category among adults was family sagas (14%), whereas it was crime and horror fiction in Sandwell. This partly reflects different categorisation practice.

The elderly borrowers in Hounslow behaved very differently from the elderly in Sandwell. General fiction, which was the most popular fiction category among Sandwell elderly (40%), only ranked third in popularity among Hounslow elderly (17%). The most popular fiction category among the elderly in Hounslow turned out to be family sagas (30%). It was interesting to see that in Sandwell and Hounslow libraries, horror and science fiction were not popular among the elderly.

To conclude this section, general fiction was by far the most popular category among all fiction borrowers in both libraries. Besides general fiction, males liked crime fiction and females liked romance fiction in Sandwell libraries. In Hounslow, males enjoyed action fiction and females enjoyed family sagas. In terms of borrower age, Sandwell adult borrowers enjoyed general fiction, crime and horror fiction, and the elderly enjoyed general fiction and romance. The Hounslow adult borrowers liked general fiction and family sagas, while the elderly liked family sagas and crime fiction. Horror and science fiction were the least popular category among the elderly in both libraries.

VIII ADULT FICTION AUTHORS

I. BORROWER GROUPS

-- SANDWELL --

As mentioned in earlier sections, fiction borrowers tended to concentrate on a few fiction categories and nearly half of all fiction borrowers borrowed in only 1 to 3 categories. In view of this borrowing pattern, it was interesting to see how borrowers behaved when borrowing in fiction authors. Did they borrow in a few categories and a few authors? Did they borrow in a few categories, but many different authors? Some fiction borrowers borrowed a lot of books only in one category. Did they also borrow only one author? Other fiction borrowers borrowed a lot of books in more than 10 categories. Did they borrow many authors as well? Were there any differences among borrower groups?

In Figure 9 and 10, the number of fiction authors borrowed and the number of fiction books borrowed were plotted onto graphs. These two graphs show the typical situation of borrowers borrowing fiction - in relation to the number of fiction authors borrowed - in both libraries.

By simple count of the total number of fiction books borrowed and the total number of fiction authors borrowed, the author:book ratio for Sandwell sample is 78%, i.e. out of every 10 books borrowed, there were 7.8 different authors. In Hounslow sample, the author:book ratio is 75%. This suggests that in general, Sandwell borrowers borrowed more fiction authors than at Hounslow by a few percentage points.

In the following table, the number of fiction authors borrowed and the number of books borrowed were examined in detail with an author index. The number of fiction authors, represented in percentages, was tabulated with different fiction borrower groups. For adult

Relationship between number of authors and fiction books borrowed in Sandwell Libraries

Relationship between number of authors and fiction books borrowed in Hounslow Libraries

fiction and non-fiction, there was a fixed number of categories to make comparisons. However, in terms of fiction authors, borrowers could borrow as many authors as they liked within the number of fiction loans. Therefore, in order to capture this fact, the number of fiction authors borrowed was calculated in percentage terms in relation to the total number of fiction loans. For example, if a person borrowed 10 fiction books by 1 author, then the figure would be 10% in the table. If he borrowed 10 fiction books by 10 different authors, then the figure would be 100%. Other examples are:

10 books by 2 authors	$2 \div 10 \times 100 = 20\%$
20 books by 5 authors	$5 \div 20 \times 100 = 25\%$
20 books by 8 authors	$8 \div 20 \times 100 = 40\%$
50 books by 40 authors	$40 \div 50 \times 100 = 80\%$

In other words, the higher the percentage, the more fiction authors were borrowed, and vice versa.

Table 49 Sandwell: Number of fiction authors in terms of borrower groups

No. of fiction authors - Index	Light fiction borrowers %	Average fiction borrowers %	Heavy fiction borrowers %	All %
1-25%	0	0	1	1
26-50%	1	2	1	4
51-75%	3	11	9	23
76-99%	5	25	17	47
100%	24*	1	0	25
All	33	39	28	100

* 5% borrowed one fiction book only

In all, nearly half of the fiction borrowers (47%) tended to borrow fiction books written by many different authors (76-99%). That is, for every 4 fiction books they borrowed, they were likely to choose 3 to 4 different authors. In fact, as many as 25% of them borrowed every book by a different author (100% of authors). Probably, they did not concentrate on reading works by the same authors, or at least authors were not a significant element to consider when choosing fiction books. On the opposite end, only 1% of all fiction borrowers borrowed in a few authors (1-25% of authors). Here, an interesting feature emerged when comparing the borrowing patterns in fiction categories and fiction authors. That is, more fiction borrowers tended to borrow in few fiction categories, but they were likely to borrow books by many different authors.

A majority of light fiction borrowers (24%) borrowed works by a different author every time they checked out a fiction book (100% of authors). As a matter of fact, among the borrowers borrowing 100% of fiction authors, there were 5% of them who only borrowed one fiction book in the past year. One fiction book, of course, was written by one author, or one group of authors. Hence they were represented by 100% in the table. Therefore, apart from these 5% of borrowers, there were in fact 19% of all fiction borrowers in the light fiction borrower group who borrowed 100% of authors. However, it was surprising that very few of them (1%) borrowed 50% or less authors.

Quite different from the light fiction borrowers, average and heavy fiction borrowers tended to borrow fewer authors. A majority of them concentrated on the range of 76-99% of authors. Only 1% of all fiction borrowers in the average fiction borrower group borrowed 100% authors, and none in the heavy borrower group. It would be interesting to see how this average non-fiction borrower borrowed 100% authors. With further analysis of the data, it was found that she actually borrowed 23 fiction books written by 23 different authors.

On the other hand, resembling the light fiction borrowers, very few of the borrowers in the average and heavy borrower groups took out books by the same authors. There was one

person in the heavy borrower group who was in the range of 1-25% of authors. This borrower actually borrowed 52 fiction books written by 10 different authors. In other words, for the average authors, she borrowed 5.2 books.

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-- HOUNSLOW --

Table 50 Hounslow: Number of fiction authors in terms of borrower groups

No. of fiction authors - index	Light fiction borrowers %	Average fiction borrowers %	Heavy fiction borrowers %	All %
1-25%	1	0	0	1
26-50%	6	3	0	9
51-75%	8	8	4	20
76-99%	7	14	5	26
100%	43*	1	0	44
All	65	26	9	100

* 20% borrowed one fiction book only

Unlike Sandwell, a majority of fiction borrowers (44%) borrowed in 100% authors, among whom, 43% were light fiction borrowers. Upon further analysis, it was found that 20% of them borrowed only one fiction book. So actually, 23% of the light fiction borrowers borrowed every book by a different author. This figure did not differ much from Sandwell sample, with 23% against 19% in Sandwell.

Average fiction borrowers in Hounslow were similar to their counterparts in Sandwell. They (14%) tended to borrow fiction books by many authors (76-99%). In general,

Hounslow fiction borrowers resembled Sandwell fiction borrowers by borrowing in few fiction categories, but the books were written by many authors.

II. BORROWER SEX

-- SANDWELL --

Table 51   Sandwell: Number of fiction authors in terms of borrower sex

No. of fiction authors - index	M %	F %	CD %	No data %	All %
1-25%	0	1	0	0	1
26-50%	1	3	0	0	4
51-75%	7	15	0	1	23
76-99%	14	30	1	2	47
100%	9	11	3	2	25
All	31	60	4	5	100

In general, the borrowing patterns in fiction authors between males and females were similar to the overall pattern. In all, a majority (47%) borrowed in 76-99% of authors, and very few (1%) borrowed in 1-25% of authors. Similarly, a larger number of males and females (14% and 30% respectively) read fiction books by 76-99% of authors, and very few of them read fiction books by a few authors.

Meanwhile, there was not a marked difference between males and females in borrowing fiction authors. Since female accounted for 60% of all fiction borrowers, they were nearly twice the male fiction borrowers (31%). So in the table, although the figures for the females in each range of authors almost doubled the figures of males, they were similar in proportion. The only exception and the only difference between them lied in the 100% of

authors. It was true that there were more females (11%) who borrowed 100% of authors than males (9%). However, within the female group, those who borrowed 100% of authors only accounted for 18% within the female group. On the other hand, within the male group, those who borrowed 100% of authors represented as many as 29%. In other words, in terms of borrowing 100% authors, there was a larger proportion of borrowers within the male group who tended to borrow more authors than females within their own group.

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-- HOUNSLOW --

Table 52 Hounslow: Number of fiction authors in terms of borrower sex

No. of fiction authors - index	M %	F %	CD %	No data %	All %
1-25%	1	0	0	0	1
26-50%	2	6	1	0	9
51-75%	8	10	0	2	20
76-99%	7	17	0	2	26
100%	14	24	2	4	44
All	32	57	3	8	100

The borrowing patterns in fiction authors between males and females were similar. A large number of males (14%) and females (24%) borrowed 100% of fiction authors. However, in Sandwell, the majority of males and females borrowed 76-99% of authors.

III. BORROWER AGE

-- SANDWELL --

Cross tabulating the number of authors with borrower age produced the following results:

Table 53 Sandwell: Number of fiction authors in terms of borrower age

No. of fiction authors - index	1-13 %	14-17 %	18-59 %	60+ %	No data %	All %
1-25%	0	0	0	1	0	1
26-50%	0	1	2	1	0	4
51-75%	0	0	9	13	1	23
76-99%	1	0	18.5	24.5	3	47
100%	3	2	14	4	2	25
All	4	3	43.5	43.5	6	100

Again, both the adult group aged 18-59 and the elderly group had a majority of borrowers in the range 76-99% of authors. This result ran parallel to the general pattern. When comparing these two groups, however, there was a noticeable difference. Adults aged 18-59 tended to borrow more fiction authors than the elderly. Indeed, adding the figures of the ranges of 76-99% and 100% of authors, adult borrowers accounted for 32.5% of all fiction borrowers, whereas the elderly borrowers only accounted for 28.5%. Furthermore, in the range of 100% of authors, there were far more adults (14%) than the elderly (4%).

-- HOUNSLOW --

Table 54 Hounslow: Number of fiction authors in terms of borrower age

No. of fiction authors - index	1-12 %	13-17 %	18-59 %	60+ %	No data %	All %
1-25%	0	0	0	1	0	1
26-50%	1	0	5	2	1	9
51-75%	0	2	11	6	1	20
76-99%	0	1	14	9	2	26
100%	2	6	28	4	4	44
All	3	9	58	22	8	100

More adult fiction borrowers borrowed 100% of authors, whereas elderly borrowers tended to concentrate on 76-99% of authors or less. This borrowing pattern was similar to that in Sandwell, i.e. adults tended to read fiction books by more authors, while elderly tended to read fiction books by fewer authors.

To summarise this section, a majority of the fiction borrowers tended to borrow fiction books written by many different authors (76-99% of authors) in Sandwell, and 100% of authors in Hounslow. Very few borrowers (1%) borrowed few authors (1-25%) in both libraries. There was no marked difference between males and females in borrowing fiction authors. Both of them were likely to borrow works by more authors. Both adult and the elderly borrowers borrowed quite a lot of fiction authors (76-100% of authors). Comparatively speaking, adults tended to borrow more authors than the elderly.

IX ADULT NON-FICTION CATEGORIES

To complete the picture, the borrowing patterns in non-fiction categories were also analysed. It was intended here to see if the non-fiction borrowers showed a resemblance to fiction borrowers in terms of borrowing in categories.

In Sandwell and Hounslow libraries, non-fiction books were classified and arranged on shelves according to Dewey Decimal Number. To classify the books into meaningful categories which could be handled in this study, it was found that Dewey classification scheme could not be used. On one hand, the tenth divisions were too broad to give sufficient indication of the subjects of the books. On the other hand, the hundred divisions would result in too many categories than necessary. As a result, it was decided that the classification scheme of PLR loans (Sumsion 1991) for non-fiction books was adopted. In all, there were 34 non-fiction categories (Appendix 2). In this study, non-fiction books were re-classified into these 34 categories according to their Dewey Decimal Number.

Again for the Sandwell sample, the borrowers were divided into sub-groups with regard to the number of non-fiction loans. For the Sandwell sample, the same definition used for fiction loans was used, but only non-fiction books were covered. Light non-fiction borrowers were those who borrowed 1-10 non-fiction books. Average non-fiction borrowers were those who borrowed 11-45 non-fiction books, whereas heavy non-fiction borrowers borrowed 46 non-fiction books or above.

For the Hounslow sample, the same definition used for fiction loans was used here for non-fiction loans. Light non-fiction borrowers were those who borrowed 1-13 non-fiction books. Average non-fiction borrowers were those who borrowed 14-60 non-fiction books, while heavy non-fiction borrowers borrowed 61 non-fiction books or above.

I. BORROWER GROUPS

-- SANDWELL --

Table 55 Sandwell: Number of non-fiction categories in terms of borrower groups

No. of non-fiction categories	Light non-fiction borrowers %	Average non-fiction borrowers %	Heavy non-fiction borrowers %	All %
1	32	0	0	32
2 - 3	29	4	0	33
4 - 6	14	9	0	23
7 - 9	1	6	0	7
10 - 13	0	3	0	3
14+	0	1	1	2
All	76	23	1	100

In view of the fact that the number of non-fiction loans was low in Sandwell, it was not surprising that a large number of non-fiction borrowers was light non-fiction borrowers (76%). Only 1% of all non-fiction borrowers were heavy non-fiction borrowers.

Overall, 32% of non-fiction borrowers borrowed in 1 category only, whereas 33% borrowed in 2 to 3 categories. Indeed, about two third of all non-fiction borrowers borrowed in 1 to 3 categories. In other words, when reading non-fiction books, a vast majority concentrated on reading a few categories. However, there were still 5% of all non-fiction borrowers (8 borrowers) borrowed in 10 or more non-fiction categories, compared with 1% of all fiction borrowers (2 borrowers) who borrowed in 10 or more fiction categories. It

suggested that there were slightly more non-fiction borrowers in percentage and in real terms to borrow in 10 or more categories than fiction borrowers.

The borrowing patterns among borrower groups were interesting: a majority of light non-fiction borrowers borrowed in 1-3 non-fiction categories; average non-fiction borrowers tended to spread over all ranges of categories, except in 1 category; heavy non-fiction borrowers borrowed in 14 or more categories. In real terms, there were only 2 heavy fiction borrowers: one borrowed in 16 categories, and one borrowed in 19 categories.

-- HOUNSLOW --

Table 56 Hounslow: Number of non-fiction categories in terms of borrower groups

No. of non-fiction categories	Light non-fiction borrowers %	Average non-fiction borrowers %	Heavy non-fiction borrowers %	All %
1	36	0	0	36
2 - 3	28	2	0	30
4 - 6	11	5	0	16
7 - 9	9	6	0	15
10 - 13	0	2	0	2
14+	0	1	0	1
All	84	16	0	100

The borrowing patterns of non-fiction borrowers in non-fiction categories were in line with those in Sandwell. An overwhelming majority (84%) of non-fiction borrowers in Hounslow were light non-fiction borrowers. That might explain why the number of non-

fiction borrowers were more than the number of fiction borrowers (Table 20), but the number of non-fiction loans were less than that of fiction loans (Table 18). In the above table, 0% of non-fiction borrowers was heavy non-fiction borrowers. Actually there were 4 heavy non-fiction borrowers, but they were rounded off because of the large sample size.

Similar to Sandwell, a large number of light non-fiction borrowers concentrated on 1-3 categories, whereas average non-fiction borrowers spread over all ranges of non-fiction categories, except in 1 category.

To conclude this section, the borrowing patterns of non-fiction borrowers were similar in Sandwell and Hounslow libraries. A vast majority of non-fiction borrowers were light fiction borrowers. Most of them borrowed mainly in 1-3 non-fiction categories. Average non-fiction borrowers could be seen borrowing in all ranges of categories except in 1 category. Heavy non-fiction borrowers borrowed in 14 or more categories in Sandwell, but 0% of non-fiction borrowers was heavy non-fiction borrowers in Hounslow.

X MOST POPULAR ADULT NON-FICTION CATEGORIES

I. BORROWER SEX

-- SANDWELL --

In the previous section, there was an analysis of the number of adult non-fiction categories by borrower. Non-fiction books were re-classified into 34 categories according to their Dewey Decimal Number. Because of the large range of categories, it was decided here to list only the top 5 popular categories.

Table 57 Sandwell: Top five most popular non-fiction categories in terms of borrower sex

All non-fiction borrowers		Males		Females	
Most popular non-fiction categories	%	Most popular non-fiction categories	%	Most popular non-fiction categories	%
Travel	7	War & Military History	4.4	Family & Health	4.7
Biography	6.2	Travel	4.2	Medical Science	4.3
Medical Science	6	Gardening	3.7	Biography	3.7
Language & Literature	5.3	Language & Literature	2.4	Food & Drink	3.4
War & Military History	5.3	Transport	2.4	Language & Literature	2.9

The figures in the table appear rather low because the number of the non-fiction categories spreads over a range of 34 categories. At the same time, it should be borne in mind that since the total number of non-fiction borrowers was relatively small, so in real terms, the actual number of borrowers in each category was quite small.

Overall, Travel was the most popular category, being borrowed by 7% of all non-fiction borrowers. Biography (6.2%) came second on the list, followed closely by medical science (6%), language & literature (5.3%) and war & military history (5.3%).

Among male borrowers, it was not surprising that war & military history came top on the list, as it is traditionally thought to be a male area of interest. Meanwhile, male borrowers were also interested in travel and gardening books.

As anticipated, the most popular non-fiction categories among female borrowers turned out to be major female areas of interests. The most popular categories were family & health, medical science and food & drink, which reflected females' concern for home and family. Family & health (4.7%) ranked top on the list, followed by a closely related subject, medical science (4.3%). Biography ranked third in popularity, and food & drink was the fourth on the list.

Again, similar to the analysis on adult fiction, there was a fundamental difference between males and females in terms of their reading interests in non-fiction. Table 57 illustrated that the top five most popular categories for both sexes were hardly the same.

-- HOUNSLOW --

Table 58 Hounslow: Top five most popular non-fiction categories in terms of borrower sex

All non-fiction borrowers		Males		Females	
Most popular non-fiction categories	%	Most popular non-fiction categories	%	Most popular non-fiction categories	%
Travel	10	Travel	4	Travel	5
Biography	8	Language & Literature	3	Biography	4
Language & Literature	8	Economics & Management	3	Language & Literature	4
Economics & Management	8	Biography	2	Family & Health	3
History	5	History	2	Food & Drink	3

Travel books also appealed to Hounslow borrowers, accounting for 10% of all non-fiction borrowers. It was followed by biography (8%) and language & literature (8%), which were also popular among Sandwell borrowers. Among male and female borrowers, travel books ranked top in popularity. It was interesting to note that in Sandwell, only male borrowers were interested in travel books, but not females. In Hounslow, the other two non-fiction categories which were equally enjoyed by males and females were biography and language & literature.

II. BORROWER AGE

-- SANDWELL --

Table 59 Sandwell: Top five most popular non-fiction categories in terms of borrower age

18-59		60+	
Most popular non-fiction categories	%	Most popular non-fiction categories	%
Medical Science	4	Biography	4
Food & Drink	3.7	War & Military History	3.5
Travel	3.5	Travel	2.5
Animals & Pets	3.4	Medical Science	1.9
Language & Literature	3.3	Hobbies & Crafts	1.8

Adults aged 18-59 enjoyed books on medical science, food & drink, and travel most. On the other hand, the elderly borrowers liked to read biography, war & military history, and travel books. The most popular categories among adults and the elderly were different, with a notable exception of 2 categories. They both enjoyed travel and medical science books.

Table 60 Hounslow: Top five most popular non-fiction categories in terms of borrower age

18-59		60+	
Most popular non-fiction categories	%	Most popular non-fiction categories	%
Travel	8	Biography	3
Language & Literature	5	Travel	1
Economics & Management	5	History	1
Biography	4	Language & Literature	1
Food & Drink	4	Art	1

Travel books were popular among adults and the elderly borrowers in Hounslow and Sandwell libraries. Similarly, biography ranked top in popularity among the elderly non-fiction borrowers in both libraries.

To summarise this section, travel was the most popular category among all non-fiction borrowers, followed by biography. The categories popular among males were different from those popular among females in Sandwell libraries, but the difference was less marked between males and females in Hounslow libraries. In terms of borrower age, adults liked medical science most, while the elderly liked biography most in Sandwell. In Hounslow, travel books and biography maintained their appeal to both age groups.

XI NON-BOOKS LOANS

I. NO. OF NON-BOOK BORROWERS

-- SANDWELL --

In this section, the loans of non-book materials were examined to see which type of non-book items were the most popular among borrowers. The number of borrowers was counted in light of their borrowings in each non-book categories. Therefore, the figures in the table were not restricted to single category borrowers.

Table 61 Sandwell: Number of borrowers borrowing non-book materials

Non-book materials	Proportion of non-book borrowers %	Number of non-book borrowers
Spoken words	52	39
Cassettes	31	23
CD	16	12
Videos	1	1
All	100	75

The overriding impression gained from this result was that a majority of non-book borrowers preferred spoken words (52%). It amounted to half of all non-book borrowers. This figure highlighted the popularity of spoken words among non-book materials. Cassettes were the second popular items (31%), followed by CD (16%). Videos (1%) by far were the least popular in terms of the number of borrowers.

-- HOUNSLOW --

Table 62 Hounslow: Number of borrowers borrowing non-book materials

Non-book materials	Proportion of non-book borrowers %	Number of non-book borrowers
Spoken words	23	101
Cassettes	30	129
CD	19	85
Videos	28	124
All	100	439

In Hounslow, the borrowing pattern of non-book borrowers was not so remarkable as in Sandwell. Each non-book category has got a fair proportion of borrowers. Although spoken words lost their popularity to cassettes (30%) and videos (28%), they still retained 23% of borrowers.. The least borrowed non-book materials were CD (19%).

II. MAINLY BOOK AND MAINLY NON-BOOK LOANS

-- SANDWELL --

In the following, library materials were broadly divided into books and non-books. Books include adult fiction, adult non-fiction, children's fiction and children's non-fiction. Non-books include spoken word, cassettes, CD and videos. Similar to the definition of mainly adult fiction and mainly non-fiction loans, loans of mainly books and mainly non-books were calculated with 90% of the total loans as the dividing line.

Table 63 Sandwell: Number of borrowers borrowing mainly books and mainly non-books

Loan item category	No. of borrowers
Mainly Books	87
Mainly Non-books	2
Both	11
All	100

In Sandwell, an overwhelming majority of borrowers (87%) borrowed mainly books. Only 2% of all borrowers borrowed mainly non-books.

-- HOUNSLOW --

Table 64 Hounslow: Number of borrowers borrowing books and mainly non-books

Loan item category	No. of borrowers
Mainly Books	75
Mainly Non-books	5
Both	20
All	100

As at Sandwell, a great majority of Hounslow borrowers (75%) borrowed mainly books, with a lower percentage than in Sandwell (87%). However, non-book materials in Hounslow gained popularity. 20% of all borrowers borrowed both and 5% of all borrowers borrowed mainly non-book materials. It indicated a significant increase in the borrowing of non-books than that in Sandwell in percentage terms and substantially in real terms, because of the large sample size in Hounslow.

CHAPTER 6   CONCLUSIONS AND RECOMMENDATIONS

In analysing loans, fiction is high (61% and 34%). In analysing borrowers by what they borrow, fiction is a less important percentage. Non-fiction borrowers (30% and 35%) are a much higher percentage than the count of non-fiction loans (13% and 28%) suggests. The reason for this is that fiction borrowers particularly among the elderly borrow relatively large numbers of books.

There are a great many borrowers whose borrowing is general rather than specialised. This is shown in the proportions borrowing <u>both</u> fiction and non-fiction (31% and 44%). These statistics support Market Research questionnaire results (Table 32). It is also shown by the analysis of the number of categories and authors borrowed by individuals (See tables in Section VI, VIII and IX).

Those who borrow both books and non-books are not such a high proportion - but they still represent a substantial clientele. Only a very small proportion borrow mainly non-books (Section XI).

In both places, more males than females borrow non-fiction and more females than males borrow fiction - in very similar proportions.

In both places, the elderly borrow much more fiction than the 18-59 Adults (+53% and +77%). But they borrow appreciably less adult non-fiction (-17% and -10%) and non-book materials (-31% and -24%).

Comparison of the two libraries showed more differences than similarities, which in turn revealed their own characteristics. Sandwell libraries are situated in West Midlands,

whereas Hounslow libraries are situated in Outer London. These groups of libraries serve communities with their own characteristics, which differ a great deal between them. These differences - reflected in the number of loans, borrowers' reading interests and borrowing patterns - present a picture full of contrasts.

In terms of the number of loans, Sandwell and Hounslow borrowers behaved similarly. Females and the elderly tended to be heavy borrowers, and males were likely to be light borrowers. However, the Sandwell adults aged 18-59 were predominantly light borrowers, whereas at Hounslow, they were spreading in almost even proportions.

In the features of book issues, Sandwell and Hounslow libraries are very different. Adult fiction loans in Sandwell accounted for a large proportion (61%) of total loans, while in Hounslow, the numbers of adult fiction (34%) and non-fiction (28%) loans were quite close. It was interesting to see that the pattern was reversed when the number of borrowers was examined. The number of people borrowing fiction (32%) and non-fiction (30%) were quite close in Sandwell, while the number of people borrowing non-fiction at 35% was much higher than that of fiction (20%) in Hounslow.

In terms of sex, more males tended to borrow non-fiction in both libraries. In both libraries, fiction attracted more female borrowers. However, in Sandwell, there were more females borrowing fiction than non-fiction, but in Hounslow, there were more females borrowing non-fiction than fiction.

The results of borrowing in mainly fiction and mainly non-fiction were different between Sandwell and Hounslow libraries. In Sandwell, more heavy borrowers, females and the elderly borrowed mainly fiction. On the other hand, more light borrowers, females and males borrowed mainly non-fiction and both categories in Hounslow.

In Sandwell as in Hounslow, a majority of borrowers borrowed in 1-3 fiction categories. However, females and adults in Sandwell tended to concentrate on 4-6 fiction categories. In Hounslow, more males, females and adults borrowed in 1 fiction category.

With respect to the most popular fiction category, general fiction was most widely featured in Sandwell and Hounslow. Other than general fiction, the second popular fiction categories are not the same in terms of borrower groups, sex and age, and between Sandwell and Hounslow libraries.

A striking similarity found between Sandwell and Hounslow libraries is the borrowing patterns in non-fiction. A vast majority of non-fiction borrowers were light borrowers, and most of them borrowed mainly in 1-3 non-fiction categories. They tended to borrow non-fiction books written by many different authors.

The universal most popular non-fiction category was travel and biography. But when the most popular non-fiction categories were further analysed in terms of borrower sex and age, there were vast differences among sex groups, age groups and between Sandwell and Hounslow libraries.

Regarding non-books, an overwhelming number of borrowers borrowed spoken word in Sandwell. In Hounslow, slightly more people borrowed cassettes and videos. In both libraries, a large majority of borrowers borrowed mainly books, but a few more borrowers borrowed mainly non-books and both in Hounslow than in Sandwell.

As seen from this study, computer records contain a wealth of raw data. They can be analysed to find out the overall borrowing patterns in a library and the borrowing patterns of each sub-group. This source of data on loans and borrowers can be further explored. This study has looked at the various aspects of borrowing patterns. Future studies should investigate other aspects, e.g. what are the fiction categories which are usually associated

when they are borrowed, etc. In terms of borrowers, this study has looked at borrower groups, sex and age. Further studies can examine the socio-economic background and education levels of the borrowers in relation to the type of books they borrowed.

BIBLIOGRAPHY

Batt, Chris, 1992. *Information technology in public libraries.* 4th ed. London: Library Association.

Birmingham Library Services, Policy and Research, 1991. *City profile: report of survey of 37 community libraries.* Birmingham: Birmingham Library Services, Policy and Research.

Bolton, W. Theodore, 1982. Life style research: an aid to promoting public libraries. *Library Journal*, May 15, 963-968.

Book Marketing Ltd., 1991. *Book and the consumer 1990: extra analysis, library usage.* London: Book Marketing Ltd.

Book Marketing Ltd., 1993. The breath of borrowing. *Book Marketing Update*, issue 24, December 1993.

Books For Students Ltd., 1994. *Adult fiction paperbacks: January 1994.* Warwick: Books For Students Ltd.

Cheshire Library Service, Research and Intelligence Section, 1985a. *The Cheshire Library Survey: 1. New Town: New Library.* Cheshire: Cheshire Library Service, Research and Intelligence Section.

Cheshire Library Service, Research and Intelligence Section, 1985b. *The Cheshire Library Survey: 2. Out of a job: Into a library?* Cheshire: Cheshire Library Service, Research and Intelligence Section.

CIPFA (The Chartered Institute of Public Finance and Accountancy), 1994. *Public Library Statistics 1992/93 Actuals.* London: CIPFA.

Department of Recreation and Libraries, 1985. *An analysis of the community served by Southwick Library.* Sunderland: Department of Recreation and Libraries.

England, Len, 1992. *Borrowing books: readership and library usage in Great Britain.* London: Book Marketing Ltd.

England, Len, 1994. *The library user: the reading habits and attitudes of public library users in Great Britain (BNBRF Report 68).* London: Book Marketing Ltd.

Gill, K.K., 1991. *Right from the start: a study of provision for under fives in two Leicestershire libraries.* Loughborough University of Technology. A master's dissertation.

Hill, Linda and Helen Pain, 1988. Young people and public libraries: use, attitudes and reading habits: a survey of 13-16 year olds in Nottinghamshire. *International Review of Children's Literature and Librarianship* 3(1), 26-40.

HMSO, 1993a. *1991 Census: County Report, West Midlands (Part 1).* London: HMSO.

HMSO, 1993b. *1991 Census: County Report, Greater London (Part 1).* London: HMSO.

Huse, Roy, (ed.), 1993. *Who else writes like? A readers' guide to fiction authors.* Loughborough: Library and Information Statistics Unit..

Kiley, Robert, 1988. *Generating management information from BookshelF using the PICK operating system.* Loughborough University of Technology. A master's dissertation.

Logical Choice Computer Services Ltd., 1984. BookshelF: an integrated, modular package for the smaller library. *Vine* (54) June, 37-38.

Logical Choice Computer Services Ltd., 1986. BookshelF: the library management solution. *Program* 20(4).

Osborn, Averil and Leslie Smyth, 1973. Public use of business and commercial information: a pilot study at the Commercial Library, Manchester Central Library. *Aslib Proceedings*, 25(7), 243-251.

Pick Systems, 1988. *Pick R83 reference manual.* Rev 4. California: Pick Systems. Unpublished.

Powne, Clare, 1987. First experiences with BookshelF at Fife Health Board. *Program* 21(3), 260-271.

Richardson, Colin, 1987. Teens read, or do they? *Public Library Journal* 2(2), 17-21.

Rowley, Jennifer and Shelagh Fisher, 1992. *BookshelF: a guide for librarians and systems managers.* Aldershot: Ashgate.

Sandwell Community Library Service, 1993. *Library user survey 1993: summary guide*. Sandwell: Sandwell Community Library Service.

Specialist Computer Systems & Software, 1988. *BookshelF*. Unpublished.

Sumsion, John, 1991. *PLR in practice*. 2nd ed. Cleveland: Registrar of Public Lending Right.

Sumsion, John, 1993. *Practical Performance indicators 1992*. Loughborough: Library and Information Statistics Unit.

Sumsion, John, Helen V. Pickering and Pamela J. Berridge, 1993. *LISU annual library statistics 1993: featuring trend analysis of UK public and academic libraries 1982-92*. Loughborough: Library and Information Statistics Unit.

Westin, Alan F. and Anne L. Finger, 1991. *Using the public library in the computer age: present patterns, future possibilities*. Chicago, London: American Library Association.

White, D., 1987. The provision of community information: what does the public want? *CRUS News*, 28, July, 7-9.

APPENDIX 1 - PLR LOANS: NON-FICTION CATEGORIES
(SAMPLE PAGE)

<u>ADULT NON-FICTION CATEGORIES</u>

The Dewey numbers are not mutually exclusive and are given for guidance only.

100 MISCELLANEOUS   MIS/NF
    Items of general interest that do not fit readily into other categories.

110 THE SCIENCES   SCI/NF
    The pure sciences, such as chemistry, physics, mathematics.
    500-548, 999

112 MEDICAL SCIENCE   MED/NF
    'Serious' medical books, including psychology and human biology.
    Technical environmental health books can also be included.
    150-159, 610-619

114 TECHNOLOGY   TEC/NF
    Includes industry and its products, plus pollution, communications.
    344.046, 363.1, 363.7, 383-384, 600-609, 620-622, 624, 625.7-629.05, 629.8,
    660-683, 685-686, 688

115 COMPUTERS   COM/NF
    001.6-001.64

117 TRANSPORT   TRA/NF
    All types of transport, including space flight, car manuals.
    385-388, 625-625.6, 629.04, 629.1-629.4

119 WAR & MILITARY HISTORY   WAR/NF
    Everything to do with military science - uniforms, weapons, military transport,
    medals, battles, history of wars, etc.
    341.5, 355-359, 623, 940.3-940.4, 940.53-940.54

120 HISTORY   HIS/NF
    This includes ancient history, archaeology and anthropology. History of Great
    Britain and the world.
    353-354, 900-909, 930-940.2, 940.51-940.52, 940.55-998

122 LOCAL INTEREST   LOC/NF
    Any works aimed specifically at the local area - the town or village, or the subject
    is very narrow - watermills, canals.
    e.g., books by Bernard E Dorman and Rodney Legge.

APPENDIX 2 - NON -FICTION CATEGORIES

NON-FICTION CATEGORIES

1	Biography
2	History
3	Geography
4	Language & Literature
5	Philosophy & Religion
6	Visual Arts
7	Music
8	Entertainment
9	Science & Technology
10	Politics & Law
11	Management & Economics
12	Medical Science
13	Social Sciences
14	Family & Health
15	Food & Drin,k
16	Nature & Country Life
17	Animals
18	Pets
19	Gardening
20	Hobbies & Crafts
21	Do-It-Yourself
22	Transport
23	Computers
24	Sport
25	Indoor Games
26	Travel
27	Customs
28	Names
29	Local Interest
30	Occult
31	Espionage & Crime
32	War & Military History
33	Humour
34	Miscellaneous

APPENDIX 3 - FICTION CATEGORIES IN SANDWELL LIBRARIES

ADULT FICTION   **AF**

Mainstream fiction that does not lend itself to instant categorisation. Classic fiction and "quality" authors are put in AF. The list of authors contains writers whose books could be put in another category, but for a variety of reasons, it has been decided to make them AF.

ADVENTURE/THRILLER   **AF**

Novels in which the central character or characters encounter natural or human adversities. Action, travel or mystery are often involved. Spy stories are also included in this category. These are often seen as "men's books".

AFRO-CARIBBEAN INTEREST   **ACB**

Generally written by authors from Africa and the Caribbean, set in that geographical area, and reflecting that culture.

ASIAN INTEREST   **ASN**

Generally written by authors from the Indian sub-continent, set in that geographical area, and reflecting that culture.

CRIME   **CRI**

Stories about sleuthing; the commitment of crimes and the apprehension of guilty parties, often by police or private detectives. Crime stories set in the past are included here.

FAMILY SAGAS   **FAM**

Fictional accounts of the lives of particular families or groups, often spanning several generations. The saga can sometimes be spread over several volumes. The setting and period are irrelevant. This category is always preferred to HIS if there is a conflict.

FANTASY   **FAN**

An extravagant visionary story, not based on realistic characters or setting; sometimes with myth or legend as a starting point. Often the novels are written in series.

HISTORICAL   HIS

Novels with plots set mainly pre-1900. The history element must be an important part of the story, not just the setting. If the novel fits any other category, such as AT, CRI, FAM or ROM, but is set in the past, it is put in those categories. Novels written before-1900 will always be AF.

HORROR   HOR

Spine chillers; stories written with the aim to frighten or shock. Often concerned with the supernatural.

ROMANCE   ROM

The basic heterosexual love story with little plot or characterisation. Only the lightest romance authors not published in the major series are included here. This category is preferred for "bodice rippers" and the very lightest historical romance.

SCIENCE FICTION   SF

Novels set in an imaginary world, often a future world, where there are technological or environmental differences from our own world.

SHORT STORY   SS

"Quality" authors might be found in this category. Short stories from a particular genre (e.g. CRI, FAN, HOR, SF) are put in that category. All other short stories are put here, including those by classic and pre-1900 authors.

WAR   WAR

Fictional accounts of the armed forces and armed conflict, by land, sea and air. These accounts can be from any historical period.

WESTERN   WES

An action story set in the mythical Wild West of the late 19th Century. Only the lightest novels should go into this category.

- Sandwell Community Libraries

APPENDIX 4 - COMPUTER COMMANDS USED IN SANDWELL BOOKSHELF

BOOKSHELF : AIX Version 3.2
(AIX operating system   PI/Open Rev. 3.4 - fcs.)

* Commands are in capital letters
* Explanatory notes are in <   >

Part One
Transfer data of Author and Title from MAIN.CAT to CIRC.HISTORY by creating files in CIRC.HISTORY:

Create AUTHOR file in CIRC.HISTORY
Step 1
ED DICT MAIN.CAT CLASS
. P   <display contents>
......   <press enter until end of file>
. FI   <file>
. EX   <exit>

Step 2
ED DICT CIRC.HISTORY AUTHOR
. LOAD DICT MAIN.CAT CLASS
. 1   <put in the first line of the file in step 1>
. 19   <put in the last line of the file in step 1>
......   <press enter until end of file>
. FI   <file>
. EX   <exit>

Step 3
ED DICT CIRC.HISTORY AUTHOR
. P   <display contents>
001 I
002 TRANS (...... CLASS .....)
003
004 CLASS
005 5R

.....
. G2   <go to 2>
002 TRANS (.....CLASS.....)
.R TRANS (..... AUTHOR .....)   <replace CLASS with AUTHOR>
.....   <press enter until end of file>
.FI   <file>
.P   <display contents>
.G4   <go to 4>
.R AUTHOR   <replace CLASS with AUTHOR>
.....   <press enter until end of file>

.FI	<file>
.P	<display contents>
G5	<go to 5>
. R. 10L	<change the no. of characters and alignment .
	from R to L>
	<press enter until end of file>
.....	
. FI	<file>
.P	<display contents>
	<the amended contents should be shown>
......	
.FI	<file>
. EX	<exit>

Repeat the three steps for creating a TITLE file in CIRC.HISTORY

       Step 1 - ED DICT MAIN.CAT CLASS

       Step 2 - ED DICT CIRC.HISTORY TITLE   <change AUTHOR into TITLE>

       Step 3 - ED DICT CIRC.HISTORY TITLE

            Amend the following lines into these:

            002 TRANS (..... TITLE .....)

            004 TITLE

            005 10L

If the creation of files are successful, put in this command, then the Author and title will be listed:

LIST CIRC.HISTORY CLASS AUTHOR TITLE

Part Two

Search CIRC.HISTORY with reader no. for book data

SSELECT CIRC.HISTORY BY-EXP READER.CODE WHEN READER.CODE GE "first no. of reader" AND WHEN READER.CODE LE "last no. of reader" AND WHEN MOVEMENT EQ "I"

SAVE.LIST DATA1

GET.LIST DATA1

LIST CIRC.HISTORY BREAK.ON READER.CODE DATE STD.NO CLASS AUTHOR TITLE LPTR   <LPTR is to put data to printer>

Part Three

Search READER for reader data

SELECT READER BY-EXP @ID WITH @ID GE "first reader no." AND @ID LE "last reader no."

SAVE.LIST READ1

GET.LIST READ1

LIST READER TITLE STATUS STATUS.DESC POSTCODE LPTR

APPENDIX 5 - EXAMPLE PAGE OF LOAN RECORDS IN SANDWELL

```
LIST CIRC.HISTORY BREAK.ON READER.CODE DATE STD.NO CLASS AUT TITLE LPTR
16:50:07  25-04-94  PAGE    68
```

CIRC.HISTORY	Reader.	Date....	Standard number....	Class	Author(s)	Title.....
				8	Robert	guide to Sicily
					Brown, Jules	
I0237043	B006581	01-03-94	0747101256	914.5 8	Andrews, Robert	The rough guide to Sicily
					Brown, Jules	
I0237043	B006581	23-03-94	0747101256	914.5 8	Andrews, Robert	The rough guide to Sicily
					Brown, Jules	
I0237043	B006581	18-04-94	0747101256	914.5 8	Andrews, Robert	The rough guide to Sicily
					Brown, Jules	
I0237071	B006581	21-01-94	1852150157	914.6 89	Palmer, Terry	Discover Gibraltar
I0237845	B006581	13-11-93	0749303670	940.5 421	Warner, Philip	The D day landings
I0238049	B006581	21-01-94	0712608281	914.6 8	Luard, Nicholas	Andalucia: a portrait of South
I0238960	B006581	01-03-94	0713713763	635.9 3 FUC	Proudley, Brian	How to grow fuchsias
					Proudley, Valerie	
I0238997	B006581	03-11-93	0715389408	629.1 3335	Fay, John	The helicopter : history, pilot
I0240015	B006581	05-07-93				
I0399483	B006581	07-01-94	9624215375	914.6 8	Collins, Barnard	Marbella: Costa Del Sol
I0399483	B006581	01-03-94	9624215375	914.6 8	Collins, Barnard	Marbella: Costa Del Sol
I0400031	B006581	18-04-94	9624215502	914.6 8	Tisdall, Nigel	Seville Cordoba & Granada
I0400653	B006581	26-11-93	0600574474	635.9 65	Powling, Suzy	Hamlyn all colour indoor garde
					Davidson, William	
I0445704	B006581	26-05-93	0263775291	ROM	Stirling, Elaine K	Different worlds
I0448308	B006581	26-05-93	037358329X	ROM	Horton, Naomi	No lies between us
I0486282	B006581	18-04-94	072781592X	HIS	Lindsey, Johanna	A pirate's love

APPENDIX 6 - COMPUTER COMMANDS USED IN HOUNSLOW BOOKSHELF

List of readers with code ending in 25

```
...1. PA
...2. SELECT READER WITH @ID LIKE "...25"
...3. SAVE.LIST LISU
```

```
...1. PA
...2. GET.LIST LISU
...3. SORT READER BY @ID TITLE STATUS STATUS.DESC POSTCODE LPTR
```

List of circulation history for all readers with code ending 25

```
...1. PA
...2. SELECT CIRC.HISTORY BY.EXP READER.CODE WHEN ASSOCIATED
     (READER.CODE LIKE "...25"; MOVEMENT EQ "R")
...3. SAVE.LIST LISU1
```

```
...1. PA
...2. GET.LIST LISU1
...3. SORT CIRC.HISTORY BY READEER.CODE READER.CODE DATE STD.NO
     CLASS AUTHOR LPTR
```

APPENDIX 7 - EXAMPLE PAGE OF LOAN RECORDS IN HOUNSLOW

```
SORT CIRC.HISTORY BY READER.CODE READER.CODE DATE STD.NO CLASS TITLE AUTHOR LOCA
TION ID.SUP  LPTR  09:40:18 14 Jul 1994 249
Reader.... Date...... Standard no. Class Title.......... Author.... Location
```

Reader	Date	Standard no.	Class	Title	Author	Location
					va	
D000081525	25-06-94	074724264X	SAGA	Nobody's darling	Cox, Josep hine	BRE:AF
D000081525	13-06-94	0712658459	SAGA	A silver lining	Collier, C atrin	BRE:AF
D000081825	14-05-93	0946429006	641.8 653	101 CAKE DESIGNS	FORD, MARY	BRE:AN
D000081825	31-08-93	0946429014	641.8 653	MARY FORD'S CAKE DESIGNS: ANOTHER 101, WITH STEP-BY- STEP INSTRUCTIONS	FORD, MARY	BRE:AN
D000081825	05-06-93					
D000081825	16-06-93					
D000081825	05-06-93	0356144089	635	GARDENING THROUGH THE YEAR: A MONTHLY GUIDE TO LOOKING AFTER YOUR GARDEN	Evans, Hazel	BRE:AN
D000081825	16-06-93	070636645X	635.9 674	AT THE WATER'S EDGE: GARDENING WITH MOISTURE-LOVING PLANTS	SWINDELLS, PHILIP	FEL:IB
D000081825	05-06-93	0701134852	635	INSTANT GARDENING	CAPLIN, ADAM	BRE:AN
D000081825	05-06-93	000412443X	635.9 33RHO	RHODODENRONS AND AZALEAS. BONAR	Bonar, Ann	BRE:AN
D000081825	16-06-93	1852232951	635.9 674	WATER GARDENS: STEP-BY-STEP TO SUCCESS	Leverett, Brian	BRE:AN
D000081825	05-06-93	1850761876	635.9 4	GARDEN PLANTS FOR FREE	DERRICK, TONY	BRE:AN
D000081825	05-06-93	071120330X	635	LOW MAINTENANCE GARDEN	Rose, Graham	BRE:AN
D000081825	14-05-93	0863187420	635	COUNTRY GARDEN. NEW ED. PHOTOGRAPHS BY JACQUI HURST	Brookes, John	BRE:AN
D000081825	14-05-93	0863187439	635	GARDEN BOOK	Brookes, John	BRE:AN
D000081825	14-05-93	1853911135	641.8 653	CAKE DECORATING : WEDDING DESIGNS. NEW ED	SORBY-HOWLETT, LORRAINE	BRE:AN
D000081825	14-05-93	0747512418	641.8 653	ICING ON THE CAKE: INNOVATIVE CAKES FOR ALL OCCASIONS	ROBINSON, GREG	BRE:AN
D000081825	13-08-93	0747512418	641.8 653	ICING ON THE CAKE: INNOVATIVE CAKES FOR ALL OCCASIONS	ROBINSON, GREG	BRE:AN
D000082525	01-04-93	0285625241	913.4 2	HOW WE FOUND THE MARY ROSE BY ALEXANDER MCKEE	McKee, Alexander	FEL:AN
D000082525	06-05-93	0285625241	913.4	HOW WE FOUND TH	McKee, Ale	FEL:AN