

CRITERIA CHILDREN USE TO CHOOSE BOOKS IN  
SELECTED CHILDREN'S PUBLIC LIBRARIES IN KUALA LUMPUR  
AND PETALING JAYA

SYAHRANAH BINTI AHMAD RAQI

FACULTY OF COMPUTER SCIENCE  
AND INFORMATION TECHNOLOGY  
UNIVERSITY OF MALAYA  
KUALA LUMPUR

2007

CRITERIA CHILDREN USE TO CHOOSE BOOKS IN SELECTED CHILDREN'S  
PUBLIC LIBRARIES IN KUALA LUMPUR AND PETALING JAYA

SYAHRANAH BINTI AHMAD RAQI

A Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree of  
Master of Library and Information Science

FACULTY OF SCIENCE COMPUTER AND INFORMATION TECHNOLOGY  
UNIVERSITY OF MALAYA  
KUALA LUMPUR

2007

## ACKNOWLEDGEMENT

Alhamdulillah, my utmost sense of gratitude goes to Allah for the guides and strengths which allow me to pursue, all that was, is and will be in life.

My greatest debt however must be to Prof. Dr. Zainab Awang Ngah. Her creativity and standards of excellence challenged me to try to produce research that might make a difference.

I thank Assoc. Prof. Nor Edzan Haji Che Nasir for providing me with the SPSS statistic package, and precious assurance, which comforted me during hard times.

Special thanks to the librarians at Kuala Lumpur Children's Library and Bayan Budiman Children's Library, Petaling Jaya, and also to the children who participated in the survey and make this research possible. The children have given me assistance and sometimes entertainment during the course of my research.

Last but not least, I wish to express appreciation to my parents, Mak and Baba; and siblings – Abang, Kak Noha, Kakak and Adik, for their wonderful supports. To Hilmi, Wani and Hamsiah, thank you for the wonderful friendships and learning experiences that we shared. To Hanafi, the 'walking dictionary', I thank you for your companion, encouragement and patience.

## ABSTRACTS

This study aims to determine the frequency and main reasons children visit the public libraries, their companions during the visits, criteria for using the library, their book selection strategies and books preferred, to investigate whether children's demographic profiles are related to frequency, reasons for visits, criteria for using the library, selection strategies and the type of books preferred; to observe their information seeking pattern which explains the choice of books in the libraries, the primary reference sources and services preferred by the children and the problems they faced when using the libraries. A total of 43 children from the ages of seven to twelve years old, are selected as respondents, with 25 of them from Kuala Lumpur Children's Library and 18 of them from the Bayan Budiman Children's Library, Petaling Jaya. Two instruments are used to obtain data, which are unobtrusive observations and structured interviews. The former method involved observing the children's movement from the time they enter the library to the time they select a book to read or borrow. The movements are mapped and translated into a flow chart diagram based on the model proposed by Hayden (2001). What are observed were the children's skills in locating, accessing and using sources found in the library. The behaviours observed are classified into four dimensions adapted from Belkin, et al's (1993) Information Search Strategies which include method of interaction, goal of interaction, mode of retrieval and resource considered. After the observation, the children were approached and interviewed using a structured interview instrument. The results indicate the following; (a) a large number of respondents were frequent visitors, regardless of their age, gender or race; (b) they visited the library to

read and do their revisions; (c) Chinese parents were more involved in their children's choice of books than those from the other racial groups; (d) those who are frequent visitors also have positive feeling towards the library; (e) older children prefer libraries based on the size of their collections rather than the attractive environment, strategic location and activities offered; (f) shelf browsing was the most popular method of choosing a book combined with various strategies such as looking for a book by an author or series; finding a book on a subject, visually or physically scanning and recognizing the physical composition of the book; (g) children select fiction over non-fiction for recreational reading, select books based on the cover, storyline, illustrations, colourful design, typography and prefer books written in English; (h) the searching behaviour respondents exhibited is non-linear in nature; (i) respondents are more likely to refer to their companion such as parents or siblings if they face problems when choosing a book; and (j) the type of problems they face include understanding the standard subject headings and mapping these to their needs, verbalizing their need because of their limited vocabulary skills and they would go to the librarians to locate revision books which they need. In conclusion, children tend to exhibit the same searching behaviour as adult, but they use more visual rather than textual information. Therefore, it is important for the libraries to provide adequate and visually stimulating services and sources to facilitate the children's book searching process.

## TABLE OF CONTENTS

|                                      |     |
|--------------------------------------|-----|
| Acknowledgement                      | i   |
| Abstracts                            | ii  |
| Table of contents                    | iv  |
| List of tables                       | ix  |
| List of figures                      | xii |
| <br>                                 |     |
| <b>Chapter 1 – Introduction</b>      |     |
| 1.1 Background                       | 1   |
| 1.2 Statement of the Problem         | 4   |
| 1.3 Objectives of the Study          | 6   |
| 1.4 Research Questions               | 7   |
| 1.5 Significance of the Study        | 7   |
| 1.6 Assumptions                      | 9   |
| 1.7 Limitations of the Study         | 9   |
| 1.8 Definitions of Terms             | 10  |
| <br>                                 |     |
| <b>Chapter 2 – Literature Review</b> |     |
| 2.1 Children’s Reading Interest      | 12  |
| 2.1.1 Cognitive Development          | 14  |
| 2.1.2 Social Environment             | 17  |

|       |   |    |
|-------|---|----|
| 2.2   | Information Seeking Behaviour of Children                 | 20 |
| 2.2.1 | Information Seeking as an Action Process                  | 20 |
| 2.2.2 | Information Seeking as a Cognitive Process                | 24 |
| 2.2.3 | Information Search Strategies                             | 25 |
| 2.2.4 | Information Seeking Model                                 | 26 |
| 2.3   | Information Literacy Skills                               | 32 |
| 2.3.1 | The Importance of Information Literacy Skills in Children | 34 |
| 2.4   | Information Literacy Programmes                           | 35 |
| 2.4.1 | Information Literacy Programmes in Malaysia               | 35 |
| 2.4.2 | Information Literacy Programmes in Other Countries        | 36 |
| 2.5   | Information Sources and Services for Children             | 38 |
| 2.5.1 | Reference Services for Children                           | 39 |
| 2.5.2 | Information Sources for Children                          | 41 |
| 2.6   | Summary   | 42 |

### **Chapter 3 – Methodology**

|       |   |    |
|-------|---|----|
| 3.1   | Data Collection                                     | 43 |
| 3.1.1 | Research Settings                                   | 43 |
| 3.1.2 | Population and Sample                               | 47 |
| 3.1.3 | Research Instruments                                | 48 |
| 3.2   | Statistical Analysis                                | 55 |
| 3.2.1 | Two Way Contingency Table Analysis Using Cross Tabs | 55 |
| 3.2.2 | Chi Square Significance Test                        | 56 |

|     |         |    |
|-----|---------|----|
| 3.3 | Summary | 57 |
|-----|---------|----|

## **Chapter 4 – Data Analysis**

|       |   |    |
|-------|---|----|
| 4.1   | Demographic Characteristics of Respondents  | 58 |
| 4.2   | Children’s Library Visits : The Background  | 60 |
| 4.2.1 | Frequency of Visits to the Public Libraries   | 60 |
| 4.2.2 | Respondents’ Reasons for Visiting The Public Libraries  | 61 |
| 4.2.3 | Respondents’ Usual Companions for the Visits to the<br>Public Libraries                         | 62 |
| 4.2.4 | Respondents’ Preferred Criteria for using the Public Libraries                                  | 65 |
| 4.3   | Book Selection Strategies   | 67 |
| 4.3.1 | Method of Locating the Books in the Public Library by Respondents                               | 67 |
| 4.3.2 | Types of Books Prefers by the Respondent  | 69 |
| 4.3.3 | Characteristics of Selected Books   | 71 |
| 4.3.4 | Characteristics of Selected Books and Other Variables   | 74 |
| 4.3.5 | Respondents’ Language of Choice   | 78 |
| 4.4   | Problems Faced when Using Reference Sources and Services  | 83 |
| 4.4.1 | Problems Faced in Locating Books and Respondents Preferred<br>Characteristics in Selected Books | 84 |
| 4.5   | Primary Reference Point of the Respondents  | 85 |
| 4.5.1 | Respondents’ Reference Points and their Preferred Characteristics in<br>Selected Books.         | 86 |
| 4.6   | Library Knowledge and Participation   | 88 |



|  |  |     |
|--|--|-----|
| 4.7  | Observed Sequence of Behaviour Exhibited by Children in the<br>Public Libraries          | 90  |
| 4.7.1  | Category 1 Searching Behaviour   | 91  |
| 4.7.2  | Category 2 Searching Behaviour   | 93  |
| 4.7.3  | Category 3 Searching Behaviour   | 95  |
| 4.7.4  | Category 4 Searching Behaviour   | 97  |
| 4.7.5  | Emotion Exhibit by Respondents   | 98  |
| 4.8  | Summary  | 98  |
| <br>   |  |     |
| <b>Chapter 5 – Discussion and Conclusion</b> |  |     |
| 5.1  | Introduction   | 100 |
| 5.2  | Answering Research Questions   | 100 |
| 5.2.1  | The Frequency and Reasons Children Visit the Public Libraries                            | 100 |
| 5.2.2  | Children’s Usual Companions During Library Visits  | 101 |
| 5.2.3  | Children’s Criteria for Using the Public Library   | 102 |
| 5.2.4  | Method Children Use to Select Books to Read or Borrow                                    | 103 |
| 5.2.5  | Information Seeking Patterns of Children in the Public Libraries when<br>Choosing a Book | 113 |
| 5.2.6  | Primary Reference Sources and Services Use by the Children                               | 116 |
| 5.2.7  | Problems Children Face when Using the Public Libraries                                   | 117 |
| 5.3  | Significance and Implications  | 118 |
| 5.4  | Summary  | 119 |

|  |     |
|--|-----|
| <b>Reference</b>   | 121 |
| <b>Appendix</b>  |     |
| A Permission letter to the libraries involved in the research    | 130 |
| B Observation Sheet for Children’s Information Seeking Behaviour | 131 |
| C Questionnaire for Children’s Information Seeking Behaviour     | 132 |

Universiti Malaya

## LIST OF TABLES

|  |    |
|--|----|
| Table 2. 1 – Information Search Process Model  | 30 |
| Table 3. 1 - Possible Combinations of Information Seeking Strategy (ISS) according to Belkin et al. (1993)   | 52 |
| Table 4. 1 – Distribution of Respondents According to Location   | 58 |
| Table 4. 2 – Distribution of Respondents According to Age, Gender and Race   | 59 |
| Table 4. 3 – Frequency of Visits to the Public Libraries   | 61 |
| Table 4. 4 – Reasons for Visiting Public Library   | 62 |
| Table 4. 5 – Respondents’ Companions for the Visits to the Public Library  | 62 |
| Table 4. 6 – Significant Value and Pearson $\chi^2$ for Cross Tabulation and Chi Square Analysis between Types of Companion and Demographical Factors  | 63 |
| Table 4.7 – Relationship between Respondents Being Accompanied by Parents and Race   | 64 |
| Table 4.8 – Preferred Criteria of the Public Libraries   | 65 |
| Table 4.9 – Significant Value and Pearson $\chi^2$ for Cross Tabulation and Chi Square Analysis between Respondents’ Preferred Criteria for Using the Public Libraries and Demographical Factors | 66 |
| Table 4.10 – Attractive Environment as Preferred Criteria and Age Group  | 67 |
| Table 4. 11 – Method of Locating Books in the Public Libraries by Respondents  | 68 |
| Table 4. 12 – Reasons for Visiting and Respondents’ Method of Locating Books.  | 69 |
| Table 4. 13 – Type of Book Usually Read by Respondent  | 70 |

|  |    |
|--|----|
| Table 4. 14 – Relationship Between Type of Books Preferred by the Respondents and Race                       | 70 |
| Table 4. 15 – Characteristics of Selected Books  | 71 |
| Table 4. 16 – Relationship between Choosing Books Based on Interesting Storyline and Age Group               | 72 |
| Table 4. 17 – Relationship between ‘Attractive Illustrations’ as the Preferred Characteristic and Age Group  | 73 |
| Table 4. 18 - Reasons of Visiting and Important Characteristics of Selected Books.                           | 75 |
| Table 4. 19 – Siblings Involvement and Respondents’ Preferred Book Characteristics                           | 76 |
| Table 4. 20 – Characteristics of Selected Books and Types of Books Chosen                                    | 77 |
| Table 4. 21 – Language of Choice by Respondent   | 78 |
| Table 4. 22 – Books Being Borrowed in Malay Language and Race  | 79 |
| Table 4. 23 – Books Being Borrowed in English Language and Race  | 80 |
| Table 4. 24 – Respondents Who Visit The Library With Parents, and Respondents’ Language of Choice (English). | 81 |
| Table 4. 25 – Respondents Who Visit The Library With Parents, and Respondents’ Language of Choice (Malay).   | 82 |
| Table 4. 26 – Problems Faced by Respondents when Choosing Books in the Public Library                        | 83 |

|  |     |
|--|-----|
| Table 4. 27 – Problems Face in Locating Books and Respondents Preferred<br>Characteristics in Selected Books.                            | 84  |
| Table 4. 28 – Primary Reference Point of the Respondents   | 86  |
| Table 4. 29 – Respondents’ Reference Points and Their Preferred Characteristics in<br>Selected Books.                                    | 87  |
| Table 4. 30 – Library Knowledge and Participation of the Respondents   | 88  |
| Table 4. 31 – Relationship between Library Participation and Age Group   | 89  |
| Table 4. 32 – Searching Behaviour in Category 1  | 93  |
| Table 4. 33 – Searching Behaviour in Category 2  | 95  |
| Table 4. 34 – Searching Behaviour in Category 3  | 96  |
| Table 4. 35 – Searching Behaviour in Category 4  | 97  |
| Table 5. 1 – Comparison between Shelves Behaviours Exhibited by the Children and<br>Belkin et al’s Information Seeking Strategies (ISSs) | 108 |

## LIST OF FIGURES

|   |     |
|---|-----|
| Figure 2.1 : Information Seeking Model – Adapted from Wilson and Krikelas | 28  |
| Figure 5.1 : The Non-Linear Information Strategy Model                    | 115 |

Universiti Malaya

# CHAPTER 1

## INTRODUCTION

### 1.1 Background

Since 1995, Malaysian government has declared August as National Reading Month. However, in 2001 the Reading Month was changed to July. This campaign sees the National Library as well as state, municipal, academic and school libraries conducting various reading promotion activities that aims to create an awareness of the importance of reading and to encourage Malaysians of all ages to read from various available reading sources. (PNM, 2003)

*“Rajin Membaca, Pasti Berjaya”* is the theme for the year 2005 National Reading Month. Specifically for children, various activities were organized by the Malaysian public libraries such as story-telling sessions, puppet shows and handicraft workshops. Library Membership Drive was also being conducted to attract the public to register as new members.

However, an increase in membership does not always mean that more books are being borrowed. With numerous facilities being introduced by the libraries such as computers, Internet, audio or video collections and research materials; borrowing books are currently not the primary service sought by the public.

Libraries acknowledged that children have special recreational reading needs and preferences. This is evidenced by the designated children's areas allocated within the library such as the children's section of the National Library. There are also libraries specially built for children such as Kuala Lumpur Children's Library. These libraries are usually well stocked with reference materials, picture books, easy reading materials and popular fiction books. The library's collections are carefully selected to suit the younger readers. However, the reference and information services for children have received not much attention. Children require specific information and reference services that are specially designed to meet their specific information needs, which are different from the adults (Brown, 2004). Walter (2003), in her research on how the public library services to children developed over time, indicated that there is a lack of effort in understanding the appropriateness of services provided to the children. It is important to identify the primary reference and information services suitable for different developmental stages of these children in order to create a framework that could provide better services in the public libraries.

Children seek information in different ways than adults. What kind of information they needed is very much affected by their developmental stage (Brown, 2004). In order to understand how the children select their reading materials or any information sources, one has to know their information need first (Walter, 2003). Several studies have reported that the information seeking process is triggered by the desire or necessity to obtain information to fulfill certain needs (Walter, 2003; Brown, 2004; Shenton 2004a; Shenton & Dixon, 2004a, 2004b).



Mohan (1998) has studied children's information needs from selected regions in Malaysia based on the opinion from the adults who worked closely with the children. His findings indicated that children current available sources might not meet most of the children's information needs. He also stated that lack of communications between children and information providers as well as the ineffectiveness of the information provider contributed to the child not getting the information they needed. As a result, the children in those four regions he studied are found to be information poor.

Meanwhile, studies on information seeking behaviour of children have identified several method used by children in finding information in library environment such as browsing with or without pre-defined goals, using an online catalogue or automated library catalogues and using of other people, which includes peers or librarians (Wicks, 1995; DeAngelo et al, 1997; Cooper, 2002; Fogget, 2003; Shenton & Dixon, 2004a; Shenton, 2004a; Everhart & Hatcher, 2005).

The findings above resemble one of the strategies illustrated in the information seeking models known as Information Search Process Model and Big Six Skills Model (Kuhlthau, 1992; Eisenberg and Berkowitz, 1990; cited in Hayden, 2001). The first model developed by Kuhlthau (1992) based on longitudinal investigation of high school students' information seeking behaviours. Her model involves six stages of search processes namely initiation, selection, exploration, formulation, collection and finally, search closure or presentation. The Information Search Process Model shows that information seeking process includes cognitive and physical processes. Additionally, it

also shows the affective feelings such as anxiety, confusion and confidence interplay as the search for information proceeds. However, this model does not include manipulation of information; which is analyzing, digesting and evaluating.

Another information seeking model, Big Six Skills Model (Eisenberg and Berkowitz, 1990) involves six logical steps or stages; that is task definition, information seeking strategies, location and access, use of information, synthesis and evaluation. This model shows that information seeking is not always a linear process by allowing task or search strategies to be re-defined. It also includes the manipulation of information which is not presented in Kuhlthau's model. This model can also be used for information problem-solving not only in academic situation, but also can be included into everyday life situation.

It is interesting to know whether this information seeking model apply to Malaysian children. However, no studies have been done at full-scale on children's information seeking behaviour in Malaysia. This is not surprising as researchers in Library and Information Science have often found children to be less interesting or less important subjects than the adults (Walter, 2003).

## **1.2 Statement of the problem**

Studies on information seeking behaviour on children and young adult have been conducted extensively in the United States, United Kingdom and Australia. This can be seen from various literatures being published, which indicate the development of Library

and Information Science field in these countries. However, the situation in Malaysia is different since Library and Information Science is only beginning to gain popularity, therefore explains the lack of user studies conducted in this field especially concerning children as the library user (Mohan, 1998).

Although the information seeking behaviour of children has been examined and reported, most of the studies are focused on information seeking of children in a school's media center or school's library where the information needs are either pre-defined by the teachers given for their assignments or of their own interest (Wicks, 1995; Foggett, 2003; Shenton, 2004a; Shenton, 2004b; Shenton and Dixon, 2004b; Everhart and Hatcher, 2005). However, no studies have been done on children's information seeking behaviours in a local public library environment. Children who visit the public library have different reasons for doing so, have different educational level, therefore their information needs will cover vast subject areas. There are many unanswered questions relating to the patterns shown by children when they are selecting books to borrow or browse in the public library such as on what basis they make their selection or the criteria they choose when selecting books. It is important to identify the primary reference and information sources and services suitable for different developmental stages of these children in order to create a framework that could provide better services in the public libraries.

### **1.3 Objectives of the study**

The objectives of this study are;

- a) to ascertain the frequency and the main reasons for children's visit to the library.
- b) to ascertain children's usual companions during the visits.
- c) to find out children's criteria for using the public library.
- d) to investigate children's book selection strategies and books preferred.
- e) to investigate whether children's demographic profiles are related to frequency, reasons for visits, criteria for using the public library, selection strategies, and the type of books preferred.
- f) to observe the information-seeking patterns of children in the public library when selecting a book.
- g) to identify the primary reference sources and services used by the children, if any.
- h) to identify the problem children faced when using the library.

With the above objectives in mind, this study would seek answers to the following research questions.

#### **1.4 Research questions**

There are eight research questions identified below

- a) What are the frequency and main reasons children visit the public library?
- b) Who usually accompanies children during the visits?
- c) What are the criteria children have for using the public library?
- d) What are the strategies used by children to select books for borrowing or browsing in the public library and what are books preferred?
- e) Are children's demographic profile related to frequency, reasons for visits, criteria for using the public library, selection strategies, and the type of books preferred?
- f) What are the information-seeking patterns of children in the public library when selecting or choosing a book?
- g) What are the primary reference sources and services used by the children?
- h) What are the problems children faces when using the library?

#### **1.5 Significance of the study**

The findings from this study can be used by parents to play active roles in their children's reading and intellectual development. Parents who do not have much exposure and knowledge on children's reading interests and needs, can use the outcome of the research to help them in ensuring their children's reading materials are appropriate for their age and within their literacy capability. Parents can also use this study to encourage and enrich their children's library experience. They would be able to not only provide

their children with opportunities to select their own books to borrow in the public library, but also help them to select and discuss reading materials.

Teachers can also benefit from the study. By understanding the children's reading preferences and information needs, teachers can utilise the knowledge to plan and create activities, examples and strategies that could fulfill children's needs at every level of age.

In addition, the outcome of the study will provide valuable information for public libraries that provide services to children, to create a child-friendly environment and services for the children. Firstly, the librarians can use the findings of the study to identify suitable materials and books for children and for developing and managing appropriate collection for children. This will help libraries in drawing up a clearer acquisition policy for the library.

Secondly, from this study, it is hoped that the library could determine the exact level of reference services that should be provided to the children. Library personnel need to have an understanding of the different developmental stage a child goes through, which affects their information needs in order to be able to deliver quality services to these children. From the information seeking patterns shown by these children, the library could anticipate children's need. Thus, creating a more children centered environment in the library. Different user programmes could be planned to educate the children on the organization of a library and get acquainted with the arrangement of collections and facilities available.

Finally, the outcome from this study can also be of some help to the National Library in their practices and policy reviews involving children as library users. National Library can use the findings to formulate marketing strategies in order to attract more children to borrow books and use the public libraries.

## **1.6 Assumptions**

This study is based on the following assumptions. It is assumed that the children who visit the library do so for a reason. It is assumed that the children have some criteria which they operationalized when choosing to borrow or browse books in the library. It is assumed the children has some basic literacy skills such as reading and have understanding of the information they are seeking for.

## **1.7 Limitations of the study**

The study covers only children between the ages of seven to twelve years old. This is according to Creaser and Maynard (2004) in her report entitled “A Survey of Library Services to Schools and Children in the United Kingdom 2003-2004”, which describes the average age of transfer to adult/teenager services is 13 years 0 months.

Due to the constraint of time and monetary cost, the study includes public libraries in the Federal States of Kuala Lumpur and Selangor focusing on the public library of Petaling Jaya, as the core study. The findings therefore will only be applicable

to these libraries. Research is conducted during the weekend for the duration of one month.

The study is conducted in the context of a real public library situation in which children of the age of seven to twelve years old searching for books for a real reading or borrowing purpose. The children had no prior knowledge of the study being conducted, therefore the participation had to be done voluntarily. Although it is acknowledged that some research perspectives may prescribe some sort of measures of control, it is felt that the positive aspects of observing children in an unaffected situations present valuable insights regarding information seeking behaviours that may not be achieved through conduct of an artificially constructed searches.

## **1.8 Definition of terms**

The following terms are defined within the context of this study.

### **Information seeking**

- Information related action or strategy taken by children to fulfill their information needs. It involves formulation of information seeking strategy as an action plan to approach an information source (information bearer), which provides the children with required information.



## **Children**

- The term children in the context of this study refers to the children within the ages of seven to twelve years old. This term would be used interchangeably with respondents and users.

## **Reference services**

- The reference services refers to the functions performed by a trained children's librarian to meet the information needs of children, including answering substantive questions, instructing children in the selecting and use of appropriate tools and techniques for finding information, directing users, assisting in the evaluation of information and participating in the development of children's collection.

## CHAPTER 2

### LITERATURE REVIEW

In order to gain insight on the subject under study, a search was made from the various electronic databases from University of Malaya Library (UML) Web Interaktif such as *Emerald Intelligence*, *Science Direct*, *Proquest*, *ERIC* and *Wilson Web*. Printed materials, periodicals and conference papers from University of Malaya Library and Lee Kong Chian Reference Library, Singapore were also used for studies and issues related to the subject.

The keywords that were used to retrieve the related literature were ‘children’s behaviour’, ‘library catalog’, ‘book selection’, ‘information seeking’, ‘reading interests’, ‘information literacy’ and a combination of these. The findings from the literature are summarized as below.

#### **2.1 Children’s Reading Interest**

The interests of children have been the object of research in library science, education and child psychology. Understanding the general trends of reading interests in children are useful to librarians for developing and managing age-appropriate collections, for marketing and publicizing their collections and for providing interesting and entertaining library user programmes (Wicks, 1995). Teachers can utilize children’s

interests to help focus children's attention on a lesson and plan strategies according to their level of understandings (Sturm, 2003). According to Doiron (2003), from examining the children's reading interests and books they choose for their independent reading, classroom teachers and school librarians can motivate their young readers by providing not only fiction books but also quality information books.

Most of the research is geared towards understanding the interests of children (age six through eleven) or adolescents (ages twelve through eighteen). Many of these studies explore the effect of age and gender on the responses children provide. According to Sturm (2003), most researchers agree on children's reading interests and preferences are often influenced by two common factors; child's age and gender differences. Young children prefer certain topics to others, and gradually these interests change throughout their growing years (Doiron, 2003). There were some topics that appealed more to girls such as animal, literature and careers; and others that were favoured more by boys (sports and transportations) (Sturm, 2003).

However, there are two additional possible influences on reading interest, namely cognitive development and social environment identified by Sturm (2003), Brown (2004) and Cooper (2002). Children tend to enjoy objects when they are very young such as animal and transportations; and more abstract concepts that require advanced cognitive development such as science, literatures, biography, history, computer, careers and sport as they get older. These writers draw from the work of developmental psychologist Piaget to explain how children's reading interests change as the child develops.

### **2.1.1 Cognitive Development**

According to Piaget (1969; cited by Cooper 2002), children in early years (age two to seven) falls into first developmental stage; that is pre-operational stage. In this stage, children are very egocentric, individualistic and self-centered. They view the world from their own perspective and expect others to hold the same point of view (Kuhlthau, 1986 cited by Brown, 2004). They are also incapable of seeing objects as belonging to more than one class. They only have representational thoughts, which enable them to use symbols to represents objects and understand basic number concept (Brown, 2004).

Middle childhood (eight to ten years), or referred by Piaget as ‘concrete operational’ is the second stage of development. Children at the early stage of ‘concrete operational’ age are capable of thinking based on a concrete object or experience (Brown, 2004). They show high interests with objects that are part of their daily lives such as pets and transportation (Sturm, 2003).

Meanwhile, children in the later stage of ‘concrete operational’ development have moved beyond the preoperational focus on representational thinking; which is the ability to use symbols to represent objects, basic number concepts, and the limitations of egocentrism and centration (the inability to attend more than one aspect of stimulus at a time). They have also become more flexible with their thoughts, which allow them to understand changes in objects and perspectives and organize their world through certain logical orders (seriation) and classification. These explain the developing interest in

history, sciences and biography when they approach the ages of nine or ten (Sturm, 2003).

The third stage of developmental is between the ages of 11 and 14 – ‘pre-adolescence’ (Brown, 2004). In Piaget’s terms, the child is moving towards the formal operational stage and started to have a wider range of ability, levels of maturity and differences in personal interests. They have also developed the power of scientific reasoning (formulating hypotheses), prepositional logical and weighing multiple possible solutions to a problem. These cognitive developments resulted in increased interests in sports, computers and careers.

Results from research done on children’s information and reading preferences when they enter a library can be used to provide a possible framework for collection development in school and public libraries. It shows that children need information about a wide array of topics, but that certain areas of the collection may benefit from specialized buying practices.

In his study, Sturm (2003) provided a possible framework for collection development of children’s library. His framework is based on the reading interests of the children, which in return are based on the children’s cognitive development. He stated that books on animals and pets are of principal importance for all ages, but an emphasis could be placed on sources that were appropriate for the 6 through 8 years old who shows the most interest. A selection of science books has to be provided for all ages together

with putting more emphasise on 8 to 12 years olds. For sport books there are two possibilities; (1) collect according to interest, which would lead to buying more books about boys' sports appropriate for eleven through 15 years old, or (2) buy more books for girls to try to influence their reading habits and stimulate their interest in sports.

When reading interests grow in older-children, books in categories appropriate for upper elementary and middle school children may find a larger audience of readers. The biography section should be filled with books suitable for 8 through 10 years old boys and 11 to 14 years old girls, as these two age ranges showed the highest interest in this topic. Interests in history peaked between the ages of 10 and 12 years of age and computers are of interest to girls between the ages of 9 and 11 and boys 12 to 14 years old. Transportation books are of interest to boys prior to age eleven, though books designed for girls on this topic might find a willing readership if there were more study on which vehicles girls like and why (Sturm, 2003).

This framework conforms to the selection criteria proposed by IFLA: Guideline for Children's Library Services (2003) :

“Building collections and services, librarians should choose materials which are :

- High quality
- Age appropriate
- Current and accurate
- A reflection of a variety of values and opinions
- A reflection of local community culture
- And introduction to the global community. ”

IFLA : Guideline for Children's Library Services, 2003.

Libraries acknowledged that children have special recreational reading needs. This is evidence by the designated children's areas that are an integral part of the library and which are well stocked with picture books and easy reading material. Children's fiction is located in a separate area from adult fiction and the transition from early reading to more advanced works is carefully guided. The library's collection of children's non-fiction materials, each often selected by the children's specialist' to suit the younger reader, is also demonstrative of the recognition that children require specific materials to meet their information needs (Brown, 2004).

In a report written by DeAngelo (1997), based on school librarian observations shows that students may have difficulty in choosing reading materials. They selected literary works that were either below or higher for their reading capabilities. Students seem to make their selection based on print size, number of pictures and pages and colourful cover illustrations. It is extremely important to consider these observations and help students develop strategies for selecting books in accordance to the developmental stages of the students.

### **2.1.2 Social Environment**

Besides children's cognitive development, social environment also shape children's reading attitudes and interests (Vygotsky, 1962 and 1978; cited in Sturm, 2003). Children's interests are influenced by whom they interact with and what they studied in schools. In the United States, school curriculum has been organized based on Piagetian principles. For early childhood education system, children are exposed to use

the five human senses to observe things around them (egocentric) such as animals and ecology; and this will change when they approach the next stage of development (age 8-12), where they studied more on changes in animal and plant life cycle and weather systems. They started to make connections between scientific disciplines such as mathematics and sciences. They have move away from egocentrism and are able to express interests in more than one subject. As they grow up, more curriculums are introduced such as workforce development curriculum where students are introduced to career options. Children become increasingly involved in sports and extra-curricular activities in tandem with the maturity of their cognitive abilities and fundamental skills (Sturm, 2003).

In contradiction, changes in school's curriculum and structure could also result in the decrease in children's reading interests and achievement especially when the changes were imposed to the method of teaching children to read. The teachers were expected to be proficient in the imposed method within weeks of trainings (Brandt and Isaacson, 1998). As a result teachers developed their own interpretation, which in return, results in inconsistencies in reading instruction. The school environment therefore, also effects reading achievement. Large classes would result with more students receiving less attention and this would pose a problem especially to children who are poor readers. Therefore, early interventions to affected students are needed in the earlier schooling years. Some school environments do not provide a literate atmosphere; they lack budget to develop collection or may even result in library closure (DeAngelo et al, 1997).



Bruner (1966; cited in Filipenko, 2004) stated that children learn by revisiting the same area of interest and knowledge over and over again, building higher and higher levels of understanding. He suggested that curriculum could be organized on such basis, which he refers to as a “spiral curriculum”. Through a spiral curriculum, children can revisit the same area of interests many times and build more sophisticated levels of understanding with each visit.

Developing the reading habit at an early age also engenders a love of reading in many children. It is widely recognized that creating a conducive environment at home reinforces the reading interests in children (Eyre, 2003). DeAngelo et al (1997) in her report stated that the increase amount of time spend watching television has pushed out other important activities such as reading practice and school’s assignments. Parental involvement in a child’s reading program can make a great difference in the development of that child’s reading ability and interests. Home and family connections are vital in motivating children to read and develop basic skills (Alden et al, 2003). According to Reicheenauer (1994), in a survey conducted by Ridout on 1992 suggests that parental reading proficiency and attitudes toward reading are also important factors in their children’s success and interest in reading. Enjoyment of reading is the most important skill that parents can encourage in their children.

Self-esteem also affects children’s reading development and interest. Children’s self-perceptions would either motivate or inhibit learning. Children, who read well, will read more often, for a longer period of time and make better readers, which will raise their self-image as readers. However, students who picture themselves as poor readers

would try to avoid reading, would not put much effort into it and would not be likely to have a high level of competency in reading (DeAngelo et al, 1997).

## **2.2 Information Seeking Behaviour of Children**

The way children seek information and their skill in doing so is expected to affect their attitude in using or handling sources in a public libraries. Various definitions have been applied to the concept of information seeking. A commonly held view by Cooper (2002), Fogget (2003), Brown (2004), Shenton (2004a), and Shenton & Dixon (2004a), is that information seeking is a general term used for information-related action taken to fulfill an information need. Most of the definitions given for the term stress on the action dimension of the information seeking behaviour. On the other hand, according to the article written by Shenton (2004a) other writers believe that the concept of information seeking does not only consist of finding materials and information to satisfy a need. It is also a cognitive process where one's knowledge states are changed due to the construction of sense and understandings of a certain topic.

### **2.2.1 Information Seeking as an Action Process**

One of the most striking features of the information-seeking activity is the way in which children obtain information via convergent and increasingly focused action moving from macro to micro level (Shenton & Dixon, 2004a), especially where the subject material is sought for school's work. Initial information seeking process consists of the children locating information sources. They would approach different range of information resources such as the library or home collection of materials. Subsequently,

they would locate an information source which they thought is relevant, for example a book; and moved into micro-information seeking behaviour which involved examining certain chapter or relevant sections to satisfy the specific information need (Shenton & Dixon, 2004a; Shenton, 2004a; Fogget, 2003).

There are several methods used by children in finding information in a library environment. Browsing is the most popular searching method in semi-structured situations in which the search is not completely defined. This is especially the case for children who are constantly browsing since they are continuously examining unknown items of information that surround them. Browsing can have a well-defined goal (finding a book by an author), a semidefined goal (find books on a subject), or an ill-defined goal (find something of interest) (Chang, 1995; cited in Cooper 2002). Browsing is also performed when the children select books to read for leisurely purpose. They would select books based on the blurb on the cover followed by genre, author and series (Wicks, 1995). Children seem to make their selection based on print size, number of pictures and pages, and colourful cover illustrations (DeAngelo et al, 1997).

In an observation carried out by Fogget (2003) on primary school students' searching and locating skills, students are known to locate an information source by checking the front cover for relevant pictures for a topic, or the research topic name within the title page, skimming through the book and scanning the index in order to judge the relevancy. However, for children in pre-operational and early concrete operational stage, their literature abilities are limited. They do not have much experience with textual

information searching. Most often they have not been asked to find a certain topic or subject. Rather, they just roamed the children's library and browse through the collection. Their searching method is referred as 'grazing' rather than browsing (Hyman 1972; cited in Cooper 2002).

Another study on children's searching behaviour involves using an online catalog or automated library catalogs. If adult library users had difficulties using these tools, what problems might children have? In a study conducted to test children's searching skills using automated library catalogs, children showed the ability to use browsing modes and keyword systems quite successfully. However, children's searching effectiveness was greatly affected by search topics. The only topics that were consistently easy for the children to find were concrete subjects that were easy to spell (Walter, 2003).

In a review of the literature on children's search engines, Broch (2000; cited in Everhart & Hatcher, 2005) concluded that the types of problems reported when children use OPACs are framing searches using Boolean logic, and the constraint of controlled vocabulary. Children based their search terms on the words within the task sheet provided by their teacher. Children did not comprehend why subject headings were assigned to material and therefore were unable to exploit them while searching. Everhart and Hatcher (2005) concluded that children faced problems with assigning standardized subject headings to materials they needed mainly because they have not developed the ability to recall terms and concepts, they lack knowledge and they have limited vocabulary skills. They possess a wide range of cognitive abilities that affect their searching skills. This

contributed to why children prefer to go directly to shelves to find books, or to ask their friends or a librarian instead of using a library catalogue (Walter, 2003).

Eventually, Everhart and Hatcher (2005) proposed a solution by making comparison between subject headings and actual student vocabulary. The results revealed that only 12 percent of subject headings of Library of Congress Subject Headings (LCSH) matched those headings assigned by students, followed by 31 percent for both LC-AC (a simplified LCSH for juvenile use) and Sears List and astounding 62 percent matched each other's terms. They suggested librarians to include user-friendly terms into the subject field of the book's MARC record. Additionally, children should also be exposed to methods of choosing subject terms to improve their information searching skills.

A study has shown the use of other people to be the most common information-seeking method pursued by children. The popularity of this approach is due to its convenience and also to the fact that conversation is a natural human activity. Young children in pre-operational stage, which have minimum levels of reading ability, rely heavily on other people for audio and visual information source which could not be found in textual information (Shenton and Dixon, 2003).

Children also requested help from other people when they have exhausted their own information resource. In the study conducted by Fogget (2003), children realized

they would have to ask for help from their peers or librarians to address their information needs. They are, in fact still developing their locating and selecting strategies.

### **2.2.2 Information-seeking as a Cognitive Process**

The cognitive dimension of information-seeking is more challenging to examine than the action dimension of information-seeking which is readily observable. The concept of information-seeking goes beyond simply finding materials and information within them to satisfy a need. Dervin (1983), Marchionini (1985) and Kuhlthau (1999) maintain that information seeking may be considered fundamentally a cognitive process. It involves the construction of the senses, understanding and changes to the knowledge state. Information is thought to be the initial state of learning (Shenton, 2004a).

There is a desire among children to enhance their knowledge states. Children would revisit the same area of interests many times to increase their understanding with each visit (Bruner, 1966; cited in Filipenko, 2004). These scenarios often involved either:

- the pursuit of personal interests (children sought to become more familiar with a favourite subject)
- higher phases, learn curriculum content for school examinations where information had to be known and understood (Shenton 2004a).

### 2.2.3 Information Search Strategies

According to Kuhlthau (1992), a strategy is a tactic used while going through information seeking behaviour. There are many types of strategies present in the entire search process such as asking a friend or parents for information or visiting a library (Hayden, 2001). In addition, Belkin et al (1993) in his study stated that information seeking behaviour is characterized by movement from one strategy to another within the course of single search episode. They had proposed a model of information seeking behaviour based upon the concept of multidimensional space of Information Seeking Strategies (ISSs). According to this model, the variety of behaviours being exhibited by people while searching for information can be viewed as Information Seeking Strategy. There are four dimensions of ISSs, being identified such as: (1) method of interaction (scanning-searching), (2) goal of interaction (learning-selecting), (3) mode of retrieval (recognition-sepcification), (4) resource considered (information-meta-information). Hypothetically, any ISSs can be described using a combination of these dimensions. Table 2.1 presents all possible combinations of ISSs according to Belkin et al (1993).

The model from which these Information Seeking Strategies are derived is a simplified view of information seeking reality. Problem areas in this model include the exhaustiveness, validity and independence of the proposed dimension. However, it is hope that this model could represent a useful starting point for characterizing Information Seeking Strategies (Belkin et al, 1993).

Cooper (2002) has adopted the Information Seeking Strategy (ISSs) developed by Belkin et al (1993) for her case study of information seeking behaviour in 7 year old children, in a semi structured situation. She examined and discussed the children's search strategies in the context of computer versus shelf searching and textual versus visual searching. Children were instructed to find information on spiders using CD-ROMs encyclopedias and books. By viewing the recorded session of children's shelf and computer searches, she would noted down the strategies being exhibited using the ISSs model by Belkin et al (1993), in order to gain numerical measure of behavior occurrences or type. Children has showed highly specified search when using a very structured presentation of information in the form of CD-ROM encyclopedias. However, less structured search activity is seen in visual browsing situation, where the children are being presented with pictorial maps. For the shelf searches, children would select the books by the cover. This particular behaviour is the most commonly observed search strategies, which consist of scanning, selecting and recognizing (Cooper, 2002).

#### **2.2.4 Information Seeking Model**

Children show certain patterns of strategies while going through the information seeking behaviour process. According to Kuhlthau (1992; cited in Hayden, 2001) strategy is a tactic used to seek information or to work through a stage of the search process. The strategies can be illustrated to examine what do the children actually do and what are the steps taken when they searching for information (Hayden, 2001).



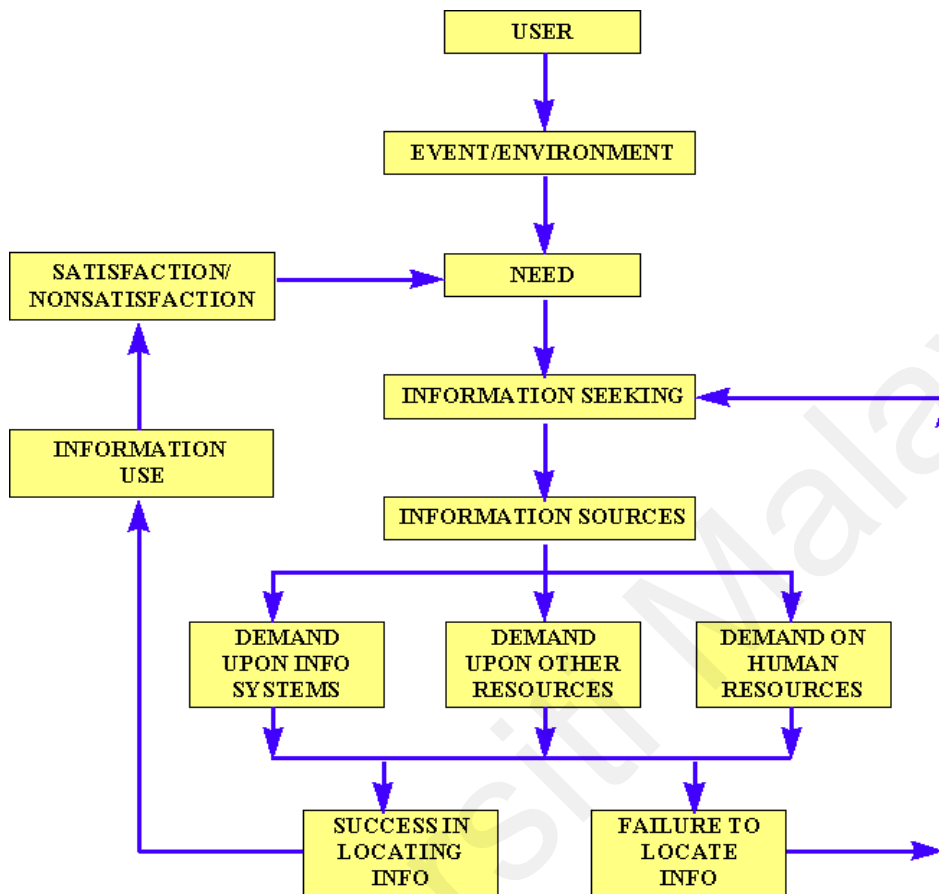
There are three popular models developed based on studies conducted on the user's perspective of information seeking in a library environment which is Information Seeking Model, which Hayden (2001) adapted from Wilson(1981) and Krikelas (1983); Information Search Process Models, developed by Kuhlthau (1992) and Big Six Skills Model; developed by Eisenberg and Berkowitz (1990). Each of the models has their own characteristics and advantages, as well as disadvantages.

**(a) Information Seeking Model**

According to Hayden (2001), Information Seeking Model which is a popular model during the 1980's is adapted from Wilson (1981) and Krikelas (1983). The model illustrates the relationship between the concepts of user, need, uses and user behaviour and is similar to traditional library instructions as it focuses on skill related to sources: location, accessing and using sources. However, this model does not exhibit information manipulative skills such as critical thinking and analysing which is required to use information effectively.

The Information Seeking Model suggested that in a given environment or event the user will perceive an information need. From this perceived need, it will lead the user to search for information using various information sources such as information systems (in this context the information system is the library); human resources (librarians, peers); and other resources (home library or mass media). This will lead to either a success or a failure.

**Figure 2 - 1: Information Seeking Model - adapted from Wilson and Krikelas**



(Source : Hayden, 2001. Available at:

<http://www.ucalgary.ca/~ahayden/model.html>)

If the search is successful, information is located which will be used and may result in the satisfaction or non-satisfaction of the original perceived need. Satisfaction occurs where the located information has been analysed and satisfies the original need and this indicates the end to the information seeking process. Meanwhile, if non-satisfaction occurs, this means the information has not satisfied the original need and the

process may be repeated. If the search is a failure, the process of information seeking is continued and repeated (Hayden, 2001).

**(b) Information Search Process Model**

According to Hayden (2001), Kuhlthau's Information Search Process is unique as it focused on a process approach to library skills and information seeking which is not dependent upon particular sources or libraries. Her model provides a theoretical framework for information seeking rather than on how they manipulate the information. This model is important as it is developed based on longitudinal investigation of high school students' information seeking behaviours. She observed the reactions of students, examined strategies such as journaling, case studies, interviewing, and tracked student progress (Lamb, 2003).

One of the most interesting aspects of Kuhlthau's model is her emphasis on the attitudes and behaviors of students during the process (Lamb, 2003). The model goes beyond the routine of information seeking as it involves three domains; the affective (feeling), the cognitive (thoughts), and the physical (actions and strategies). The model also suggests that the user is an active participant in the information search process and therefore their knowledge grows as they interact with the information. Throughout the process, the student is engaged in cognitive strategies such as brain storming, contemplating, predicting, consulting, reading, choosing, identifying, defining and confirming. There are also affective feelings such as apprehension, confusion, anxiety,

anticipation, doubt, optimism and confidence, which are shown as the search for

| <b>KUHLTHAU'S INFORMATION SEARCH PROCESS MODEL</b> |   |                                      |  |  |
|--|---|--------------------------------------|--|--|
| <b>TASK</b>  | <b>THOUGHTS</b>   | <b>FEELINGS</b>                      | <b>ACTIONS</b>   | <b>STRATEGIES</b>                                      |
| STAGE 1:<br>TASK<br>INITIATION                     | Contemplating<br>assignment<br>Considering<br>possible topics | Apprehension<br>Uncertainty          | Talking with others<br>Browsing library<br>collection          | Brainstorming<br>Discussing                            |
| STAGE 2:<br>TOPIC<br>SELECTION                     | Consider personal<br>interest, project<br>requirements, info  | Confusion<br>Anxiety<br>Anticipation | Consulting with<br>informal mediators<br>Preliminary search of | Discussing possible<br>topics<br>Using general sources |

information proceeds (Hayden, 2001).

**Table 2 - 1 – Information Search Process Model**

|                                       |   |   |   |  |
|---------------------------------------|---|---|---|--|
|                                       | available, time   |   | the library   | for overview of possible topics  |
| STAGE 3:<br>PREFOCUS<br>EXPLORATION   | Become informed about a general topic. Seeking focus, Identifying possible focuses. Inability to precise info needed  | Confusion<br>Doubt<br>Threat<br>Uncertainty   | Locating relevant info<br>Reading<br>Taking notes<br>Making bibliographic citations | Reading<br>Intentionally seeking focus<br>Listing descriptors  |
| STAGE 4:<br>FOCUS<br>FORMULATION      | Predicting outcome Using criteria of personal interest, project requirements, info available, time. Identifying ideas | Optimism.<br>Confidence in ability to complete task   | Reading notes for themes  | Making a survey of notes<br>Listing focus<br>Choosing focus<br>Combining focus                               |
| STAGE 5:<br>INFORMATION<br>COLLECTION | Seeking info to support focus Defining and extending focus Gathering pertinent info Organizing info                   | Realization of among of work to be done<br>Confidence in ability to complete task<br>Increased interest | Using the library<br>Requesting specific sources<br>Taking detailed notes           | Using descriptors to find pertinent info<br>Comprehensive searches<br>Using indexes<br>Requesting assistance |
| STAGE 6:<br>SEARCH<br>CLOSURE         | Identifying need for additional info Consider time restrictions Diminishing relevance Exhausting resources            | Sense of relief<br>Sometimes satisfaction<br>Sometimes dissatisfaction                                  | Rechecking sources<br>Confirming info   | Returning to library to make summary search.<br>Rechecking info  |

(Source: Hayden (2001). Available at: <http://www.ucalgary.ca/~hayden/kuhlth.html>)

- **Big6™ Skills Model**

The Big6™ is an information problem-solving process that incorporates a set of skills, which provide a strategy for effectively and efficiently meeting information needs. It has been used in thousands of K-12 schools (between the ages of 5 years old to 17 years old) in the United States and Canada, higher education institutions, and corporate and adult training programs. Big6™ is proposed by Eisenberg and Borkowitz(1990) and consists of six logical steps or stages. According to Eisenberg (2001), people go through these Big6™ stages either consciously or not when they seek or apply information to

solve a problem or make a decision. It can be used whenever students are in a situation, academic or personal, which requires information to solve a problem, make a decision or complete a task.

The Big6™ Skills involves :

**1. Task Definition**

- Define the information problem
- Identify information needed

**2. Information Seeking Strategies**

- Determine all possible sources
- Select the best sources

**3. Location and Access**

- Locate sources (intellectually and physically)
- Find information within sources

**4. Use of Information**

- Engage (e.g., read, hear, view, touch)
- Extract relevant information

## **5. Synthesis**

- Organize from multiple sources
- Present the information

## **6. Evaluation**

- Judge the product (effectiveness)
- Judge the process (efficiency)

(Eisenberg , 2001)

Hayden (2001) stated that there are basic themes in the Big6™ Skills information problem solving approach which have relevance to library and information skills development. These themes are consider as the advantages of using the Big6™ Skills process for teaching information problem solving skills. Among the themes are:

- Involves critical thinking and problem solving which provide students with skills necessary to manipulate information.
- Acknowledge that information problem solving is not always a linear process as it allows branching and jumping out of sequence. This describes the actual process of information search process.

### **2.3 Information Literacy Skills**

The ability to read and being literate has been recognised as the basic foundation for a child to achieve success in academic as well as in life. However, being literate and knowing how to read but unable to manipulate the gained knowledge is as good as being illiterate.

Information literacy has been the subject of many studies over many years. A review of the literature suggests that in the past, information literacy has most often been described as the ability to locate, manage, and use information effectively for a range of purposes (Filipenko, 2004; Foggett, 2003). The definition of information literacy provided by the American Library Association Presidential Committee on Information Literacy has been widely accepted and has formed the basis for the many other definitions: “To be information literate, a person must be able to recognize when information is needed and have the ability to locate, evaluate and use effectively the needed info” (American Library Association, 1989)

However, recent definitions of the information literacy tend to cover the same elements, but expand on them in one way or another. With the rapid development and usage of technology in library and information science, new definitions appear, which combine the old information skills with the ability to manipulate the new technologies (Eyre, 2003). This can be seen in the definition provided by Online Dictionary of Library and Information Science – ODLIS : “Information literacy is a skill in finding the information one needs, including an understanding of how libraries are organized, familiarity with the resources they provide (including information formats and automated search tools), and knowledge of commonly used research techniques. The concept also includes the skills required to critically evaluate information content and employ it effectively, as well as an understanding of the technological infrastructure on which



information transmission is based, including its social, political, and cultural context and impact.” (ODLIS, 2005).

Another definitions used in the studies conducted by Filipenko (2004) to investigate information literacy development in pre-school children who stressed on critical thinking, ethical use of information in problem solving and the ability to manipulate the information. Thus, an information literate person (Doyle, 1994; cited in Filipenko , 2004) :

- recognizes an information need;
- formulates a question based on information needs;
- identifies or accesses potential information sources;
- develops successful search strategies;
- summarizes and analyses essential information from pertinent resources;
- organizes information for practical application;
- integrates new information into an existing body of knowledge;
- applies information in critical thinking and problem solving.

### **2.3.1 The Importance of Information Literacy Skills in Children**

It has been known that information literacy is now an essential skill for school and academic life as well as for life-long learning. It is essential that children learn the skills of learning how to learn throughout their schooling years in order to become information literate people. Having a basic understanding of the processes and skills involved will be vital for survival in the information age. Knowledge of children’s information literacy

development is valuable for teachers and libraries to help cultivate the skills necessary to become lifelong learners (Filipenko, 2004).

According to Spink (1989; cited in Eyre, 2003), in his work titled *Children as Readers*, there are eight areas of development in which literacy skills, mainly reading, plays a part: physical, intellectual, social, moral and spiritual. Information literacy skills can be developed in children from the ages as young as 4 and 5 years old. Even though most of them are non-readers or beginning readers, they gained understanding of informational texts largely through visual and audio senses. They attend to the unique visual characteristics of informational text and format features such as table of contents and pictorial indexes and they made inquiries in an attempt to gain another's help to understand the subject in hand better (Filipenko, 2003).

It is important for school age children to effectively practise the information literacy skills. Most of the information needs at this stage are driven by assignments given by teachers. Having a basic understanding of locating and selecting sources of information will aid them to answer their research questions (Foggett, 2003).

## **2.4 Information Literacy Programmes**

### **2.4.1 Information Literacy Programmes in Malaysia**

According to survey on reading profile conducted by National Library of Malaysia in 1996 (Siti Aishah, 2003), 93 percent Malaysian aged 10 years and above are literate, while 87 percent practice actual reading. The National Library under the Reading

Promotion division plays a vital role in improving the nation's levels of information literacy. The National Library coordinates and conducts various reading and literacy programmes at national and state level for youth and children. For example, since 2001, July has been declared by the government as National Reading Month. This annual event highlights the importance of reading and inculcating the reading habits amongst Malaysians.

It is also widely recognised that creating a conducive environment at home reinforces the development of information literacy skills. Home libraries competition is organised every two years at state level to encourage parents to set up mini-libraries or reading corners in their homes. This is to encourage children along with parents to make reading a national passion among all Malaysian. There is also a program known as Information Literacy Workshop, which provides trainings for interested groups or individuals in information searching. In this workshop, information literacy skills are taught to children through various activities such as storytelling, puppetry, theatre club, video shows and educational/recreational games (Siti Aishah, 2003).

#### **2.4.2 Information Literacy Programmes in Other Countries**

At the international level, family literacy projects are also widely conducted all over the world. According to Eyre (2003), family plays significant role in enforcing literacy skills in children in United States. This can be seen with comprehensive family literacy programs conducted by American Library Association with the states library.

Through family literacy programs, the home becomes an environment where young minds can grow to their fullest potential, and where parents can play active roles in their children's intellectual development (ALA, 2002). Research at the University of Sheffield by Hannon (1996) resulted in the REAL model, which is a book sharing programmes. In return, this has initiated PRINTS projects in Canada, which advocates that parents should build in a literacy activity with their children each day (Fagan, 2002).

According to DeAngelo et al (1997), parent's involvement in a child's education during the middle school years (ages 10-14) is as "important to a child's success at school as it is in earlier grades". One program that addresses both reading development and parental involvement is Paired Reading, a technique dating back to mid-seventies. Paired Reading recognizes that reading development is linked to reading practice. Parents are trained in a method that deals thoroughly with the concept of how to engage their children in supportive reading practice. Through the use of this program, children, parents, and schools benefit. Not only the children's reading levels and their attitudes toward reading are improved, they also get to spend more quality time with their parents. Parents and schools become partners in the educational process of middle school students who have demonstrated low reading skills.

Australian governments have been committed in improving the nation's levels of information literacy which has had a corresponding impact on the role schools have in the teaching of these processes and skills (Booker, 1993). This is reflected in what teachers and teacher librarians are expected to teach to function effectively in information age.

Information Literacy Planning Overview (ILPO) is a curriculum and lesson planning documents developed by Capra and Ryan (1999) which is used in the classroom as a means of assessing achievements in information literacy in primary school's children. Curricula and curriculum documents are being designed to ensure that the skills needed to operate as an information-literate individual are being taught (Bruce, 1997; cited in Fogget, 2003). One such subject is Information Process Program, an information literature curriculum introduced in schools. In this curriculum, information process consists of six phases; defining, locating, selecting, organizing, presenting and assessing. Students are require to learn a range of six information skills. Each stage requires that students learn a range of information skills and a number of objectives are listed that can help identify when a student has achieved the outcomes (Australian Capital Territory Department of Education & Training and Children's, Youth & Family Services Bureau, 1997; cited in Fogget, 2003).

## **2.5 Information Sources and Services for Children**

The information services in libraries take a variety of forms including direct personal assistance, directory information, signage, locating of information from a reference source, readers' advisory service, dissemination of information in anticipation of user needs or interest, and access to electronic information (Reference and User Services Association, 2000). According to IFLA: Guidelines for Children's Libraries Services (2003), children's services should be taken as important and treated equally with those for adults. Some understanding of children's information needs may be developed

from the record of reference questions that children have asked (Shenton & Dixon, 2004b).

### **2.5.1 Reference Services for Children**

There is a need for public libraries to plan and deliver their services within the developmental limitations of the children in mind. Often the librarian serving the information needs of the 5 to 7 years old or in Piaget's (1969) term 'pre-operational' children, needs to have a good deal of intuition, patience and luck to get further details of the request from the child. It is because children in pre-operational stage lack communication and socialisation skills. For middle childhood children (eight to eleven years old), they have moved away from being egocentric and have a basic need to expand their knowledge base. However, they can only cope with one source of information at a time. Starting from age nine, they may begin to utilise two sources. As the child's logical thought processes develop, basic 'library education' need to be provided as the child can begin, with guidance, to locate items using the catalogue and call numbers. The librarian must monitor the information seeking process without appearing to dominate it. These points have implications for the librarian assisting the early childhood client. When a child requests specific information, they must be led to it and not to be given a call number on a slip of paper or have the 'directional finger' pointed for them (Brown, 2004).

In pre-adolescence children, the ability to think in abstract terms has developed. They can form hypotheses needed for basic research assignments. The references needs

of children are primarily driven by the requirement to seek information to enable them to complete school assignment. (Kuhlthau, 1986; cited in Brown, 2004).

Where children compete with adults for the librarian's attention, an adult request may often be perceived as 'more important'. A child asking a question in the library should receive the same level of guidance and assistance, as does the adult patron.

**(a) Queries**

There are two types of queries relevance to children's reference work. 'imposed' queries and 'self-generated' queries. According to Gross (1997 & 1999), imposed query is the process of seeking information on behalf of other people. The question they are seeking answers to is not one of their own choosing. Instead they are mandated by adults rather than self-initiated by children. Usually the references need at this stage is attributed to school assignments and classroom obligations.

'Self-generated' queries are commonly found in younger children. Most often they have not been asked to find a certain topic or subject. Topics of their own choosing are usually based on their personal interests. Therefore they do not have any queries imposed on them yet. However, as the child mature their literacy skills increased. Thus, making imposed questions more possible (Gross, 1997; Everhart & Hatcher, 2005).

Imposed queries add an element of difficulty to the reference transactions. Children may be lacking in the knowledge of the topic. This, coupled with poor

communication skills and limited ability to express the request in a logical manner would pose problem for the reference librarian to address the children's information needs. The children may not be able to complete the assignments they are given (Gross, 2000; Kuhlthau, 1986 cited in Brown, 2004).

**(b) Reference interview**

This is also a distinguishing component of reference work with children. The three parties in the reference interview are the librarian, the child and the adult who accompanied the child to the library. The role of the adult varies and could assist or complicate the interview process. The adult could participate as a role model by demonstrating the negotiating process for the child or act as mediator between the child and librarians (Gross, 1999). This is especially helpful since small children have difficulty in expressing their needs. But when the adult takes on the role of gatekeeper – making sure that the child has access to or is denied access to certain resource; the process becomes complicated. The librarian has to provide an answer which satisfies both parties and avoids alienating either (Horning, 1994; cited in Brown, 2004).

**2.5.2 Information Sources for Children**

Children in primary school level are able to identify and locate possible sources of information in the library. They have realized the worth of looking beyond one source of information. They also started to develop competencies such as assessing the usefulness of an information source, choosing other sources if the first source does not provide all necessary answers and summoning up prior knowledge (Brown, 2004).



Common problem surrounding in the use of books as primary source of information is cognitive demands. Children often found it difficult to comprehend texts that were unfamiliar to them, especially when it is not their own – borrowed from the public library, borrowed from school or those provided by adults at home. ‘Information density’ is also a problem where the children struggle when working with books that were less concise and less ‘topic-oriented’ than teacher-written sources. The problems of some children were simply due to their reading volumes that were inappropriate to their age (Shenton, 2004b).

## **2.6 Summary**

In order to study the criteria children use to choose books in the public libraries, various topics in Library and Information Science as well as Psychology has to be covered. The children’s reading interests are contributed to their cognitive development and social environment. The information seeking behaviour of the children are consisting of different strategies; with the search become increasingly focus. However, most of the studies in the information seeking behaviours are being conducted in a controlled environment, with pre-determined topic to search by the children.

## CHAPTER 3

### METHODOLOGY

#### 3.1 Data Collection

##### 3.1.1 Research Settings

The study is conducted in Kuala Lumpur and Petaling Jaya. Two libraries are selected for the studies, namely Kuala Lumpur Children's Library and Bayan Budiman Children's Library, Petaling Jaya. Both libraries are selected using convenience sampling based on the list of public and community libraries obtained from National Library's website. The libraries are selected based on these criteria:

- The library is located in urban areas and are therefore easily accessible by the public.
- The library provides services for children by allocating special section for children's collection and materials. It also provides lending and reference services that allow access to various materials.
- The book collections of the library consist of reading material, both fiction and non-fiction, in Bahasa Melayu or English, which appropriate for children between the ages twelve and below.
- Each section in the library is being labeled properly and the layouts are being constructed in an open manner which could assist the researcher to conduct observations without interrupting other users in the library.

The Chief Librarians from both libraries are informed through a letter asking for their consent before proceeding with the research. Copies of questionnaire and observation sheet are also attached to the letter for their references. In order to meet the expectation of thirty to forty respondents, the study is conducted during opening hours of the libraries on every weekend for a period of one month, starting from 29<sup>th</sup> April 2006 until 28<sup>th</sup> May 2006.

Below is the list of the libraries involved and its background.

**(a) Perpustakaan Kanak-kanak Kuala Lumpur (Kuala Lumpur Children's Library)**

Kuala Lumpur Children's Library (Perpustakaan Kanak-Kanak Kuala Lumpur) is previously known as Pustaka Peringatan Kuala Lumpur. Since 2004, the library is managed by Kuala Lumpur City Council. The whole two storey building is designated for the children's library and is situated at Jalan Raja Laut, opposite Dataran Merdeka. For a registration fee of RM6, any children between the ages of 4 to 12 years old, who is also a resident of Federal Territory of Kuala Lumpur or nearby, can register as a member. To this date, there are 4,015 children who have registered.

This library provides an environment which encourages children and parents to visit. The ground level has a spacious sitting area with plenty of tables and chairs as well as lounge sofas suitable for children use. There are various sections on this floor allocated for different type of books such as Malay Fiction, English Fiction, Malay Non-fiction,

English Non-fiction, Picture Books, New Arrival Books and Magazine. The books are organized according to the Library of Congress Subject Headings. The signage at the side of each shelf indicates the starting and ending of the books' call number. There is also a Hypermedia Room equipped with computer and Internet facilities for the children to use. Each section and room is labeled accordingly.

Meanwhile, the upper floor is used to house additional books such as Folklore Books, Book Start Collection (for children ages four and below), Reference Collection, Award Winning Books and Special Collection. Besides that, the library also provides Discussion Room, Activity Room, AV Room and Multimedia Room which is used for functions. Again, each section and room is labeled clearly.

Among the services available for the children are:

- Loaning Service – children are allowed to borrow a maximum of 5 books for a period of three weeks. Children can only borrow fiction books, non-fiction books, picture books, folklore books and book starter collection (targeted for children below the ages of four years old).
- Reference Service – children are provided access to the books which are not available for loaning, only for reading or reference within the library. Among the books available for reference are award winning books, reference and special collections such as encyclopedias and reference books.
- CyberKids Programme – a computer class programme conducted in the Multimedia Room on second, fourth and fifth Saturday.

**(b) Perpustakaan Kanak-kanak Bayan Budiman, Petaling Jaya. (Bayan Budiman Children's Library, Petaling Jaya)**

Bayan Budiman Children's Library is located at the ground floor of Petaling Jaya Community Library in Section 3, Jalan Selangor, Petaling Jaya. The library begins its operation in the current building since April 2000. The library building is strategically located near residential areas, schools and hospital which are densely populated. The children's library membership is open to all Malaysian children from the ages of four to twelve years old as well as their parents. The registration fee is RM31 per person, and the subsequent annual fee is RM15 per year.

This children's library is smaller in size as compared to Kuala Lumpur Children's Library. However, it provides various reading materials for the children. The library is divided into 4 major sections namely Fiction Books, Reference Books, Picture Books and Activity Area. The sitting area is a bit crowded especially during public holidays and weekends. The collection of books has increased through the times and can be seen through overflowing shelves, books being stacked horizontally and unorganized books left on trolleys and tables.

Among the services available for the children are:

- Loaning Service - children are allowed to borrow a maximum of 2 books for a period of three weeks. Children can only borrow fiction books, reference books (green label only) and picture books.

- Reference Services - children are provided access to the books which are not available for loaning which is labeled red. Among the books available for reference are encyclopedias, picture dictionaries and revision books.
- Board games – children can loan board games only for internal use. Among the board games available for loaning are Chess, Sahibba and Saidina.

The library has also organized interesting activities during weekends and schools' holidays in order to attract more children to visit the library. Among the activities are storytelling sessions, art and craft workshops as well as various contests for children to participate.

### **3.1.2 Population and Samples**

According to Triola (2001, p 4), a population is the complete collection of all elements to be studied. Meanwhile a sample is a sub collection of elements drawn from a population. For this study, the population is library users who borrow or browse books from the children's section of the selected public libraries in the Federal Territory and the state of Selangor. As for the sample, it is decided that the subject for this research is children between the ages of seven to twelve years old who borrow or browse books from the selected public libraries in Kuala Lumpur and Petaling Jaya namely Kuala Lumpur Children's Library and Bayan Budiman Children's Library, respectively.

A total of 43 children have been selected as the subjects for the study, with 25 children from Kuala Lumpur Children's Library and 18 from Bayan Budiman Children's Library, Petaling Jaya. The subject is selected using random sampling technique. A starting point is determined by the first children who entered the library with a purpose of selecting books to borrow or read. The child is then observed for fifteen to twenty minutes before being approached for focus interview, which would take another five to ten minutes. After the session ended, the next child who entered the library is selected as a sample and the same procedure is repeated. The procedures for the observation and focus interview are explained further in the next section.

### **3.1.3 Research Instrument**

There are two instruments used to obtain data for this study, which are unobtrusive observation and structured interviews. A pilot-study is conducted before the actual observation sessions to familiarize each of the library settings and also to locate strategic points which enable researcher to study the respondents from afar. The same goes before administering the actual questionnaire to the children in order to iron out any misunderstanding of questions, or inappropriate responses. This would increase the likelihood of success of data collection for this study (Van Teijlingen and Hundley, 2001).

**(a) Observation**

For this study, unobtrusive observation is employed to collect data on the movement of the children when they entered the libraries until they have selected a book to read or borrow. This movement is categorized as the information seeking process before book is selected. During the observation, researcher remains apart from the subject but carefully observes the behaviour of subject. This method is particularly suitable for data collection with young children whose oral and written language skills are not well developed. (McKehnie, 2000). The subjects are observed for fifteen to twenty minutes in order to identify the information seeking process, behaviours being exhibited by the children during their shelf search and also occurring interactions between respondents and reference sources. The movements of the children from the moment they enter the library until they have selected a book are also being mapped and translated into a flow chart diagram, which is based on the model proposed by Hayden (2001) that uses a combination of previous information seeking model from Wilson's (1981) figure of *Interrelationships among areas in the field of user studies* and Krikelas' (1983) model of *Information seeking behavior*. The model illustrates the relationship between the concepts of user, need, uses and user behaviour. The rationale behind using this model is it focuses on skill related to locating, accessing and using sources found in the libraries. The model also suggested that in a given environment or event the user will perceive an information need. From this perceived need, it will lead the user to search for information using various information sources such as information systems (in this context the information system is the library); human resources (librarians, peers); and other resources (home library or mass media). This will lead to either a success or a failure. If



the search is successful, information (the book) is located which will be used and may result in the satisfaction or non-satisfaction of the original perceived need. Satisfaction occurs where the located information has been analysed and satisfies the original need and this indicates the end to the information seeking process. Meanwhile, if non-satisfaction occurs, this means the information has not satisfied the original need and the process may be repeated. If the search is a failure, the process of information seeking is continued and repeated. Each of the steps that one uses while going through the information seeking behavior process, as outline in the model, may be referred to as strategies. Kuhlthau (1992) defines a strategy as a tactic used to seek information or to work through a stage of the search process. That is, the entire search process is composed of strategies. A strategy may be asking a sibling, friend or parent for information (human resources), visiting the library, searching from one shelves to another (information systems). Some information seeking behavior may require only one strategy such as locating the book at a shelf only. When all the needed information is found, which results in satisfaction of the user's information need, the search process is ended. Some information seeking behavior may require many strategies with the user calling upon a variety of information sources, such as revisit the same shelves, or begin another search at different shelves, because the information need is not thoroughly satisfied.

Subsequently, the behaviours observed during the shelf searches are classified to four dimensions or factors termed as Information Search Strategies (ISS) adapted from Belkin et al (1993). The dimensions are:

1. Method of interaction
  - a. Scanning - looking around for something interesting
  - b. Searching - looking for a specific known item
2. Goal of interaction
  - a. Learning – inspecting items and their contents; or browsing among item descriptor
  - b. Selecting – identifying useful items
3. Mode of retrieval
  - a. Recognition – looking around in a group of items
  - b. Specification – searching for items on some identified topic
4. Resource considered
  - a. Informations item – interaction with descriptors or organization scheme of items such as bibliographic list or table of contents
  - b. Meta-information/information – information items themselves (books or articles)

**Table 3. 1 - Possible Combinations of Information Seeking Strategy (ISS) according to Belkin et al. (1993)**

| No. | METHOD |        | GOAL  |        | MODE      |         | RESOURCE |      | TYPE OF SEARCH STRATEGY                            |
|-----|--------|--------|-------|--------|-----------|---------|----------|------|--|
|     | Scan   | Search | Learn | Select | Recognize | Specify | Info     | Meta |  |
| 1   | x      |        | x     |        | x         |         | x        |      | Unspecified search<br>↓<br>Highly specified search |
| 2   | x      |        | x     |        | x         |         |          | x    |  |
| 3   | x      |        | x     |        |           | x       | x        |      |  |
| 4   | x      |        | x     |        |           | x       |          | x    |  |
| 5   | x      |        |       | x      | x         |         | x        |      |  |
| 6   | x      |        |       | x      | x         |         |          | x    |  |
| 7   | x      |        |       | x      |           | x       | x        |      |  |
| 8   | x      |        |       | x      |           | x       |          | x    |  |
| 9   |        | x      | x     |        | x         |         | x        |      |  |
| 10  |        | x      | x     |        | x         |         |          | x    |  |
| 11  |        | x      | x     |        |           | x       | x        |      |  |
| 12  |        | x      | x     |        |           | x       |          | x    |  |
| 13  |        | x      |       | x      | x         |         | x        |      |  |
| 14  |        | x      |       | x      | x         |         |          | x    |  |
| 15  |        | x      |       | x      |           | x       | x        |      |  |
| 16  |        | x      |       | x      |           | x       |          | x    |  |

The model from which these Information Seeking Strategies (ISS) are derived is a simplified view of information seeking reality. Problem areas in this model include the exhaustiveness, validity and independence of the proposed dimension. However, it is hope that this model could represent a useful starting point for characterizing Information Seeking Strategies (Belkin et al, 1993). The same model is used by Cooper (2002) for her case study of information seeking behaviour in 7 year old children in semi-structured situation. The ISS model could provide more comprehensive information on the criteria children use to select the book and what are the criteria they use, which can be used together with data obtained from the focus interviews to flow chart the choosing and aselecting process adopted by the children.

## **(b) Structured Interviews and Questionnaires**

After being observed, the children are approached and interviewed using a structured interview instrument. Since the respondents are children age between seven to twelve years old, this session is personally administered by conducting interviews with these children in order to fill out a set of questionnaire. The questionnaire is given to the respondents as a reference, while the researcher will read out the questions and choice of answers. This way, questions can be clarified and additional information can be obtained by asking follow-up questions whenever necessary. This procedure is carried out for a period of 10 minutes and is expected to elicit information on the following matters:

1. Demographical data of the respondents
  - Age
  - Gender
  - Race
2. Information about the respondents library background
  - Frequency of visits
  - Reasons of visits
  - Companion during the visits
  - Preferred criteria of the library
3. Book selection criteria
  - Method of choosing books
  - Characteristics of selected books
  - Type of books
  - Language read

4. Reference source
  - Type of problems frequently experienced
  - Primary reference point
5. Library awareness and participation
  - Knowledge of the library
  - Participation in the activities

Before starting the interview session, a brief introduction to the researcher and the purpose of the study are explained to the respondent. The parents' permission is also asked before hand in some instances where the parents are present. The interview session is done either in Malay or English, depending on which language the respondents are more comfortable to converse with.

During the interview, some of the questions have to be repeated and rephrased for the respondents to understand and provide accurate answers. At times, the parents insist on staying through out the session, which could be an advantage as well as disadvantage for the research. The advantage is that the parents could help in clarifying certain questions to the children especially when they are not fluent in either English or Malay. However, the disadvantage would be the respondents would depend on the parents for answers, which in return could affect the result of the data.

## **3.2 Statistical Analysis**

In analyzing and presenting the research findings in this study, the Statistical Package for Social Science (SPSS) Ver. 13.0 is employed. The variables associated with the study are displayed in frequency tables. Each of the variables is then tested against controlled variables which are age group, gender and race to examine whether any of the variables are independent or not using a combination of two way contingency table analysis (cross tabs) and chi-square significance test. According to Garson (2005), a chi-square probability of 0.05 or less ( $p < 0.05$ ) is commonly interpreted by social scientists as justification for rejecting the null hypothesis that the row variable is unrelated (that is, only randomly related) to the column variable. For variables which have shown statistical and significant relationship, the results is presented in two way contingency table along with the chi-square value and its probability value. The analyses used in the study are described further in the following section.

### **3.2.1 Two Way Contingency Table Analysis Using Cross Tabs**

According to Connor-Linton (2003), cross tabulations are the most suitable method for analyzing relationship between nominal and ordinal variable. A two-way contingency table analysis evaluates whether a statistical relationship exists between two variables. The table consists of two or more rows and two or more columns. Each row represents the different levels or categories of one variable and the columns represent different levels or categories of second variable. Meanwhile, a cell frequency for particular row and column represents the number of individuals in a study who can be cross-classified as belonging to that particular level of the row variable and that particular

level of the column variable. Analyses of the two-way contingency tables focus on these cell frequencies to evaluate the statistical relationship between the row and the column variables in the population.

### **3.2.2 Chi-Square Significance Test**

Chi-square significance test is a procedure to test the hypothesis of no association of columns and rows in tabular data (Garson, 2005). It means the chi-square test is used to examine whether two variables are independent or not. However, it cannot address questions of which is greater or less. For example, using the chi-square test, researcher cannot evaluate directly the hypothesis that boys visit the public library less than girls; rather it can only test whether the two variables are independent or not.

These assumptions are made when using chi-square significance test (Garson, 2005; Connor-Linton, 2003):

- The sample must be randomly drawn from the population.
- Data must be reported in raw frequencies (not percentage).
- Adequate cell sizes are assumed - A common rule is 5 or more in all cells of a 2 by 2 table, and 5 or more in 80% of cells in larger tables, but no cells with zero count. When this assumption is not met, Yates' correction is applied.

- Non-directional hypotheses are assumed - Chi-square tests the hypothesis that two variables are related only by chance. If a significant relationship is found, this is not equivalent to establishing the researcher's hypothesis that A causes B, or that B causes A, but rather A and B are related
- Finite values – observations must be grouped in categories.

### **3.3 Summary**

This chapter presents the methodology used in conducting the study. Two libraries are sampled, which is Kuala Lumpur Children's Library and Bayan Budiman Children's Library, Petaling Jaya. A total of 43 respondents from both libraries are being selected using random sampling technique. The respondents are being observed and interviewed, and the data collected are analysed and presented in flow chart diagram.



## CHAPTER 4

### DATA ANALYSIS

This chapter presents the analysis of data and the findings of the study. The participants in this study are children between the ages of seven to twelve years old who visit the children's sections of the selected public libraries in Kuala Lumpur and Petaling Jaya. This study is conducted during the libraries' opening hours every weekend in a period of one month starting from 29<sup>th</sup> April 2006 until 28<sup>th</sup> May 2006.

#### 4.1 Demographic Characteristics of Respondents

**Table 4. 1 – Distribution of Respondents According to Location (n=43)**

| Library   | Count | Percentage (%) |
|---|-------|----------------|
| Bayan Budiman Children's Library, Petaling Jaya | 18    | 41.9           |
| Kuala Lumpur Children's Library                 | 25    | 58.1           |

Table 4.1 shows the distribution of respondents according to research location. A total of 43 respondents are involved in this study. The numbers of respondents from Bayan Budiman Children's Library, Petaling Jaya are lower than those from Kuala Lumpur Children's Library because; (1) the first library is closed on the first and third Saturday and Sunday of the month, while the latter closed on first and third Saturday, and first Sunday of the month; and (2) shorter period of opening hours on Sundays for the first library which is from 10.00am – 2.00pm as opposed to the latter which is 11.00am – 5.00pm.

Table 4.2 shows the distribution of respondents according to their demographical background which is gender, age and race. From the gender perspectives, girls make up more than half of the total number of respondents with a total of 24 respondents (55.8%) followed by the boys with 19 (44.2%). Meanwhile, 14 (32.6%) of the respondents are between the ages of seven and nine years old. More than half of the respondents (29, 67.4%) are between the ages of ten to twelve years old. The mean value for respondents age is 9.98.

**Table 4. 2 - Distribution of Respondents According To Age, Gender And Race**

| <b>Demographic Background</b> | <b>Count</b>              | <b>Percentage (%)</b> |
|-------------------------------|---------------------------|-----------------------|
| <b>Gender</b>                 |                           |                       |
| Boys                          | 19                        | 44.2                  |
| Girls                         | 24                        | 55.8                  |
| <b>Age</b>                    |                           |                       |
| 7 to 9 years old              | 14                        | 32.6                  |
| 10 to 12 years old            | 29                        | 67.4                  |
| Mean: 9.98                    | Standard Deviation: 1.611 |                       |
| <b>Race</b>                   |                           |                       |
| Malay                         | 13                        | 30.2                  |
| Chinese                       | 17                        | 39.5                  |
| Indian                        | 13                        | 30.2                  |
| <b>Total</b>                  | <b>43</b>                 | <b>100.0</b>          |

The total number of respondents according to race is distributed quite evenly. Table 4.2 illustrates that the number of Chinese children involved in the study is slightly higher, that is 13 (39.5%), compared to Malay and Indian with 13 (30.2%) of the total number of respondents, respectively.

## **4.2 Children's Library Visits : The Background**

During the course of interviews, respondents are asked to provide information concerning their library experience based on their past and present visits. This would provide additional background information which could supplement the findings in latter sections. The variables which are being evaluated for library experience are frequency of visits to the public libraries, reasons for visiting the libraries, respondents' companion during the visits and respondents' preferred criteria of the visited libraries.

### **4.2.1 Frequency of Visits to the Public Libraries**

Table 4.3 indicates the frequency of visits to the libraries by the respondents. The majority of the respondents visit the libraries every week, which is 15 (34.9%) out of the 43 respondents. This is followed by the respondents who visits the libraries every two weeks (12, 27.9%), once a month (8, 18.6%), and every three weeks (3, 7.0%). The remaining 5 (11.6%) respondents are either a first-time visitor or an occasional visitor who visits the libraries during school holidays.

However, there are no significant differences when cross tabulating frequency of visits with the demographic variables that is age group ( $\chi^2=20.805$ ,  $p=0.703$ ), gender ( $\chi^2=5.054$ ,  $p=0.409$ ), and race ( $\chi^2=6.242$ ,  $p=0.794$ ).

**Table 4.3 - Frequency of Visits to the Public Libraries (n=43)**

| Frequency of visits | Count | %    |
|---------------------|-------|------|
| Every week          | 15    | 34.9 |
| Every 2 weeks       | 12    | 27.9 |
| Every 3 weeks       | 3     | 7.0  |
| Once a month        | 8     | 18.6 |
| Others              | 5     | 11.6 |

#### **4.2.2 Respondents' Reasons for Visiting Public Libraries**

Respondents were asked to provide reasons for their visits to the libraries. Table 4.4 indicates the two reasons provided by the respondents for visiting the public library of their choice. A large number of respondents visit the public libraries for reading or borrowing books (30 or 90.7% of total respondents). Only a small number of the respondents visit the public libraries to study or do revision for their upcoming examinations (4, 9.3%). It is interesting to find out that regardless of age, gender and race the respondents use the libraries to obtain additional reading material for recreational reading, to be read either at home or in the library.

Cross tabulation and chi-square analysis is conducted between reasons for visiting the public libraries and gender ( $\chi^2=0.658$ ,  $p=0.417$ ), age ( $\chi^2=6.125$ ,  $p=0.294$ ) and race of the respondents ( $\chi^2=4.707$ ,  $p=0.095$ ), showed no significant difference.

**Table 4. 4 - Reasons for Visiting Public Libraries (n=43)**

| <b>Reason for visiting</b> | <b>Count (n=43)</b> | <b>%</b> |
|----------------------------|---------------------|----------|
| Read / Borrow books        | 39                  | 90.7     |
| Do revision / Study        | 4                   | 9.3      |

#### **4.2.3 Respondents' Usual Companions for the Visits to the Public Libraries**

**Table 4. 5 - Respondents' Companions for the Visits to the Public Libraries**

| <b>Accompanied by</b> | <b>Count</b> | <b>%</b> |
|-----------------------|--------------|----------|
| Parents               | 31           | 72.1     |
| Siblings              | 21           | 48.8     |
| Friends               | 4            | 9.3      |
| Others                | 3            | 7.0      |
| On their own          | 2            | 4.7      |

\*Respondents can indicate more than one companion.

Table 4.5 illustrates the children's companions during their visits to the public libraries. A large number of respondents visit the public libraries accompanied by their parents, which is 31 (72.1%) out of the total number of respondents. Nearly half of the

respondents (21 or 48.9%) stated that on most occasions, their siblings has accompanied them to the public libraries. 4 (9.3%) visit the public libraries with friends, 2 (4.7%) usually come on their own and 3(7.0%) visit the public libraries accompanied by others. These “others” include; uncles, aunties and grandparents.

The variable respondents’ companion for the visits to the public libraries is a multiple response item. Therefore, the multiple-response item is being recoded as a set of separate variables. These variables are then being evaluated individually using the combination of cross tabulation and chi-square analysis to investigate any clear relationship with age group, gender and race. The results are shown in the Table 4.6.

**Table 4. 6 – Significant Value and Pearson  $\chi^2$  for Cross tabulation and Chi Square Analysis between Types of Companion and Demographical Factors**

| Accompanied by | Demographical Factors    |                          |                            |
|----------------|--------------------------|--------------------------|----------------------------|
|                | Age Group                | Gender                   | Race                       |
| Parents        | $\chi^2=4.768$ , p=0.445 | $\chi^2=2.484$ , p=0.115 | $\chi^2=11.558$ , p=0.003* |
| Siblings       | $\chi^2=8.436$ , p=0.134 | $\chi^2=1.118$ , p=0.290 | $\chi^2=0.660$ , p=0.719   |
| Friends        | $\chi^2=4.898$ , p=0.428 | $\chi^2=3.491$ , p=0.062 | $\chi^2=0.846$ , p=0.655   |
| Others         | $\chi^2=3.740$ , p=0.587 | $\chi^2=2.553$ , p=0.110 | $\chi^2=2.701$ , p=0.259   |
| On their own   | $\chi^2=4.166$ , p=0.526 | $\chi^2=0.029$ , p=0.865 | $\chi^2=1.371$ , p=0.504   |

\* required p value for significance (p<0.05)

From Table 4.6, the only variables which show significant relation is between the race (Chinese, Malay, Indian) and parents as usual companions for the respondents to the libraries (Yes and No) with  $p=0.003$ , and Pearson  $\chi^2 = 11.558$ . Cross tabulations between the other variables and demographic factors did not indicate any significant differences.

A 3 x 2 contingency table analysis is conducted to assess the relationship between the race (Chinese, Malay, Indian) and parents as usual companions for the respondents to the libraries (Yes and No). Table 4.7 shows that the percentages of respondents who come to the libraries with their parents are significantly greater among the Chinese race as opposed to the Indians and Malays. Nearly all of the Chinese respondents (16, 94.1%) are usually being accompanied by their parents during their visit to the public libraries compared to 10 (76.9%) for Indian respondents and 5 (28.5%) for the Malay respondents.

**Table 4. 7 - Relationship between Respondents Being Accompanied by Parents and Race**

| Race    | Accompanied by Parents |            | Total     |
|---------|------------------------|------------|-----------|
|         | Yes                    | No         |           |
| Chinese | 16 (94.1%)             | 1 (5.9%)   | 17 (100%) |
| Malay   | 5 (38.5%)              | 8 (61.5%)  | 13 (100%) |
| Indian  | 10 (76.9%)             | 3 (23.1%)  | 13 (100%) |
| Total   | 31 (72.1%)             | 12 (27.9%) | 43 (100%) |

Pearson  $\chi^2 = 11.558$ ,  $p = 0.003$

#### 4.2.4 Respondents' Preferred Criteria for Using the Public Libraries

When asked what are the criteria or aspects of the public libraries they like the most, Table 4.8 shows the majority of the respondents are attracted by the large collection of books being offered by the libraries (36, 83.7%), the attractive environment of the libraries (8, 18.6%) and the strategic location of the public libraries and the distance to their home or school (4, 9.3%). Only 1 (2.3%) choose the public libraries as his/her favourites based on the activities being offered.

**Table 4. 8 - Preferred Criteria of the Public Libraries**

| Preferred Criteria                     | Count | %    |
|--|-------|------|
| Large book collection                  | 36    | 83.7 |
| Attractive environment / Nice ambience | 8     | 18.6 |
| Strategic location                     | 4     | 9.3  |
| Library activities                     | 1     | 2.3  |

\* Respondents can indicate more than one criteria

The variable respondents' preferred criteria of the public libraries are also a multiple response item. The multiple-response items are being recoded as a set of separate variables. These variables are then being evaluated individually using the combination of cross tabulation and chi-square analysis to investigate any clear relationship with age group, gender and race from the value of significance ( $p < 0.05$ ) and Pearson  $\chi^2$ . From Table 4.9, only the variable attractive environment as the preferred criteria shows significant difference with the variable age group. No other significant



differences exist between respondents' preferred criteria of the public library and demographic factors.

**Table 4. 9 - Significant Value and Pearson  $\chi^2$  for Cross tabulation and Chi Square Analysis between Respondents' Preferred Criteria for Using the Public Libraries and Demographical Factors**

| Preferred Criteria                     | Demographical Factors                       |                         |                         |
|--|---|-------------------------|-------------------------|
|  | Age Group                                   | Gender                  | Race                    |
| Large book collection                  | $\chi^2=2.301, p=0.129$                     | $\chi^2=0.827, p=0.363$ | $\chi^2=1.167, p=0.558$ |
| Attractive environment / Nice ambience | <b><math>\chi^2=4.013, p=0.045</math> *</b> | $\chi^2=1.467, p=0.226$ | $\chi^2=0.869, p=0.648$ |
| Strategic location                     | $\chi^2=2.129, p=0.145$                     | $\chi^2=0.658, p=0.417$ | $\chi^2=2.062, p=0.363$ |
| Library activities                     | $\chi^2=0.494, p=0.482$                     | $\chi^2=0.811, p=0.368$ | $\chi^2=2.363, p=0.307$ |

\* required p value for significance ( $p<0.05$ )

Table 4.10 exhibits the relationship between the attractive environment as the preferred criteria of the public libraries and age of the respondents. The results indicate a significant relation between attractive environment as the preferred criteria of the public libraries and age of the respondents with the Pearson  $\chi^2$  equals 4.013 and the p value is 0.045. Less than half of the total number of respondents (5, 35.7%) age between 7 to 9 years old agrees that the attractive environment provided by the libraries is their preferred criteria compared to only 3 (10.3%) of the total number of respondents age between 10 to

12 years old agreeing on the same thing. The results indicate that younger respondents are more likely to visit the libraries with nice environment than the older respondent.

**Table 4. 10 – Attractive Environment as Preferred Criteria and Age Groups**

| Age Group          | I like this library because it has nice environment |            | Total     |
|--------------------|---|------------|-----------|
|                    | Yes   | No         |           |
| 7 to 9 years old   | 5 (35.7%)   | 9 (64.3%)  | 14 (100%) |
| 10 to 12 years old | 3 (10.3%)   | 26 (89.7%) | 29 (100%) |
| Total              | 8 (18.6%)   | 35 (81.4%) | 43 (100%) |

Pearson  $\chi^2 = 4.013$ ,  $p = 0.045$

### 4.3 Book Selection Strategies

Strategies exhibit by the respondents while selecting books in the public libraries are investigate further in this section. The variables which are being evaluated as book selection strategies shown by the respondents are method of searching for books, characteristics of chosen books, type of books and language read by the respondents.

#### 4.3.1 Method of Locating the Books in the Public Library by Respondents

Table 4.11 indicates that more than half of the total respondents (30, 69.8%) locate their books using shelves browsing technique. This technique involves the respondent constantly moving and browsing from one shelf to another in order to find the books which they find would suit their requirement. They would determine which book they wanted as they go along. A total of 9 respondents (20.9%) choose books with the

help of their companions; that is parents, siblings or friends. Only 2 (4.7%) of the total respondents adopt the practice of looking for books by its call number. When interviewed further, these respondents are able to explain what the call number represents. From the call number obtained from previous books being read or borrowed, they would usually go straight to the intended shelves. The remaining 2 (4.7%) respondents, labeled ‘Others’ locate their books by convenience which is to select any books left on the table by previous user or from the ‘New Book’ display.

**Table 4. 11 - Method of Locating Books in the Public Libraries by Respondents (n=43)**

| <b>Method of locating books</b> | <b>Count</b> | <b>%</b> |
|---------------------------------|--------------|----------|
| Shelves browsing                | 30           | 69.8     |
| Refer to companions             | 9            | 20.9     |
| Use call numbers                | 2            | 4.7      |
| Others                          | 2            | 4.7      |

Cross tabulation analysis is being used to evaluate whether a statistical relationship exists between method of locating books in the public libraries by respondents and age ( $\chi^2=27.230$ ,  $p=0.345$ ), gender ( $\chi^2=6.371$ ,  $p=0.272$ ) and race ( $\chi^2=10.701$ ,  $p=0.381$ ) of the respondents. No significant relations are indicated. However, cross tabulating between reasons for visiting the libraries and methods used to locate books shows significant difference ( $\chi^2=7.837$ ,  $p=0.049$ ) as indicated in Table 4.12.

**Table 4. 12 - Reasons for Visiting and Respondents' Method for Locating Books.**

| Reasons             | Method of locating |                    |                 |             | Total        |
|---------------------|--------------------|--------------------|-----------------|-------------|--------------|
|                     | Shelves browsing   | Refer to companion | Use call number | Others      |              |
| Do revision / study | 1<br>(25%)         | 3<br>(75%)         | 0<br>(0%)       | 0<br>(0%)   | 4<br>(100%)  |
| Read / borrow books | 29<br>(74.4%)      | 6<br>(8.2%)        | 2<br>(5.1%)     | 2<br>(5.1%) | 39<br>(100%) |
| Total               | 30<br>(69.8%)      | 9<br>(20.9%)       | 2<br>(4.7%)     | 2<br>(4.7%) | 43<br>(100%) |

Pearson  $\chi^2 = 7.837$ ,  $p = 0.049$

For recreational reading purposes, respondents are more likely to locate books through browsing from one shelf to another as compared to books being referred by their companions (parents, siblings or friends), referring to book calling number or 'others'. For revision purposes, respondents would more likely refer to companion rather than browsing from one shelf to another in order to locate the books which suit their needs.

#### 4.3.2 Types of Books Prefer by the Respondent

Table 4.13 shows two types of book usually read by the respondents. A large number of respondents 34 (79.1%) out of 43 read books such as storybooks, novels and series. The remaining 9 respondents (20.9%) usually read non-fiction books, which consisted of books on hobbies and general knowledge.

**Table 4. 13 - Type of Book Usually Read by Respondent (n=43)**

| Type of book | Count | %    |
|--------------|-------|------|
| Fiction      | 34    | 79.1 |
| Non-fiction  | 9     | 20.9 |

Cross tabulation analysis between type of books and gender, age and race indicates significant difference between the type of books usually read by the respondent and race. The significant relationship is indicated by Table 4.14 (Pearson  $\chi^2$  of 7.893 and  $p=0.019$ ). However, no distinct relationship is indicated between type of books and age ( $\chi^2=0.597$ ,  $p=0.440$ ) group; and gender of the respondents ( $\chi^2=4.304$ ,  $p=0.507$ ).

**Table 4. 14 – Relationship Between Type of Books Preferred by the Respondents and Race**

| Race    | Type of Books |             | Total     |
|---------|---------------|-------------|-----------|
|         | Fiction       | Non-fiction |           |
| Chinese | 10 (58.8%)    | 7 (41.2%)   | 17 (100%) |
| Malay   | 13 (100%)     | 0 (0%)      | 13 (100%) |
| Indian  | 11 (84.6%)    | 2 (15.4%)   | 13 (100%) |
| Total   | 34 (79.1%)    | 9 (20.9%)   | 43 (100%) |

Pearson  $\chi^2 = 7.893$ ,  $p = 0.019$

More than half of Chinese respondents, (10, 58.8%) usually read fiction books compared to non-fiction books (7, 41.2%). All of the Malay respondents read fiction books. Among the Indian respondents, a large number of them usually read fiction (11,

84.6%) compared to only 2 (15.4%) of them who usually read non-fiction books. It is concluded, the percentages of respondents who read non-fiction books are greater among the Chinese than the Indians and Malays, while fiction books seems to be read equally among the races but are most popular among the Malays.

### 4.3.3 Characteristics of Selected Books

**Table 4. 15 – Characteristics of Selected Books**

| <b>Characteristics</b>        | <b>Count</b> | <b>%</b> |
|-------------------------------|--------------|----------|
| Attractive Cover              | 24           | 55.8     |
| Interesting Storyline         | 22           | 51.2     |
| Attractive Illustrations      | 6            | 14.0     |
| Favourite Series              | 6            | 14.0     |
| Favourite Subjects            | 6            | 14.0     |
| Contains Relevant Information | 3            | 7.0      |

\* Respondents can indicate more than one characteristic

There are six characteristics which are being considered by the respondents when selecting their books in the public libraries, as shown in Table 4.15 More than half of the respondents (24, 55.8%) out of 43 respondents show preference for books with attractive cover. Slightly lower number of respondents, with 22 of them (51.2%) makes their selection from the interesting storyline of the book as discovered by flipping through the pages or reading from the blurbs at the back of the book. Respondents also select books based on their familiarity with the book, with 6 of them (14%) selecting book on their

favourite subjects such as mystery novels; and equal number of respondents choosing books from their favourite series such as Enid Blyton, The Bookworm Club and Eyewitness series. Another 6 respondents (14%) prefer books with attractive illustrations or pictures while 3 (7.0%) select the book which they perceive to contain the information that they needed for revision purposes.

Out of six characteristics listed in the Table 4.15 above, only two variables show significant difference with age group when tested using cross tabulation analysis. Firstly, there is significant relationship between ‘Interesting Storyline’ as respondents’ preferred characteristics in choosing books and age group ( $\chi^2=4.240$ ,  $p=0.039$ ). This is indicated in Table 4.16. However, no significant difference exists between ‘Interesting Storyline’ as respondents’ preferred characteristics in choosing books and gender ( $\chi^2=2.794$ ,  $p=0.095$ ) and race of the respondents ( $\chi^2=0.190$ ,  $p=0.910$ ).

**Table 4. 16 – Relationship between Choosing Books Based on Interesting Storyline and Age Group**

| Age Group          | I choose the book based on its interesting storyline |            | Total     |
|--------------------|--|------------|-----------|
|                    | Yes  | No         |           |
| 7 to 9 years old   | 4 (28.6%)  | 10 (71.4%) | 14 (100%) |
| 10 to 12 years old | 18 (62.1%)   | 11 (37.9%) | 29 (100%) |
| Total              | 22 (51.2%)   | 21 (48.8%) | 43 (100%) |

Pearson  $\chi^2 = 4.240$ ,  $p = 0.039$

Secondly, a distinct relationship can also be seen between ‘Attractive Illustrations’ as respondents’ preferred characteristics in choosing books and age group ( $\chi^2=11.095$ ,  $p=0.001$ ). This is indicated in Table 4.17 However, there is no distinct relationship exists between ‘Attractive Illustrations’ as respondents’ preferred characteristics in choosing books and gender ( $\chi^2=0.566$ ,  $p=0.452$ ) and race of the respondents ( $\chi^2=3.203$ ,  $p=0.202$ ). Subsequently, no distinct relationships are discovered between the rest of the characteristics of the books and demographical background of the respondents.

**Table 4. 17 – Relationship between ‘Attractive Illustrations’ as the Preferred Characteristic and Age Group**

| Age Group          | I chose the book because it has attractive illustrations |            | Total     |
|--------------------|--|------------|-----------|
|                    | Yes  | No         |           |
| 7 to 9 years old   | 6 (42.9%)  | 8 (57.1%)  | 14 (100%) |
| 10 to 12 years old | 0 (0%)   | 29 (100%)  | 29 (100%) |
| Total              | 6 (14.0%)  | 37 (86.0%) | 43 (100%) |

Pearson  $\chi^2 = 11.095$ ,  $p = 0.000$

Fewer respondents between the ages of 7 to 9 years old choose book based on its interesting storyline, with 4 of them (28.6%) compared to those who do not do so (10, 71.4%). As opposed to that, the majority of the older respondents (age between 10 to 12 years old) tended to make their selection based on interesting storyline (18, 62.1%), compared to 11 (37.9%) of them who do not do so. This shows the tendency to select books based on interesting storyline are greater among older respondents.



Respondents who have chosen books selection based on attractive illustration tended to be between the ages of 7 to 9 years old, with 6 (42.9%) of the 14 younger respondents. More than half of the younger respondents (with 8, 57.1%) do not make their selection based on the illustrations in the book.

For the older respondents, none of them place an importance in selecting books based on pictures. This show, only younger respondents have a tendency to make their book selection based on the attractive illustrations in the books as opposed to older respondents.

#### **4.3.4 Characteristics of Selected Books with Other Variables**

##### **(a) Characteristics of Selected Books and Reasons for Visits**

The association between respondents' reason for visiting the libraries and the preferred characteristics of books selected by respondents is given in Table 4.18. It is indicated that there are two significant differences between the respondents' reason for visiting the libraries and 'Attractive Front Cover' and 'Contain Relevant Information' as the preferred characteristics of books selected by respondents with Pearson  $\chi^2 = 5.571$ ,  $p=0.018$  and Pearson  $\chi^2 = 12.578$ ,  $p=0.000$ ; respectively. However, there is very little, if any, relationship between the reasons of library visits and the remaining characteristics of selected books as shown in the Table 4.18.

**Table 4. 18 - Reasons of Visiting and Important Characteristics of Selected Books.**

| Reasons   | % of respondents with their important characteristics of selected books |                        |                     |                  |                    |                               |
|---|---|------------------------|---------------------|------------------|--------------------|-------------------------------|
|   | Attractive front cover  | Interesting story line | Books with pictures | Favourite Series | Favourite Subjects | Contains Relevant Information |
| % of respondents who visit the library to do revision / study | 0   | 50                     | 0                   | 25               | 0                  | 50                            |
| % of respondents who visit the library to read / borrow books | 61.5  | 51.3                   | 15.4                | 12.8             | 15.4               | 2.6                           |
| Pearson $\chi^2$  | <b>5.571</b>  | 0.002                  | 0.715               | 0.448            | 0.715              | <b>12.578</b>                 |
| P   | <b>0.018*</b>   | 0.961                  | 0.398               | 0.503            | 0.398              | <b>0.000*</b>                 |

\* required p value for significance (p<0.05)

These figures seem to suggest that for recreational reading, respondents are more likely to place an importance on the attractive front cover as the characteristic they would be looking for and do not place importance on this criteria when using the libraries for revision purposes. On the contrary, respondents would put more emphasis on books that contain relevant information which would fulfill their needs when it comes for revision purposes as opposed to the respondents who would consider the same characteristics when choosing books for recreational reading.

**(b) Characteristics when Selecting Books and Usual Companions when Visiting the Public Libraries**

When cross tabulating ratings between ‘Characteristics when Selecting Books’ and ‘Usual Companion when Visiting the Public Libraries’, only those who visited the libraries with their siblings indicates difference when making book selections (Table 4.19)

**Table 4. 19 – Siblings Involvement and Respondents’ Preferred Book Characteristics**

| <b>Factor</b>   | <b>% of respondents with their preferred characteristics of selected books</b> |                               |                            |                         |                           |                                      |
|---|--|-------------------------------|----------------------------|-------------------------|---------------------------|--------------------------------------|
|   | <b>Attractive front cover</b>  | <b>Interesting story line</b> | <b>Books with pictures</b> | <b>Favourite Series</b> | <b>Favourite Subjects</b> | <b>Contains Relevant Information</b> |
| % of Respondents who visit the library with siblings    | 52.4   | 52.4                          | 4.8                        | 9.5                     | 28.6                      | 19.0                                 |
| % of respondents who visit the library without siblings | 59   | 50                            | 22.7                       | 4.5                     | 0                         | 9.1                                  |
| Pearson $\chi^2$  | 0.196  | 0.024                         | 2.888                      | 0.410                   | <b>7.305</b>              | 0.887                                |
| p   | 0.658  | 0.876                         | 0.089                      | 0.522                   | <b>0.007*</b>             | 0.346                                |

\* required p value for significance (p<0.05)

It appears that only ‘Favourite Subjects’ as the preferred book characteristic shows a significant difference between the respondents who visit the library with their siblings and those without, with Pearson  $\chi^2 = 7.305$  and p=0.007.

**(c) Characteristics of Selected Books and Types of Books Chosen**

Another factor which seems to associate between the respondents' preferred characteristics of selected books and the type of books being read, either fiction or non-fiction books; is indicated in Table 4.20. There is significant difference in the ratings 'Favourite Subjects' and respondents' preferred characteristics when making selection between fiction and non-fiction books (Pearson  $\chi^2=8.814$ ,  $p=0.003$ ). Respondents who read non-fiction books tend to select their books based on favourite subjects more than respondents who read fiction. Another significant difference is book which contains relevant information is the preferred among compared to those who read fiction books (Pearson  $\chi^2=4.074$ ,  $p=0.043$ ).

**Table 4. 20- Characteristics of Selected Books and Types of Books Preferred**

| <b>Factor</b>                                 | <b>% of respondents with their preferred characteristics of selected books</b> |                               |                            |                                  |                           |                                      |
|---|--|-------------------------------|----------------------------|----------------------------------|---------------------------|--------------------------------------|
|   | <b>Attractive front cover</b>  | <b>Interesting story line</b> | <b>Books with pictures</b> | <b>Favourite Author / Series</b> | <b>Favourite Subjects</b> | <b>Contains Relevant Information</b> |
| % of Respondents who read fictional books     | 58.8   | 55.9                          | 11.8                       | 17.6                             | 5.9                       | 2.9                                  |
| % of Respondents who read non-fictional books | 44.4   | 33.3                          | 22.2                       | 0                                | 44.4                      | 22.2                                 |
| Pearson $\chi^2$                              | 0.597  | 1.448                         | 0.648                      | 1.846                            | <b>8.814</b>              | <b>4.074</b>                         |
| p   | 0.440  | 0.229                         | 0.421                      | 0.174                            | <b>0.003*</b>             | <b>0.043*</b>                        |

\* required p value for significance ( $p<0.05$ )

#### 4.3.5 Respondents' Language of Choice

Both Kuala Lumpur Children's Library and Bayan Budiman Children's Library, Petaling Jaya offer books in Malay and English. Table 4.21 indicates the frequency of books in the two languages being borrowed by the respondents.

Majority of the respondents frequently choose to borrow English books (35, 81.4%) compare to Malay books (14, 32.6%). On the other hand, respondents borrowed Malay books only occasionally (10, 23.3%). However, nearly half of the total number of respondents (19, 44.2%) never borrowed books in Malay language and only 3 respondents (7.0%) have never borrowed books in English.

**Table 4. 21 - Language of Choice by Respondent (n=43)**

| Frequency    | Malay |        | English |        |
|--------------|-------|--------|---------|--------|
|              | Count | %      | Count   | %      |
| Always       | 14    | 32.6   | 35      | 81.4   |
| Occasionally | 10    | 23.3   | 5       | 11.6   |
| Never        | 19    | 44.2   | 3       | 7.0    |
| Total        | 43    | 100.0% | 43      | 100.0% |

#### (a) Language of Choice and Race

The variables 'Language of Choice' is cross tabulated for significant relation with age, gender and race of the respondents. Table 4.22 indicates a significant relation between Malay as the language of choice to read and the race of the respondents with Pearson  $\chi^2$  11.659 and  $p = 0.020$ . However, there is no significant relation between the

Malay as the language of choice and gender ( $\chi^2=1.028$ ,  $p=0.598$ ) or age ( $\chi^2=1.608$ ,  $p=0.447$ ).

In order to evaluate the differences among the three races, a follow up pair wise comparison is conducted. The proportions differed significantly between the Malay and Chinese respondents (Pearson  $\chi^2 = 8.675$ ,  $p=0.013$ ); but not between Malay and Indian (Pearson  $\chi^2 = 5.933$ ,  $p=0.051$ ) and between Indian and Chinese (Pearson  $\chi^2 =3.832$ ,  $p=0.147$ ).

**Table 4. 22 –Books Being Borrowed in Malay Language and Race**

| Race    | Borrowed Books in Malay Language |              |            | Total     |
|---------|----------------------------------|--------------|------------|-----------|
|         | Always                           | Occasionally | Never      |           |
| Chinese | 2 (11.8%)                        | 6 (35.3%)    | 9 (52.9%)  | 17 (100%) |
| Malay   | 8 (61.5%)                        | 3 (23.1%)    | 2 (15.4%)  | 13 (100%) |
| Indian  | 4 (30.8%)                        | 1 (7.7%)     | 8 (61.5%)  | 13 (100%) |
| Total   | 14 (32.6%)                       | 10 (23.3%)   | 19 (44.2%) | 43 (100%) |

Pearson  $\chi^2 = 11.659$ ,  $p = 0.020$

Among the Chinese respondents, only 2 of them (11.8%) borrowed Malay books every time they visit the library, 6 (35.3%) of them borrowed Malay book occasionally while more than half of them (9, 52.9%) have never borrowed books in Malay. Among the Malays, the majority of them, that is 8 (61.5%), borrowed Malay books each time they visit the library, 3 (23.1%) borrowed Malay books occasionally while 2 (15.4%)

have never borrowed Malay books from the public libraries. About 4 (30.8%) of the total Indian respondents borrowed Malay books during every visits to the library, 1 (7.7% ) borrowed occasionally while a large number of them have never borrowed Malay books from the public library, that is 8 (61.5%).

Additionally, there is a significant relation between English books being borrowed and race of the respondents with the Pearson  $\chi^2 = 16.495$  and  $p = 0.002$ . However, there is no significant relation between the English as the language of choice and gender ( $\chi^2=4.305$ ,  $p=0.116$ ) or age ( $\chi^2=1.622$ ,  $p=0.444$ ).

**Table 4. 23 –Books Being Borrowed in English Language and Race**

| Race    | Borrowed Books in English Language |              |           | Total     |
|---------|------------------------------------|--------------|-----------|-----------|
|         | Always                             | Occasionally | Never     |           |
| Chinese | 17 (100%)                          | 0 (0%)       | 0 (0%)    | 17 (100%) |
| Malay   | 6 (46.2%)                          | 5 (38.5%)    | 2 (15.4%) | 13 (100%) |
| Indian  | 12 (92.3%)                         | 0 (0%)       | 1 (7.7%)  | 13 (100%) |
| Total   | 35 (81.4%)                         | 5 (11.6%)    | 3 (7.0%)  | 43 (100%) |

Pearson  $\chi^2 = 16.948$ ,  $p = 0.002$

In order to evaluate the differences among the three races, a follow up pair wise comparison is conducted. The proportions differed significantly between the Chinese and Malay respondents (Pearson  $\chi^2 = 11.940$ ,  $p=0.003$ ); but not between Malay and Indian respondents (Pearson  $\chi^2 = 7.333$ ,  $p=0.26$ ) and between Indian and Chinese respondents

(Pearson  $\chi^2 = 1.353$ ,  $p=0.245$ ). As shown in Table 4.23 the Chinese respondents are more likely to borrow English books on a frequent basis than Indian or Malay respondents.

All of the Chinese respondents always borrowed at least one English book each time they visited the public libraries. Among the Malay respondents, 6 (46.2%) always borrowed at least one English book each time they visited the public libraries, 5 (38.5%) borrowed English book occasionally while 2 (15.4%) have never borrowed English books. Nearly all Indian respondents (12, 92.3%) also stated they always borrowed at least one English book each time they visited the public libraries. The remaining 1 (7.7%) have never borrowed any English book from the public libraries.

**(b) Language of Books and Parental Influence**

**Table 4. 24 –Respondents who Visit the Library with Parents, and Respondents’**

**Language of Choice (English).**

| Factors   | Respondents who read English book |              |              | Total        |
|---|-----------------------------------|--------------|--------------|--------------|
|   | Always                            | Occasionally | Never        |              |
| Respondents who visit the library with parents    | 29<br>(93.5%)                     | 2<br>(6.5%)  | 0<br>(0%)    | 31<br>(100%) |
| Respondents who visit the library without parents | 6<br>(50.0%)                      | 3<br>(25.0%) | 3<br>(25.0%) | 12<br>(100%) |
| Total   | 35<br>(81.4%)                     | 5<br>(11.6%) | 3<br>(7.0%)  | 43<br>(100%) |

Pearson  $\chi^2 = 12.325$ ,  $p = 0.002$



Table 4.24 indicates a significant relation between respondents who read English book when visiting the library with their parents with Pearson  $\chi^2 = 12.325$ ,  $p = 0.002$ . A large number of respondents being accompanied by their parents (29, 93.5%, from 31 respondents) always borrow at least one book every time they visit the library. Two respondents (6.5%) borrowed English book occasionally, while none of the respondents ever borrowed any English book during their visit with the parents. Among the twelve respondents who visit the library without their parents, half of them (6) borrowed English books each time they visit the library, 3 (25%) borrowed English book occasionally and the same amount, 3 (25%) never borrowed English book during their visit. This conclude that the respondent who is being accompanied by the parents are more likely to borrow at least one English book each time they visit the library than the respondent who is not being accompanied by the parents.

**Table 4. 25 –Respondents who Visit the Library with Parents, and Respondents’ Language of Choice (Malay).**

| <b>Factors</b>                                    | <b>Respondents who read Malay book</b> |                     |               | <b>Total</b> |
|---|--|---------------------|---------------|--------------|
|   | <b>Always</b>                          | <b>Occasionally</b> | <b>Never</b>  |              |
| Respondents who visit the library with parents    | 6<br>(19.4%)                           | 9<br>(29.0%)        | 16<br>(51.6%) | 31<br>(100%) |
| Respondents who visit the library without parents | 8<br>(66.7%)                           | 1<br>(8.3%)         | 3<br>(25.0%)  | 12<br>(100%) |
| <b>Total</b>                                      | 14<br>(32.6%)                          | 10<br>(23.3%)       | 19<br>(44.2%) | 43<br>(100%) |

Pearson  $\chi^2 = 8.928$ ,  $p = 0.012$

A significant relation can also be seen between respondents who read Malay book when visiting the library with their parents compared to respondents who visit the library without their parents (Pearson  $\chi^2 = 8.928$ ,  $p = 0.012$ ). This is indicated in Table 4.25. The number of respondents who visit the libraries with their parents tend to borrow less Malay books compared to when they visit the libraries unaccompanied by their parents.

#### 4.4 Problems Faced when Using Reference Sources and Services

This section identifies the problem frequently encountered by the respondents when making their book selection in the public library. It would also provide information on respondents' possible reference sources which helped the respondents in making decision regarding book selection.

**Table 4. 26 – Problems Faced by Respondents when Choosing Books in the Public Library (n=43)**

| Type of problems               | Count | %    |
|--------------------------------|-------|------|
| No problem                     | 34    | 79.1 |
| Do not know the starting point | 7     | 16.3 |
| Others                         | 2     | 4.6  |

Table 4.26 shows the problems faced by respondents when making their book selections in the public library. A large number of respondents stated that they never encounter any difficulties while doing so, that is 34 (79.1%) out of 43 respondents. The remaining 9 do faced difficulties, with 7 of them (16.3%) reported they often do not

know where to start when searching for books to read and the remaining two (4.6%) faced other kind of problems. These ‘others’ are difficulties in choosing which book to read as the collection is huge and books being unorganized.

Cross tabulation analysis is used to test any statistical relationship that may exists between type of problems and gender ( $\chi^2=0.032$ ,  $p=0.984$ ), age ( $\chi^2=1.304$ ,  $p=0.521$ ) and race ( $\chi^2=1.545$ ,  $p=0.819$ ) of the respondents. The results conclude there are no distinct relationship as well as significant difference between these variables.

#### 4.4.1 Problems Faced in Locating Books and Respondents Preferred

##### Characteristics in Selected Books.

**Table 4. 27 – Problems Faced in Locating Books and Respondents Preferred Characteristics in Selected Books.**

| Factor  | % of respondents with their preferred characteristics of selected books |                        |                     |                           |                    |                               |
|---|---|------------------------|---------------------|---------------------------|--------------------|-------------------------------|
|   | Attractive front cover  | Interesting story line | Books with pictures | Favourite Author / Series | Favourite Subjects | Contains Relevant Information |
| % of respondents who faced difficulty in locating books | 33.3  | 44.4                   | 0                   | 0                         | 22.2               | 22.2                          |
| % of respondents who do not faced any difficulties      | 61.8  | 52.9                   | 17.6                | 17.6                      | 11.8               | 2.9                           |
| Pearson $\chi^2$  | 2.332   | 0.206                  | 1.846               | 1.846                     | 0.648              | <b>4.076</b>                  |
| P   | 0.127   | 0.650                  | 0.174               | 0.174                     | 0.421              | <b>0.043*</b>                 |

\* required p value for significance ( $p<0.05$ )

Another interesting finding which associates with respondents preferred characteristics of selected books are whether they encounter any problems when making their selection based on the characteristics. Table 4.27 indicates a significant difference which is seen between respondents who stated they have difficulty in locating books which they perceived to contain relevant information and those who do not faced any difficulties (Pearson  $\chi^2=4.076$ ,  $p=0.043$ ). However, there are no other significant differences between respondents who faced difficulties in locating books based on other preferred characteristics such as attractive front cover, interesting storyline, books with pictures, favourite author/series and favourite subjects.

#### **4.5 Primary Reference Point of the Respondents**

In order to gain information on respondents' primary reference points, respondents were asked to give their possible source if they face any difficulties while using the library. Examples were given such as difficulties in locating books, asking for directions and other problems related to the library services or facilities. As indicated in Table 4.28, more than half (26, 60.5%) of the respondents would refer to their companions, which may be their parents, siblings or friends if problems arise when searching for or choosing books in the public libraries. About 12 (27.9%) continue searching on their own and make decision for themselves whenever they faced the same problems. Only 5 out of the total number of respondents will use the reference source or services provided by the library itself, with 4 of them (9.3%) would consult the librarian for help and the remaining 1 (2.3%) would rely solely on the signage.

Cross tabulation analysis is used to test any significant relationship between primary reference point and gender ( $\chi^2=4.635$ ,  $p=0.201$ ), age ( $\chi^2=0.640$ ,  $p=0.887$ ) and race ( $\chi^2=6.563$ ,  $p=0.363$ ) of the respondents. The results conclude, there is no clear relationship and significant differences between these variables.

**Table 4. 28 – Primary Reference Point of the Respondents (n=43)**

| <b>Reference Point</b>          | <b>Count</b> | <b>%</b> |
|---------------------------------|--------------|----------|
| Companion(s)                    | 26           | 60.5     |
| Continue searching on their own | 12           | 27.9     |
| Librarian                       | 4            | 9.3      |
| Signage                         | 1            | 2.3      |

#### **4.5.1 Respondents' Reference Points and their Preferred Characteristics in Selected Books.**

Table 4.29 indicates the association between respondents' reference points and their preferred characteristics of selected books. This analysis is being carried out in order to investigate the problems faced by the respondents when they select books based on their preferred criteria and their reference point of choice which the respondent perceived could provide useful help.

There is a significant difference between the number of respondents who would refer to the librarian for help when locating books that contains relevant information than those who refer to their companion, signage/directory or those who continue searching on their own without anyone's help (Pearson  $\chi^2=12.776$ ,  $p=0.005$ ). The figures suggest that

respondents who select books based on the information would refer to the librarian, more often than other reference points when they have any difficulties in locating the book with the same characteristics.

**Table 4. 29 - Respondents' Reference Points and their Preferred Characteristics in Selected Books**

| <b>Factor</b>   | <b>% of respondents with their preferred characteristics of selected books</b> |                               |                            |                                  |                           |                                      |
|---|--|-------------------------------|----------------------------|----------------------------------|---------------------------|--------------------------------------|
|   | <b>Attractive front cover</b>  | <b>Interesting story line</b> | <b>Books with pictures</b> | <b>Favourite Author / Series</b> | <b>Favourite Subjects</b> | <b>Contains Relevant Information</b> |
| % of respondents who refer to the librarian for help in locating book     | 25.0   | 25.0                          | 0                          | 25.0                             | 25.0                      | 50.0                                 |
| % of respondents who refer to the companion for help in locating book     | 57.7   | 53.8                          | 19.2                       | 7.7                              | 15.4                      | 3.8                                  |
| % of respondents who do not refer to anyone for help in locating book     | 58.3   | 58.3                          | 8.3                        | 25.0                             | 8.3                       | 0                                    |
| % of respondents who refer to signage/directory for help in locating book | 100  | 0                             | 0                          | 0                                | 0                         | 0                                    |
| Pearson $\chi^2$  | 2.400  | 2.465                         | 1.730                      | 2.637                            | 0.929                     | <b>12.776</b>                        |
| p   | 0.494  | 0.482                         | 0.630                      | 0.451                            | 0.818                     | <b>0.005*</b>                        |

\* required p value for significance (p<0.05)

#### 4.6 Library Knowledge and Participation

In this section, respondents' knowledge and the level of participation of the visited library is further investigated. Table 4.30 shows two questions being asked to the respondents in order to obtain data on their library knowledge and participation.

Firstly, the respondents were asked to name at least one of the activities, services or facilities known to them, which is being offered by the library in order to find out their library knowledge. About 22 (51.2%) out of the total number of respondents managed to provide at least an answer to the question. Among the activities, services or facilities known to the respondents are storytelling sessions, various contests such as colouring contest and storytelling competition; art and craft classes and computer classes. However, there is no clear relationship between library knowledge and gender ( $\chi^2=2.794$ ,  $p=0.095$ ), age ( $\chi^2=1.431$ ,  $p=0.232$ ) and race ( $\chi^2=3.449$ ,  $p=0.178$ ) of the respondents as shown by the results from cross tabulation analysis

**Table 4. 30 – Library Knowledge and Participation of the Respondents**

|   | Yes |      | No |      |
|---|-----|------|----|------|
|   | N   | %    | N  | %    |
| Can you name any activities / services / facilities being offered by the library?   | 22  | 51.2 | 21 | 48.8 |
| Have you ever been involved in any of the activities organized / used any of the additional services/facilities in the library? | 10  | 23.3 | 33 | 76.7 |

Secondly, the respondents were then asked on their participation in the activities or utilization of the additional services or facilities in the public library excluding loaning of books. Only 10 (23.3%) out of 43 respondents have participated in the activities or used any of the additional services or facilities provided by the public library. When tested for significance, there is a relation between respondents library participation and age group with Pearson  $\chi^2$  of 4.469 and  $p = 0.035$ . This is shown in Table 4.31. However, there is no significant relation between respondents' library participation and gender ( $\chi^2=3.091, p=0.079$ ) or race ( $\chi^2=2.080, p=0.353$ ).

**Table 4. 31 – Relationship between Library Participation and Age Group**

| Age Group          | Have you ever participate/use any of the activities/services/facilities in the library |            | Total     |
|--------------------|--|------------|-----------|
|                    | Yes  | No         |           |
| 7 to 9 years old   | 6 (42.9%)  | 8 (57.1%)  | 14 (100%) |
| 10 to 12 years old | 4 (13.8%)  | 25 (86.2%) | 29 (100%) |
| Total              | 10 (23.3%)   | 33 (76.6%) | 43 (100%) |

Pearson  $\chi^2 = 4.469, p = 0.035$

Less than half of the respondents at the ages of 7 to 9 years old have been involved at least once in the activities organized by the libraries, that is 6 (42.9%) of the total number of younger respondents. About 8 (57.1%) have never participated in any of the activities. Among the older respondents (age 10 to 12 years old), only 4 (13.8%) have participated in at least one of the activities organized by the public libraries, compared to 25 (86.2%) who never do. The results show that younger respondents (age 7 to 9 years



old) are more involved in library activities compared to older respondents (age 10 to 12 years old).

#### **4.7 Observed Sequence of Behaviour Exhibited by Children**

An unobtrusive observation is being carried out in order to study the behaviour exhibited by the respondents during the book selection process. Because of the time constraints, it is not possible for each child to be observed doing an individual search starting from the moment they step into the library until the end of their visit. Therefore, only the first 15 minutes of the book selection process are being observed for each child. The occurrences and types of search strategies the children employed during their search are noted using the model developed by Belkin et al (1993).

The sequences of tables in the next pages summarize the information search strategies observed when the respondent approached the shelves looking for books. It is grouped in four different categories in order to facilitate the discussion in the next chapter. However, it does not reflect the exact sequence of behaviours being exhibited in real situation which could be a combination of different strategies and categories. The information search strategies recorded in the table represent the behaviours being exhibit at least once by the respondents during their search. Because of the large number of participants needed to be observed for the study, this table does not record strategies performed by individual children, nor does it indicate the number of times any particular strategy was observed being used during the shelf searches.

The search for books started with the respondents approaching the shelf to browse the collection. There are two types of shelf approach prominently exhibit by the respondents, browsing from one shelf to another or a direct approach to intended shelf.

When respondents are browsing from one shelf to another, they might be looking for something interesting or looking for books on certain subjects, genre or topics. Some of the respondents started their book selection by browsing each book shelf, looking at the collections and how it is being organized to familiarize themselves with the library. This is interpreted as Scanning available books on the shelves/Learning to internalize how the books are being organised/Recognising the type of books available/Looking at the Information on the book. There are also respondents who referred to each signage before approaching the shelves to become familiar with the organization of the collection. This is interpreted as a strategy of Scanning available signage/Learning the meaning of each signage/Recognising books available based on the signage/ identifying Meta-Information from the signage. After getting familiar with the organization of the collection within the library, the respondents would begin their search for books, either using strategies in Category 1 or Category 2.

#### **4.7.1 Category 1 Searching Behaviour**

There are 16 (37.2%) respondents who have showed sequences of behaviors similar to Category 1 Searching Behaviour. The respondents showed preference in browsing from one shelf to another, or even look at the tables and displays and select books from its cover which appear interesting to them. They also tend to move around a

lot while doing their browsing. The behaviour sequence of this strategy is Scanning available books in the library/Selecting one book/Recognising the type of books available/identify the Information on the book and this sequence is exhibited by most of the respondents most of the time. They would simply pick any books of their interest and flip the pages in order to know about the content. This is sequenced as Scanning the pages of the book/Learning the topic or content of the book/Recognising the topic of interest/identify the information on the book. If they have identified the topic relevant to their interest, they would select the book and examine the content of the books more carefully; checking the pictures and pages. They would subsequently Scan the pages of the book/Select a topic or picture of their interest/Recognise the topic or picture of interest/identify the Information on the book. They would also choose different books with characteristics similar to previous book by Searching for a specific book/Selecting the book/Specifying characteristics/identify the relevant Information on the book.

Table 4.32 summarizes the Category 1 search behaviour. Children exhibits this behaviour would commonly used Scanning as Method, and Recognition as the Mode, with the Goal to Learn and Select the book of their choice. The most favoured Resource is when the relevant Information is recognized directly when looking at books/pictures/articles.

**Table 4. 32 – Searching Behaviour in Category 1**

| Behaviour   | STRATEGY |          |          |          |           |          |          |          |
|---|----------|----------|----------|----------|-----------|----------|----------|----------|
|   | METHOD   |          | GOAL     |          | MODE      |          | RESOURCE |          |
|   | Scan     | Search   | Learn    | Select   | Recognize | Specify  | Info     | Meta     |
| Category 1  |          |          |          |          |           |          |          |          |
| Look at the signage   | X        |          | X        |          | X         |          |          | X        |
| Browse from 1 place to another (shelf/table/display)for any interesting book                                    | X        |          | X        |          | X         |          | X        |          |
| Select book (by cover) which appear interesting   | X        |          |          | X        | X         |          | X        |          |
| Flip the pages to know about the content  | X        |          | X        |          | X         |          | X        |          |
| Close examination of pages and pictures   | X        |          |          | X        | X         |          | X        |          |
| Directly approach a shelf to select book based on specific characteristics from the cover (author/title/series) |          | X        |          | X        |           | X        | X        |          |
| <b>TOTAL</b>  | <b>5</b> | <b>1</b> | <b>3</b> | <b>3</b> | <b>5</b>  | <b>1</b> | <b>5</b> | <b>1</b> |

#### 4.7.2 Category 2 Searching Behaviour

About 8 (18.6%) of the respondents showed similar behaviour of browsing from one shelf to another, but when they select their books, they tend to focus on certain topic, subject or genre such as Forensic Science, Airplane and Mystery novels. They would focus their search at certain shelves. The strategy sequences adapted is Scanning the collection of books/Selecting a book/Specifying certain topic, subject or genre/identify the Information on the book. The respondents would flip the pages to ensure the book contains the specified subjects by Scanning the pages/Selecting the words representing

the topic/subject/genre)/Specifying words on the selected topic/subject/genre/ identify the Information on the book. Additionally, they would also check the front and back of the books, most probably looking at the table of content or index by Searching for a certain word on the topic/subject/genre/ Selecting the word/ Specify the word related to the topic/subject/genre/ look for Meta-Information from the table of content or index. For those who spend more time at certain shelves checking the content of a book for a topic related to their interest, they would Scan the shelf)/Select a book/Recognize the relevant topic/look for Information on the book. Having done this, the respondent might then choose some characteristics from the book such as the title, author or series as the specification for their next search by Searching for specific title/author/series/Selecting a book/Specifying the title/author/series/ identify the Information on the book that they want.

Table 4.33 summarizes the search behaviour presented in Category 2. The most commonly used Method is Scan, with equal use of Recognition and Specification as the Mode. The Goal is more on Selecting book based on Information on the book rather than Meta-Information.

**Table 4. 33 – Category 2 Search Behaviour**

| Behaviour   | STRATEGY |          |          |          |           |          |          |          |
|---|----------|----------|----------|----------|-----------|----------|----------|----------|
|   | METHOD   |          | GOAL     |          | MODE      |          | RESOURCE |          |
|   | Scan     | Search   | Learn    | Select   | Recognize | Specify  | Info     | Meta     |
| Category 2  |          |          |          |          |           |          |          |          |
| Look at the signage   | X        |          | X        |          | X         |          |          | X        |
| Browse from 1 place to another (shelf/table/display)for any interesting book                                    | X        |          | X        |          | X         |          | X        |          |
| Select book based (by cover) on specific subject or topic   | X        |          |          | X        |           | X        | X        |          |
| Flip the pages to search for specified topic or subject   | X        |          |          | X        | X         |          | X        |          |
| Check the table of content or index   |          | X        |          | X        |           | X        |          | X        |
| Directly approach a shelf to select book based on specific characteristics from the cover (author/title/series) |          | X        |          | X        |           | X        | X        |          |
| <b>TOTAL</b>  | <b>4</b> | <b>2</b> | <b>2</b> | <b>4</b> | <b>3</b>  | <b>3</b> | <b>4</b> | <b>2</b> |

### 4.7.3 Category 3 Searching Behaviour

For children using the direct approach, the process of selecting books is quite straight forward. They would approach the intended shelf and choose the book based on the information on the cover. The selected books seem to be of particular author or series. There are 7 (16.3%) respondents who exhibit the Category 3 searching behaviour. This strategy is sequenced by Searching for the book from specific title/author/series)/ Selecting the book/ Specifying the title, author or series and looking for Information in

the book. As books are retrieved, they might look at the contents by flipping the pages or reading the blurb. This strategy sequence is Scanning the content/ Selecting an interesting storyline, chapter or character/ Recognizing something relevant to their interest with the book by the author or series)/looking for Information fro the book to judge whether they are relevant to their specific interests.

Table 4.34 summarizes the search behaviour presented in Category 3. In this category, children used equal amount of Scanning and Searching with their main Goal is to Select a book. They used both Mode of Specification and Recognition.

**Table 4. 34 – Category 3 Search Behaviour**

| Behaviour   | STRATEGY |          |          |          |           |          |          |          |
|---|----------|----------|----------|----------|-----------|----------|----------|----------|
|   | METHOD   |          | GOAL     |          | MODE      |          | RESOURCE |          |
|   | Scan     | Search   | Learn    | Select   | Recognize | Specify  | Info     | Meta     |
| Category 3  |          |          |          |          |           |          |          |          |
| Directly approach a shelf to select book based on specific characteristics from the cover (author/title/series) |          | <b>X</b> |          | <b>X</b> |           | <b>X</b> | <b>X</b> |          |
| Check the content for relevancy by flipped the pages or read blurbs   | <b>X</b> |          |          | <b>X</b> | <b>X</b>  |          | <b>X</b> |          |
| <b>TOTAL</b>  | <b>1</b> | <b>1</b> | <b>0</b> | <b>2</b> | <b>1</b>  | <b>1</b> | <b>2</b> | <b>0</b> |

#### 4.7.4 Category 4 Searching Behaviour

Some of the respondents might approach a shelf directly and spend minimal time in browsing the different books on the shelf. In this instance the book on the shelf they choose might be from the same series or author collections. About 11 respondents (25.5%) exhibited Category 4 searching behaviour. The sequence of this strategy is Searching for a specific title/Selecting a book/Recognizing the book upon sight/ retrieved the Information from the book. As the books are retrieved, they might look at their contents, in order to examine the relevancy of the book to their interest (Scan/Select/Recognize/Info).

**Table 4. 35 – Category 4 Search Behaviour**

| Behaviour  | STRATEGY |          |          |          |           |          |          |          |
|--|----------|----------|----------|----------|-----------|----------|----------|----------|
|  | METHOD   |          | GOAL     |          | MODE      |          | RESOURCE |          |
|  | Scan     | Search   | Learn    | Select   | Recognize | Specify  | Info     | Meta     |
| Category 4   |          |          |          |          |           |          |          |          |
| Browse the shelf to select book on specific characteristics from the cover (author/title/series) |          | X        |          | X        | X         |          | X        |          |
| Check the content for relevancy by flipped the pages or read blurbs                              | X        |          |          | X        | X         |          | X        |          |
| <b>TOTAL</b>   | <b>1</b> | <b>1</b> | <b>0</b> | <b>2</b> | <b>2</b>  | <b>0</b> | <b>2</b> | <b>0</b> |



Table 4.35 summarizes the Category 4 search behaviour. In this category, the children used equal amount of Scanning and Searching to Select book which they choose through Recognition Mode.

#### **4.7.5 Emotion Exhibit by Respondents**

The respondents had expressed some emotions during different stages of the book selection process. During the initial stage, they would exhibit excitement upon seeing huge collections of books to choose from. This could be seen from the way they explore one shelf to another and calling their companion (such as parents, sibling or friends) upon seeing interesting books. There were also some respondents who would look at the signage to help them understand the location or organization of books. However, in the middle of the search, the respondents had shown some uncertainties and confusion. They seem to consult their companions frequently for help in focusing their search. Towards the end, there were also some confusion over making decision on which book to borrow since the children are allowed to borrow a maximum of 2 books (Petaling Jaya Community Library) or 5 books (Kuala Lumpur Children's Library); not being able to find any interesting book or when they were overwhelmed by the huge collection. On some occasion, they would approach the librarian behind the circulation counter or the researcher (myself) for information.

#### **4.8 Summary**

The results from the study indicates that the main reason children visit the public libraries is for recreational purposes. Majority of the children locate their books for recreational reading by browsing from the shelves. Majority of them make their book

selection by the cover and storylines. There are tendency for older children to choose books based on interesting storylines, while the younger children based on attractive illustrations. A heavy used of other people such as parents and friends, as the reference sources are being stated by these children when having problems in the public libraries.

Universiti Malaya

## **CHAPTER 5**

### **DISCUSSION**

#### **5.1 Introduction**

The aim of this study is to determine the main reasons children visit the public libraries, criteria they use to choose books, the information seeking patterns of the children in the libraries, the primary reference sources and services for the children and the problem children faced when using the libraries. A total of 43 children from the age of seven to twelve years old, who visited the Kuala Lumpur Children's Library and Bayan Budiman Children's Library, Petaling Jaya are being observed and interviewed. Most of the children in this age group are school-goers; therefore they are expected to have developed reading skills. The study is conducted in the context of real public libraries situation where the children had no prior knowledge of the study being conducted.

#### **5.2 Answering the Research Questions**

##### **5.2.1 The Frequency and Reasons Children Visit the Public Libraries**

Based on the findings, the frequency of library visit by the children are encouraging with a large number of them visiting the library frequently, which is once in a week or once in two weeks. The frequency of library visits by the children is distributed evenly among the demographic background regardless of their age, gender and race. The frequency of library visits by the respondents reflect the reading interest and ability

among the children between the ages of seven to twelve years old as reported by a study conducted by National Library of Malaysia (1996) entitled “Reading Profile of Malaysians”, which indicated that children who frequent the library or book shops have better reading practice and ability compare to their peers. Children, who read well, will read more often, for a longer period of time and make better readers, which will raise their self-image as readers. They would put more effort into developing their reading interest (DeAngelo et al, 1997).

There are two main reasons for the children to visit the library which is for recreational reading and for revision purposes, with the majority of them opting for the first. These relates to the role of children’s libraries as defined by UNESCO’s Public Library Manifesto (IFLA, 1995), Public Library Research Group United Kingdom (Brown, 1979) and Library Association Guidelines (Library Association, 1991); which is to provide children with access to information they are looking for, as well as to encourage reading for enjoyment so that the children would not lose the creative side of their development.

### **5.2.2 Children’s Usual Companions During Library Visits**

Family involvement has a positive impact on children’s library experience. In this study, the Chinese respondents show greater parental involvement in library visits followed by the Indians and the Malays. The reason behind this maybe because a large number of respondents come from this particular racial background. After further

observation, there are several types of parental involvement in their child's library visit. Among the possible scenarios are instances where the parents drop off and pick up the children at a later time or parent or child selects books alone independently of each other, or instances where either the parent or the child selects materials sometimes independently or together and where the parents or child read together regardless of who chooses the books. These types of parental involvement are important especially when parents take an active interest in the literary experience of their children (Reicheenauer, 1994). Parental involvement in a child's reading program reflect their reading proficiency and positive attitudes toward reading, which could make a great difference in the development of their child's reading ability and interests (Alden, 2003).

### **5.2.3 Children's Criteria for Using the Public Library**

Children who visit the library seem to have a positive feeling towards the library of their choice. The stimulating atmosphere of the libraries encourages children to turn to library for recreational as well as revision purposes. Large collection of books is the most preferred criteria of the public library especially among older children, compared to other criteria such as attractive environment, strategic location and activities offered by the library; which younger children prefer. However, the environment of the library seems to affect younger children more than the older children. Libraries with bright children friendly areas provide a welcoming environment for the children thus making them more comfortable (Elkin, 1996, p121).

## **5.2.4 Method Children Use to Select Books to Read or Borrow**

### **(a) Information Seeking Strategies**

From the observation, shelves browsing seem to be the most popular method of locating books for recreational reading. This is supported by the analysis from the structured interviews which indicates significant relation between shelves browsing and visiting the library for recreational purposes and also from previous studies conducted by Wicks (1995) and DeAngelo et. al, (1997). One of the most striking features of the information seeking activity is the way in which the children obtain their materials (selected books) using a combination of strategies and search dimensions with increasingly focused action moving from macro to micro levels ( Belkin et al, 1993; Shenton & Dixon, 2004a). Comparisons are made between the shelves behaviours being exhibited by the children and Belkin et al's Information Seeking Strategies (1993).

When a respondent enters a library, they would browse with either a well-defined goal (to find a book by an author or series) or a semi-defined goal (find books on a subject or genre) or an ill-defined goal (find something of interest) (Chang, 1995; cited in Cooper 2002). Examples of browsing with a well-defined goal are when the respondent made a direct approach to the intended shelf, or exhibit minimal browsing in their process of selecting books based on the author or series. This is similar to the Category 3 and Category 4 of shelf browsing behaviours exhibit by respondents of this study.

The Category 3 shelf behaviours consists of Search/Select/Specify/Info strategy, which is similar to Belkin's et al (1993) ISS-15. This is followed by

Scan/Select/Recognize/Info strategy which is similar to ISS-5. Meanwhile, the Category 4 shelf behaviour of the present study, which includes Search/Select/Recognize/Info strategy and Scan/Select/Recognize/Info strategy is similar to Belkin et al's (1993) ISS-13 and ISS-5, respectively. The similarities of ISS-5 strategy could be seen in both of the shelf browsing category which is also the most commonly observed search behaviour in the other category. These strategies may be associated with a concrete browse approach rather than an abstract analytic approach to information seeking. The children visually scan and recognize then physically select books or pictures (Cooper, 2002). The importance of selecting books by specific author could be seen among older respondents (10 to 12 years old) as stated by Machet (2002) and Wicks (1995), while for series, children of all ages could be seen to favour certain series such as Enid Blyton and Bookworm. This reflects children's knowledge of the library and its resource organizations which is resulted from their frequent library visits and past reading experience (Wicks, 1995). Those who understand the organization of the resources in the library are able to specify their reading interest and able to browse from one shelf to another effectively and with more focus.

Children who browse for books on their favourite subject or genre are categorized to have a semi-defined goal since the focus of their search are broader as exemplified by respondents who indicate preference for adventures and mystery books; or non-fiction books on Forensic Science, Airplane and World War. Appleyard (1990, cited by Machet, 2002) asserts that children between the ages of 7 to 12 predominantly read adventure stories or fiction books that can be loosely identified as 'adventure', because this label

can be applied to a considerable range of stories available in a library. Thus, the search for fiction books could expand to different shelves of fiction books especially when the choices of books on a specified genre without putting importance on the author or series. Searches for non-fiction book however, would be easier since the books are organized based on its subjects. These children tend to have prior reading experience demonstrated by their ability to specify their interest and needs, but not necessarily a frequent library visitor.

Browsing with semi-defined goal seems to be exemplified by the shelf browsing behaviour recorded in Category 2 of the present study. The strategies involved in this category and the similarities with Belkin et al's (1993) Search Dimensions are Scan/Learn/Recognize/Meta-Info (ISS-2), Scan/Learn/Recognize/Info (ISS-1), Scan/Select/Specify/Info (ISS-7, Scan/Select/Recognize/Info (ISS-5), Search/ Select/ Specify/ Meta-Info (ISS-16) and Search/Select/Specify/Info (ISS-15).

According to Belkin et al (1993), the ISS-1 and ISS-2 represent a typical unformulated and unspecified information seeking strategy, which could be seen during the initial process of book selection of the children who exhibited Category 2 shelf behaviour. ISS-7 involved scanning occurs in conjunction with retrieval by specification, in which the respondent know precisely what subject or genre they are looking for, but could not locate the book. They need to browse through the shelves in order to discover how the books in the libraries are being organized. Once the book is retrieved, they would scan the content by flipping through the pages to recognize the subject or topic.



This is scanning with retrieval by recognition (ISS-5), a strategy which is also presented in Category 3 and 4 shelf behaviours. ISS-16 and ISS-15 are the typical example of highly specified search. The increasingly focused strategy from unformulated and unspecified information seeking strategy to the highly specified towards the end of the search supports the findings from Shenton & Dixon (2004a) which stated that information seeking process is a convergent action - moving from macro to micro level.

The last type of browsing is similar to those found exhibited by the respondents in the present study is browsing with an ill-defined goal (search for something of interest). This method of browsing is indicated by younger children of 7 to 9 years of age. The respondents are looking for any book of interest, thus making them more adventurous and experimental readers. This is supported by other studies which indicate that younger children read more widely than older children (Mauck & Swensen, 1949; Ashley, 1970; cited in Sturm, 2003). It is possible that they need every kind of experience and like to experiment until they can get to develop the reading habit, interests and become expert readers (Machet, 2002).

Subsequently, the same browsing method could also indicate the level of experience the respondents have with the library, especially for the first time or occasional visitor. These respondents might have limited knowledge of the library, which explained their explorative behaviour of not limiting their browsing at the shelves but also extend to tables and displays searching for books of interest. Their constant movement from one shelf to another could also mean they are familiarizing themselves

with the layout and are attempting to understand the organization of the collections and the purpose of the library's classification system (Lavery, 2002).

Browsing with ill-defined goal seems to be similar with shelf browsing behaviour recorded in Category 1, which consists of Scan/Learn/Recognize/Meta-Info (ISS-2), Scan/Learn/Recognize/Info (ISS-1), Scan/Select/Recognise/Info (ISS-5) and Search/Select/Specify/Info (ISS-15) strategy. The combinations of strategies also showed the increasingly focused action from macro (ISS-2 and ISS-1) to micro search level (ISS-15).

However, it is interesting to note that a small percentage of respondents locate the book for recreational reading by referring to the call number which is similar to Category 3 shelf behaviour. These respondents are of the age 10-12 years old, which according to Piaget is the transition stage from middle childhood to pre-adolescence (cited in Brown, 2004). This is when children's logical thought processes develop and at this stage it is suitable to teach the children to locate items using the catalogue and call numbers (Kuhlthau, 1986). They have the capability to understand the function of call numbers which would facilitate them in locating similar books for their future reads. The children in the present study are being taught by their parents to recognize and understand the organization of the library.

The comparison between the shelves behaviours being exhibited by the children and Belkin et al's Information Seeking Strategies (1993) are summarized in Table 5.1.

| Category | Shelf Behaviour   | STRATEGY |        |       |        |           |         |          |      | Belkin et al's (1993) Information Seeking Strategies |        |
|----------|---|----------|--------|-------|--------|-----------|---------|----------|------|--|--------|
|          |   | METHOD   |        | GOAL  |        | MODE      |         | RESOURCE |      |  |        |
|          |   | Scan     | Search | Learn | Select | Recognize | Specify | Info     | Meta |  |        |
| 1        | Look at the signage   | X        |        | X     |        | X         |         |          |      | X  | ISS-2  |
|          | Browse from 1 place to another (shelf/table/display)for any interesting book                                    | X        |        | X     |        | X         |         |          | X    |  | ISS-1  |
|          | Select book (by cover) which appear interesting   | X        |        |       | X      | X         |         |          | X    |  | ISS-5  |
|          | Flip the pages to know about the content  | X        |        | X     |        | X         |         |          | X    |  | ISS-1  |
|          | Close examination of pages and pictures   | X        |        |       | X      | X         |         |          | X    |  | ISS-5  |
|          | Directly approach a shelf to select book based on specific characteristics from the cover (author/title/series) |          | X      |       | X      |           |         | X        | X    |  | ISS-15 |

| Category | Shelf Behaviour   | STRATEGY |        |       |        |           |         |          | Belkin et al's (1993) Information Seeking Strategies |        |
|----------|---|----------|--------|-------|--------|-----------|---------|----------|--|--------|
|          |   | METHOD   |        | GOAL  |        | MODE      |         | RESOURCE |  |        |
|          |   | Scan     | Search | Learn | Select | Recognize | Specify | Info     |  | Meta   |
| 2        | Look at the signage   | X        |        | X     |        | X         |         |          | X  | ISS-2  |
|          | Browse from 1 place to another (shelf/table/display) for any interesting book                                   | X        |        | X     |        | X         |         | X        |  | ISS-1  |
|          | Select book based (by cover) on specific subject or topic   | X        |        |       | X      |           | X       | X        |  | ISS-7  |
|          | Flip the pages to search for specified topic or subject   | X        |        |       | X      | X         |         | X        |  | ISS-5  |
|          | Check the table of content or index   |          | X      |       | X      |           | X       |          | X  | ISS-16 |
|          | Directly approach a shelf to select book based on specific characteristics from the cover (author/title/series) |          | X      |       | X      |           | X       | X        |  | ISS-15 |

| Category | Shelf Behaviour   | STRATEGY |        |       |        |           |         |          |      | Belkin et al's (1993) Information Seeking Strategies |
|----------|---|----------|--------|-------|--------|-----------|---------|----------|------|--|
|          |   | METHOD   |        | GOAL  |        | MODE      |         | RESOURCE |      |  |
|          |   | Scan     | Search | Learn | Select | Recognize | Specify | Info     | Meta |  |
| 3        | Directly approach a shelf to select book based on specific characteristics from the cover (author/title/series) |          | X      |       | X      |           | X       |          | X    | ISS-15   |
|          | Check the content for relevancy by flipped the pages or read blurbs   | X        |        |       | X      | X         |         |          | X    | ISS-5  |
| 4        | Browse the shelf to select book on specific characteristics from the cover (author/title/series)                |          | X      |       | X      | X         |         |          | X    | ISS-13   |
|          | Check the content for relevancy by flipped the pages or read blurbs   | X        |        |       | X      | X         |         |          | X    | ISS-5  |

**Table 5.1 – Comparison between Shelves Behaviours Exhibited by the Children and Belkin et al's Information Seeking Strategies.**

Throughout the book selection process, children not only exhibit different behaviours, but also different types of emotions. According to Kuhlthau (2006), in the early stages of book selection process, children are observed to show some uncertainty, confusion and frustration which is associated with vague, unclear thoughts about a topic. As their knowledge states shifts to more clearly focused thoughts, as shown with a more focus book selection strategy, a parallel shift occurs in feelings of increased confidence. This is when the children receive assistance especially when they cannot find what they are looking for, which is exhibited through the interaction process with their companions. The companion is considered to be the intermediary in the children's search process.

**(b) Book Selection Criteria**

Fiction books are hugely popular among children compared to non-fiction books. Children between the ages of seven and twelve read predominantly fiction, and when they read non-fiction it is most likely to be alongside works of fiction as similarly indicated by Wicks (1995), Sturm (2003) and Halls & Coles (1999) This is in contrast to the findings from the study conducted by National Library of Malaysia (1996) which stated the majority of the children prefer knowledge books to fiction.

Among the characteristics which are being considered by the respondents when selecting their books in the public library are book covers, storyline, illustration, favourite series/authors, subject/genre and relevant contents. The two most popular characteristics in book selection are book cover and storyline which could be identified from the shelf behaviours exhibit by the respondents. While scanning the shelves for books for

recreational reading, they would select the book by its cover. Covers are important in attracting readers, especially among younger readers with emphasis on beautiful illustrations, bright colours, design and typography (DeAngelo, 1997; Machet, 2002; Fogget, 2003). The older children chose their books based on the blurb and other pieces of writing such as extracts from reviews found on the cover. By reading the blurbs and flipping the pages, the respondent is provided with a brief synopsis of the book. This kind of selection based on storyline is relatively high among older children between the ages nine and twelve years old. Children at this stage have the cognitive ability and flexible to process the textual information confronting them and translating it according to their needs (Cooper, 2002; Sturm, 2003)

Illustrations are the most important factor influencing choices made by younger children between the ages of 7 and 9 years old. Illustrations help support younger readers to develop their reading habits and become expert readers (Machet, 2002). Children at this stage relies heavily on visual information and are often attracted to colourful illustrations (DeAngelo, 1997; Cooper, 2002; National Library of Malaysia, 1996). Respondents' are more likely to choose book on certain subject when it is recommended by their siblings. When selecting non-fiction books, respondents would make their choices based on the books comprising their favourite subjects or contain relevant information. This shows that the use of non-fiction books is largely utilitarian; which is for revision while doing school work or for general interest (Wicks, 1993). This is inline with the findings from the National Library of Malaysia's readership survey (1996).

The respondents in this study also tend to borrow more English books from the library compared to Malay books. Chinese respondents are more likely to borrow English book frequently than Indian and Malay respondents. This relates to the findings from the study conducted by National Library of Malaysia (1996), in which it is found that Chinese and Indian respondents have a higher reading proficiency in English could be compared to the Malay respondents. On the other hand, Malay respondents are more likely to borrow Malay books more frequently than Chinese and Indian respondents. This finding again reflects the findings from the National Library of Malaysia (1996) where the ability to read Malay, Chinese and Tamil are race-specific. Respondents who are being accompanied by their parents are more likely to borrow at least one English book each time they visit the library than the respondent who is not being accompanied by their parents. More respondents borrowed at least one Malay book during their visit to the library, without being accompanied by their parents than those who visited with their parents. These show that parental influences maybe related to the children's choice of book to read and subsequently affected by the current education system, which emphasis on the usage of English (Sturm, 2003).

#### **5.2.5 Information Seeking Patterns of Children in the Public Libraries when Choosing a Book**

Children show certain strategies while going through an information seeking process. These strategies are observable by examining what the children actually do and the steps taken when they search for information (Hayden, 2001). Based from these observations, information seeking models are developed which incorporates the



characteristics of Information Seeking Process such as those proposed by Wilson (1981) and Krikelas (1983) which depicted the traditional library instructions and Big6™ Skills proposed by Eisenberg and Berkowitz (1990).

In this study, the observations and interviews have resulted in encapsulating the searching behaviour exhibited by respondents in a non-linear process model (Figure 5.1). The proposed model suggests that the respondents perceive a need in the context of their environment. In this context the given environment or event is recreational reading or revision for examination, where the child will perceive an information need. For example, children visiting the library to obtain recreational reading materials will search for books based on their interest (interest driven). Meanwhile, children who visited the library to do revision for an upcoming examination would search for materials related to the topic of the school work. The perceived need will lead the user to search for information, making demands upon a variety of information sources. These information sources include information systems (the public libraries and materials within it) and human resources (librarians, peers and parents). Information seeking strategies in the model suggests that information seeking is not always linear or a step-by-step process. It accommodates branching and jumping in and out of sequence. This behaviour is similar to the criteria proposed in the Big6™ Skills process. According to Eisenberg and Berkowitz (1990), as one's knowledge of a subject grows, different avenues and sources are opened and need to be investigated. It is expected that gaps in knowledge will be identified as the found information is processed. This results in going back and perhaps re-identifying the task or implementing new information seeking strategies.

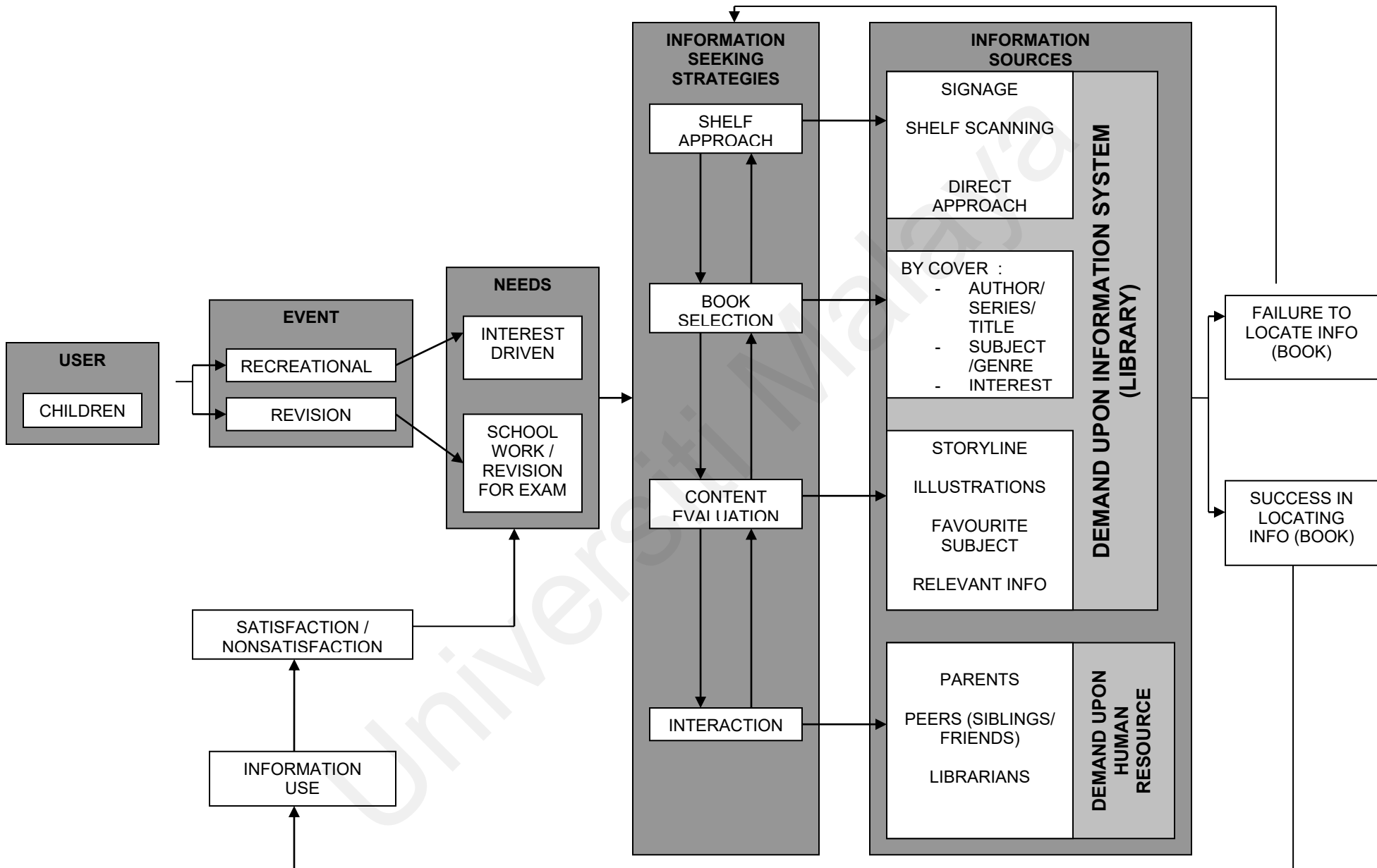


Figure 5.1 – The Non-Linear Information Strategy Model

The information seeking strategies selected would lead to a success or failure. If successful, the book is located and will be used. This may result in satisfaction or non-satisfaction of the original perceived need. With non-satisfaction, the information seeking process may be repeated until satisfaction occurs.

### **5.2.6 Primary Reference Sources and Services Use by the Children**

From the interview, the children stated they are more likely to refer to their companion if they faced any difficulties when choosing books in the public library. Children faced problems with assigning standard subject headings to materials they needed because they lack knowledge and have limited vocabulary skills. This is supported with the interaction being exhibited by some of the respondent and their companions, such as parents, siblings and friends; through out the different stages of their search in the two public libraries. The popularity of using other people especially parents and friends in order to gain interest-driven information was also reported in the study by Fogget (2003), Shenton and Dixon (2003), Walter (2003) and Everhart and Hatcher (2005), which attribute this behaviour to convenience and also to the fact that conversation is a natural human enquiry activity.

However, the children stated librarians are the primary reference sources for them when searching for books which contain relevant information to their needs. This is an important aspect which both public libraries should take note, since the presence of children librarian is non-existence in both libraries. The children regard the personnel behind the circulation counter as the librarian and therefore make their reference query at these points. The experiences children have in the library between the ages of 7-12 years old would affect the way they use the

libraries in adolescence and adulthood (Kuhlthau, 1986; cited in Brown, 2004). It is important for library to deliver a quality reference service to the young to ensure that they would continue to use the library throughout their lives (Burton, 1998).

### **5.2.7 Problems Children Face when Using the Public Libraries**

The majority of respondents did not encounter any problems when choosing books in the public library. This is expected since the main reason for the respondents visit was to seek books for recreational reading. The reference needs of children are primarily driven by the requirement to seek information to enable them to complete a given school assignment (Gross, 2000). When they browse books for recreational reading, the topics are based on their personal interests, which children already have some degree of understanding and considerable background knowledge of the topic (Brown, 2004). However, those who did face problems indicate that their biggest problems would be knowing where to start searching for books. For the very young or older inexperienced searcher, limited knowledge of the library's organization and resource content may impact the searcher's feelings during the browsing situation (Cooper, 2002). They lack an understanding of shelving conventions, the purpose of the classification system, and the sequencing of books from the highest to the lowest shelf with continuation on the adjacent section (Lavery, 2002). The inability to determine the starting point in searching for books could also be the result from being overwhelmed with the huge collection of books. This is 'information overload' and is identified as a significant information-seeking phenomenon. Overload often did not emerge among either older or younger children searching for interest related books because they could determine the boundaries of their information seeking process (Shenton & Dixon, 2004).

### **5.3 Significance and Implications**

The findings of the study have many implications for the public library services. Libraries could create a child-friendly service by providing suitable materials and books for children of all ages with proper development and management of the collections. Libraries could also determine the exact level of reference services that should be provided to the children. Library personnel need to have an understanding of the different developmental stage a child goes through. Which affects their information needs in order to be able to deliver quality services to the children.

The information seeking patterns shown by these children could provide the library with knowledge in anticipating children's need and behaviour. Therefore a more child-centered environment in the library could be created. The libraries also should conduct information literacy classes which could educate the children on the organization of a library and get acquainted with the arrangement of the collections and facilities available. Children therefore could realize the role of a library is more than a book depository.

For further research is necessary to address individual issues in greater detail than this study allowed. It would be useful, for example, to use triangulation method which allows more than one researcher conducting the observation and interview. Therefore, a more thorough and longer observation session could be conducted to record the exact sequences of information seeking strategy adopted by each children. It is also valuable to have the aid of researchers fluent in different mother tongues to minimize the misunderstandings of the terms and questions during the interview sessions.

## 5.1 Summary

Results of this study indicate that:

1. The main reason for children to visit a public library is for recreational purposes, followed by for revision purposes. These relates to the role of children's libraries defined by UNESCO's Public Library Manifesto (IFLA, 1995), Public Library Research Group United Kingdom (Brown, 1979) and Library Association Guidelines (Library Association, 1991); which is to provide children with access to information they are looking for, as well as to encourage reading for enjoyment so that the children would not lose the creative side of their development.
2. Browsing seems to be the most popular method of locating books for recreational reading. Browsing requires lower cognitive load, basic information seeking skills and relies more on visual information. This is in keeping with findings by Cooper (2002).
3. The information seeking patterns of the children in the public library is adapted from the Information Seeking Model by Wilson (1981) and Krikelas (1983), which focus on the skill related to locating, accessing and using sources. However, the information seeking strategies in the model suggest non-linearity, in which the children could branch or jump out of the sequences. This results in going back and perhaps re-identifying the task or implementing new information seeking strategies which is apparent in Big6™ Skills Model introduced by Eisenberg and Borkowitz (1990).
4. The children are able to successfully use meta-information in textual format such as signage in directing them to specified shelves. Some sources of meta-information took

the form of other people, which includes parents, peers and librarians as suggested by Shenton and Dixon (2004a). These two are the primary reference sources for the children.

5. The presences of special children's librarians are non-existence in the two libraries. Children and parents alike, when seeking for specific information, might need the assistance of librarians, especially among first time visitors. A proper guides and reference services would increase the confidence level of the users to ensure that they would continue using the library and remain the patron of the future (Burton, 1998).

Universiti Malaysia

## REFERENCES

- Alden, Krisen C., Lindquist, Jane M. and Lubkeman, Carrie A. 2003. *Using literature to increase reading motivation*. M.A diss. Saint Xavier University, Chicago.
- American Library Association. 1989. *Presidential committee on information literacy: final report*. Available at: [http://www.ala.org/Content/NavigationMenu/ACRL/Publications/White\\_Papers\\_and\\_Reports/Presidential\\_Committee\\_on\\_Information\\_Literacy.htm](http://www.ala.org/Content/NavigationMenu/ACRL/Publications/White_Papers_and_Reports/Presidential_Committee_on_Information_Literacy.htm) (accessed 24 September 2005)
- American Library Association. 2002. *Family literacy – helping parents help their children*. Available at: <http://www.ala.org/pio/factsheets/familyliteracy.html>
- Appleyard, J.A. 1990. *Becoming a reader: the experience of fiction from childhood to adulthood*. Cambridge: Cambridge University Press
- Ashley, L.F. 1970. Children's reading interests and individualized reading. *Elementary English* 47: 1088-96
- Australian Capital Territory Department of Education & Training and Children's Youth & Family Services Bureau. 1997. *Information access curriculum support paper: incorporating information literacy and information technology*. Canberra: ACT Department of Education & Training and Children's Youth & Family Services Bureau.
- Belkin N.J, Marchetti P.G, and Cool C. 1993. BRAQUE: design of an interface to support user interaction in information retrieval. *Information Processing & Management* 29 (3) pp. 325-334
- Booker, D, editor. 1993. *Information literacy: the Australian agenda: proceedings of a*



conference conducted by the University of South Australia Library held at Adelaide College of TAFE 2-4 December 1992. Adelaide: University of South Australia Library.

Brandt, Mary and Isaacson, Kristi. 1998. *Study of reading comprehension and student enjoyment of reading as related to literature discussions*. M.A diss. Saint Xavier University, Chicago.

Broch, Elena. 2000. Children's search engines from an information search process perspective. *School Library Media Research* 3. Available at: <http://www.ala.org/ala/aaslpubsadjournals/slmrb/slmcontents/volume32000/childrens.htm>

Brown, Anita. 2004. Reference services for children: information needs and wants in the public library. *The Australian Library Journal*, August 2004: 261-274

Brown, R. 1979. Public library aims and objectives: children's services. *Library Association Record*, 81 (8).

Bruce, C. 1997. *The seven faces of information literacy*. Blackwood, South Australia: Auslib.

Bruner, J.S. 1966. *The process of education*. Cambridge: Harvard Univ. Press.

Burton, MK. 1998. Reference interview: strategies for children. *North Carolina Libraries*, 56 : pp10-113

Capra, S and Ryan, J. 1999. *ILPO- Information Literacy Planning Overview P/K – 7 revised edition*. Queensland: CRA Publising.

Chang, S. 1995. *Toward a multidimensional framework for understanding browsing*. PhD thesis, State University, New Jersey.

- Connor-Linton, Jeff. 2003. *Chi Square Tutorial*. Available at [http://www.georgetown.edu/faculty/ballc/webtools/web\\_chi\\_tut.html](http://www.georgetown.edu/faculty/ballc/webtools/web_chi_tut.html)
- Cooper, Linda Z. 2002. A case study of information seeking behaviour in 7-year-old in a semistructured situation. *Journal of the American Society of Information Science and Technology*, 53 (11): 904-922
- Creaser, Claire and Maynard, Sally. *A survey of library services to schools and children in the United Kingdom 2003-2004*. Loughborough: LISU, 2004.
- DeAngelo, Nancy, Karyl Reents and Connie Zomboracz. 1997. *Improving reading achievement through the use of parental involvement and paired reading*. M.A. diss., Saint Xavier University, Chicago.
- Dervin, B. 1983. An overview of sense-making: concepts, methods and results to date. Paper presented at the Annual Meeting of the International Communications Association, Dallas, Texas. May.
- Doiron, Ray. 2003. Motivating the lifelong reading habit through a balanced use of children's information books. *School Libraries Worldwide*, 9 (1): 39-49
- Doyle, C. 1994. *Information literacy in an information society: a concept for the information age*. Syracuse, NY: Center for Science and Technology.
- Eisenberg, Michael B. 2001. *A Big6™ Skills Overview*. Available at: <http://www.big6.com/showarticle.php?id=16>
- Eisenberg, Michael B. and Robert E. Berkowitz. 1990. *Information problem-solving: the*

*Big Six Skills approach to library and information skills instruction.* Norwood, NJ: Albex Publishing

Elkin, Judith. 1996. The role of the children's library. In *Focus on the child: libraries, literacy and learning*. Written and edited by Judith Elkin and Ray Lonsdale. London: London Library Publications.

Everhart, Nancy and Hatcher, April M. 2005. How relevant are standardized subject headings to school curricula? *Knowledge Quest*, 33 (4): 37-39

Eyre, Gayner. 2003. Back to basics: the role of reading in preparing young people for the information society. *Reference Services Review*, 31 (3): 219-226

Fagan. 2000. Family literacy: five steps to success. *Literacy Today*, 24. Available at : <http://www.literacytrust.org.uk/pubs/fagan.html>

Filipenko, Margot. 2004. Constructing knowledge about and with informational texts: implications for teacher-librarians working with young children. *School Libraries Worldwide*, 10 (1): 21-36

Foggett, Tracy. 2003. Information literacy at the primary school level? *The Australian Library Journal*, Feb 2003, 55-62

Garson, David. 2005. *Quantitative methods in public administration: sociometry and network analysis*. Available at: <http://www2.chass.ncsu.edu/garson/pa765/sociometry.htm>

Gross, Melissa. 1997. Pilot study on the prevalence of imposed queries in a school library media center. *School Library Media Quarterly*, 25 (3): 157

Gross, Melissa. 1999. Imposed queries in the school library media center: a descriptive

- study. *Library and Information Science Research*, 21 (4): 501-521
- Gross, Melissa. 2000. The imposed query and information services for children. *Journal of Youth Services in Libraries*, 13 (2): 10-17
- Hall, Christine and Coles, Martin. 1999. *Children's Reading Choices*, London; New York: Routledge.
- Hannon, P. 1996. *Literacy, home and school: research and practice in teaching literacy with parents*. London: Falmer Press.
- Hayden, K. Alix. 2001. *Information Seeking Models*. Available at: <http://www.ucalgary.ca/~hayden/seeking.html>
- Horning, K. 1994. How can I help you? The joys and challenges of reference work with children. *Show Me Libraries*, 45 : 9-19
- Hyman, R. 1972. *Access to library collections: an inquiry into the validity of the direct shelf approach, with special reference to browsing*. Metuchen: Scarecrow Press.
- IFLA (International Federation of Library Associations). 1995. *UNESCO public library manifesto*. Available at : <http://www.unesco.org/webworld/libraries/manifestos/libraman.html>
- IFLA (International Federation of Library Associations & Institutions). 2003. *Guidelines for children's libraries services*. Available at : <http://www.ifla.org/VII/s10/pubs/ChildrensGuideline.pdf>

- Krikelas, James. 1983. Information-Seeking Behavior: Patterns and Concepts. *Drexel Library Quarterly* 19 (2): 5-20.
- Kuhlthau, C. 1986. Stages in child and adolescent development and implications for library instructional programs. In *Information seeking: basing services on user's behaviours*. Edited by J Varlejs. North Carolina: McFarland.
- Kuhlthau, C.C. 1992. *Seeking meaning: a process approach to library and information services*. Norwood, New Jersey: Ablex Publishing
- Kuhlthau, C. C. 1999. Accommodating the user's information search process: challenges for information retrieval system designers. *Bulletin of the American Society for Information Science*, 25 (3): 12-16.
- Kuhlthau, Carol Collier.2006. *Information search process: a search for meaning rather than answers*. Available at:<http://www.scils.rutgers.edu/~kulthau>
- Lamb, Annette. 2003. *Information inquiry for teachers*. Available at:  
<http://eduscapes.com/info/isp.html>
- Laverty, Corinne. 2002. The challenge of information seeking: how children engage in library work, *Feliciter* 48 (5)
- Library Association. 1991. *Library Association Guidelines*. Available at  
[http://www.la-hq.org.uk/directory/prof\\_issues/lasg.rtf](http://www.la-hq.org.uk/directory/prof_issues/lasg.rtf).
- Machet M P. 2002. Young people's reading interests in South Africa, *Mousaion* 20 (1): pp 44-72

Mackehnie, Lynne E.F. 2000. Ethnographic observations of preschool children. *Library and Information Science Research*, 22(1): 61-76

Marchionini, G. 1985. *Information seeking in electronic environments*. Cambridge: Cambridge University Press.

Mauck, Inez and Swenson, Esther. 1949, A study of children recreational reading, *Elementary School Journal* 144 (50).

Mohan Palaniandy. 1998. *Information needs of children: an exploratory qualitative study*. MLIS diss. University of Malaya.

Moreno, Jacob L. 1934. *Who shall survive?* Washington, DC: Nervous and Mental Disorders Publishing Co

National Library Malaysia (1998). *Reading Profile of Malaysians 1996: report of a study*. Kuala Lumpur : Perpustakaan Negara Malaysia.

ODLIS. 2005. *Online dictionary for Library and Information Science*. Available at: <http://lu.com/odlis/>

Piaget, J. and Inhelder, B. 1969. *The psychology of the child*. New York: Basic Books.

PNM (Perpustakaan Negara Malaysia) 2003. *Bulan Membaca Kebangsaan*. Available at <http://i-baca.pnm.my>

- Reference and User Services. 2000. *Guidelines for information services*. Available at:  
<http://www.ala.org/ala/rusa/rusaprotools/referenceguide/guidelinesinformation.htm>
- Reichenaur, Linda. 1994. *Parent-child library interactions: an observational study*.  
Available at: [http://www.eric.ed.gov/ERICDocs/data/ericdocs2/content\\_storage\\_01/0000000b/80/27/2e/f2.pdf](http://www.eric.ed.gov/ERICDocs/data/ericdocs2/content_storage_01/0000000b/80/27/2e/f2.pdf)
- Ridout, S.R. 1992. *Do children come by their reading problems honestly?* New Albany,  
IN: Indiana University Southeast.
- Shenton, A.K. and Dixon, P. 2003. Youngsters' use of other people as an information-seeking method. *Journal of Librarianship and Information Science*, 35 (4): 219-233
- Shenton, Andrew K. 2004a. The application of information-seeking concepts to the behaviour of young people. *Education Libraries Journal*, 47 (3): 5-10
- Shenton, Andrew K. 2004b. Young people's use of non-fiction books at home: results of a research project. *Journal of Librarianship and Information Science*, 35 (2): 69-77
- Shenton, Andrew K. and Dixon, P. 2004a. Issues arising from youngsters information-seeking behaviour. *Library & Information Science Research*, 26: 177-200
- Shenton, Andrew K and Dixon, P. 2004b. The nature of information needs and strategies for their investigation in youngsters. *Library and Information Science Research*, 26 : 296-310

- Siti Aishah Sheikh Kadir. 2003. *Experience and efforts in literacy programmes: brief country report*. Available at: [http://www.pnm.my/ReadingArticles/Experience and Efforts in Literacy Programmes.pdf](http://www.pnm.my/ReadingArticles/Experience%20and%20Efforts%20in%20Literacy%20Programmes.pdf)
- Spick, J. 1989. *Children as readers: a study*. London: Clive Bingley.
- Sturm, Brian W. 2003. Dogs and dinosaurs, hobbies and horses: age-related changes in children's information and reading preferences. *Children and Libraries*, 1(3): 39-51.
- Triola, Mario F. 2001. *Elementary Statistics*, 8<sup>th</sup> ed. Boston : Addison & Wesley.
- Van Teijlingen, Edwin R. and Vanora Hundley. 2001. The importance of pilot studies. *Social Research Update*, Winter (35). Available at : <http://www.soc.surrey.ac.uk/sru/SRU35.html>
- Vygotsky, Lev. 1962. *Thought and language*. Cambridge: MIT Press.
- Vygotsky, Lev. 1978. *Mind in society: the development of higher psychological processes*. Cambridge: Harvard Univ. Press.
- Walter, Virginia A. 2003. Public library service to children and teens: A research agenda. *Library Trends*, 51 (4): 571-589
- Wicks, Jonathan. 1995. Patterns of reading among teenage boys: The reading habits and book preferences of 13-15-year-old boys. *New Library World*, 96 (1122): 10-16
- Wilson, T.D. 1981. On user studies and information needs. *Journal of Librarianship*, 37 (1): 3-15. Available at <http://informationr.net/tdw/publ/papers/1981infoneeds.html>