

CHAPTER FIVE

CONCLUSION

Introduction

This chapter presents an overview of the research findings in relation to the research objectives identified in chapter one. This chapter is divided into three parts. The first part deals with the discussions of results of the study. The discussion on the recommendations on policy and practices of information providers and caregivers to children is provided in the second part. This is based on the results of the study. This chapter is concluded with recommendations for further research.

Discussion of the Results

Primary Information Needs of Children

The results of this study indicate that, children especially those aged between ten and twelve have numerous information needs just like any others. The information needs of these children ranged from physiological related information to value and moral related information. All those information needs identified here clearly fits into Maslow's Hierarchy of Needs. Information needs of children seem to have a very close relationship with the basic needs of human identified by Maslow. Among all information needs, physiological and safety needs were identified as the most critical information needs of children. Those two needs are at the lower rung of Maslow's hierarchy of needs. The results seem to show that children's critical information needs are at the lower rung and less critical information needs are at the higher rung in

Maslow's hierarchy of needs. The results also show that adults have lot to say about the information needs of children. It also showed that adults felt that information can play a major role in children's developmental process. When we compare the results of the study with the findings of similar studies in other countries, we find some similarities in the results. Most adults seem to have the same perceptions on the issue of information environment of children. Koren (1993), for example opined that information affects the physical, emotional, cognitive, and social development of the child. Many adults in the present study would felt the same way as Koren did.

In general, this study supports the findings of earlier studies especially those carried out in the western countries. Walter's study (1994) in Southern California showed similar results in most aspects of information environment of children. However one information need that emerged prominently in the present study compared to Walter's study is the issue of information technology. This is not surprising as more adults are being made to understand the power of computers to children. The highlights of concepts such as Multimedia Super Corridor and Smart School by the government have also made adults to realize that computer skill is vital in acquiring information and knowledge for children. Computers and Internet indeed have enormous impact on people's life today. Abernethy (1984), Durrance (1989), and Scammell (1996) for example had strongly pointed out the advantage of computer knowledge and skills in the information age today.

The results of this study also indicate some unique information needs of children aged ten to twelve. Of the specific information needs mentioned as critical to children aged ten to twelve are sex education and information related to physical changes that take place when children reach puberty. Many respondents highlighted the relevance for children to know about menstruation and changes in their body. The respondents in this study also noted the importance of that information to children in order for children to take care of themselves. Besides that, adults also related this information to help children in safety, avoiding sexual abuse and mishandling by others. Thus this particular information is seen as a critical information to children aged ten to twelve.

In general, results also showed that most other information is vital to children in general. Information on physiology, health, nutrition, safety, reading habits, cultural awareness, self esteem, and values were mentioned as information needs of children irrespective of their age. This is evident from the responses given by respondents in the interviews.

Current Sources of Information to Children

Most respondents identified identical sources of information available to children today. Results of the study show that family is considered as the main source of information to children. Many adults identified the parents as the prime source of information to children including those aged ten to twelve. This was followed by teachers, peers, mass media, and others. Schools are found to be the second most important information source to children who are schooling. This point was reflected in

the interviews. Respondents mentioned that teachers and school play a major role in providing information to children next to family members.

Television was mentioned as the most influential mass media that provide information to children. However, adults felt that televisions fail to provide useful information to children. They also felt that more and more unwanted information are disseminated through the television programs to children. Other than the above-mentioned sources, results also show that professionals from government institutions, and social institutions also provide information to children through formal activities in school and home.

An interesting finding noted in this study in relation to information sources to children is the role of libraries especially the public libraries. Only a few respondents mentioned the public libraries as one of the important sources of information to children. This raises many questions regarding the status of the public libraries as an information warehouse in the four regions of the study. There could be many possibilities to this result. One possibility is that access to public libraries in Peninsular Malaysia in general is limited to a small portion of the population. It may also mean that public libraries in peninsular Malaysia in general are not effective in providing service to public especially to the children. The other possibility is that people including children do have access to many other information sources, which fulfill their information needs. Whatever the possibilities are, the result on this aspect certainly brings implication to our public library service.

It is also interesting to note that the respondents see the computers and Internet as an important emerging sources of information to children. Many researchers and information professionals stressed the same idea in their research findings. One example is Scammell's(1996) research report. He has pointed out that the Internet represents a potentially very valuable means of disseminating information and information professionals are ideally placed to exploit this facility.

While pointing out the available sources of information, the results of this study also show that many of those sources do not meet all the information needs of children. In fact, many adults expressed their disappointment over the inability of those sources providing information to children effectively. It was noted that information provided by those sources were inadequate, ineffective, and many times misinformed or gave the wrong information. Here again, the results of this study support the findings of earlier similar studies. We can infer from the result that the status of information environment of children in the four regions of the study is very much the same compared to the information environment of children in Southern California as in Walter's study (1994).

Unmet Information Needs of Children

The results also reveal that many questions and doubts raised by children including those aged ten to twelve go unanswered. Among the information needed by children, information on sex education, emergency procedures, communication and computer skills are found to be the information that children miss a lot. Sex education,

particularly at puberty, and changes that take place at puberty was perceived by many respondents as information that are mainly unfulfilled. Respondents also viewed that those unmet information were some of the most critical information to children especially those aged ten to twelve. Respondents also mentioned many factors affecting the fulfillment of the information needs of children.

The number of obstacles to meeting children's information needs was revealed in the results. Most of those obstacles seem to revolve around the ineffectiveness of the information providers. Some of the critical information needs of children are considered sensitive and difficult for much information providers to communicate to children. Lack of time to communicate with children and lack of communication skills among information providers are some of the obstacles in meeting the information needs of children. Some of this information considered critical to children and largely unfulfilled is particularly disturbing. When these unmet information needs compared with the notion that information affects the physical, emotional, cognitive, and social development of the child (Koren, 1997), we begin to worry about the status of children in information environment in Peninsular Malaysia. The result of the present study bears implication on policy and practices of information providers to children especially those children aged ten to twelve.

The comparison on the volume of information needs the extent of its fulfilment help us to draw a number of conclusions here. It is clear from the findings that children in the four region are information poor in general. This result showed little difference

compared to the Walter's study. Walter too concluded that children in Los Angeles and Santa Barbara in the United States were information poor. However the degree of information poverty between the two countries could not be determined as no data were collected to determine that. However one clear aspect is that, for those children who are already at the risk of not reaching their full potential and well being because of low social and economic status and other social factors, access to basic information could be a critical variable in their development.

When we look at the results of studies mentioned, we can positively assert that information environment of children seems to be the same in many countries around the world. Children seem to have much common information needs irrespective of places where they live. The status of access to information also showed many similarities, even though the degree may differ. Another conclusion that can be drawn from the findings is that besides economy, a number of social factors such as educational system and the value system of the society seem to have greater impact on the provision of information to children. Finally, it is also clear from the results that all parties from parents to government department and officers need to address this issue seriously and professionally in order to see improvement in the information environment of children in the region of the study. This was clearly reflected in the responses of adults who provided many suggestions as to what can be done to improve the quantity and quality of information that our children receive currently.

Implications and Recommendations

The result presented here has a number of implications on the policy and practices of the information providers in the four regions. First, information providers should be sensitive to the issues of information environment of children in this country in general. Most of the findings in this study pointing towards parents and family as the prime factor influencing the fulfillment of the information needs of children. As indicated by Ball (1994) the active involvement of parents in early childhood education brings great benefits to children. As such, parties concerned should focus their attention first on parents.

Parents should be made to take this issue seriously. They could also be furnished with all the necessary information, knowledge, and skills so that they can help their children to fulfill all the critical information needs. A serious participation of local professionals, leaders of religious society, and local community leaders is needed in establishing parenting clubs, and other children related organizations. With the establishment of such organization various activities like workshops, seminars, counseling sessions, and discussion sessions on child rearing, child communication skills, family raising, and other issues related to children can be carried out regularly. Marriage seminars and short parenting talks carried out by religious bodies are few good exemplars. However, those activities are not regular, and do not reach majority of the population. There should be regular programs where many parents can participate and gain all the necessary information to make them effective parents. Such

organizations and activities can also help parents to get assistance to resolve problems arise from time to time.

School and public libraries could also play a major role in helping parents as complementary steps to the above mentioned steps. Public libraries can contribute first by improving their collection for parents. To disseminate the information to parents, public libraries could also conduct programs especially for parents. Service delivery of information can also be introduced to parents who do not come to the library due to transportation and other related problems. Public libraries should develop close relationship with other local organizations, and professionals with the prime aim of better service to the public. Besides providing services, librarians should also carry out community based needs assessment including for children from time to time to identify the needs and wants of clients. This is very much needed to provide meaningful service to the clients.

The second step that needs to be is to provide all the critical information needed by children. The result of the study highlighted some major findings. The lack of reading habits among children, lack of information seeking habits and lack of knowledge on information technology are some of the critical findings noted in the study. These problems can be a serious threat to to become well-informed children and effective information seekers. Besides parents, teachers and librarians can help children in overcoming these problems. Besides teaching academic subjects in the class, teachers especially the primary school teachers can conduct programs for children to acquire the

reading habits, information skills, and information technology. More regular hands on programs on reading recovery, library skills, computer, and Internet can help children to overcome problems related to information skills. Searching reference and library catalogs, taking notes, checking bibliographies, searching in encyclopedia and dictionaries are some of the other important skills that need to be included in the hands on programs in school. The existing programs in schools such as reading week and training school children as librarians are good exemplars. However, more ongoing programs are needed for children to acquire those information, skills and to reinforce the knowledge that they receive.

In addition to teachers and schools, the education ministry also needs to play their role as to encourage and support the school programs. Latest development in our educational system such as new teaching and learning strategies, Smart Schools, and information technology based learning put great demand of information skills on school children. In order to accommodate these developments, the curriculum needs to be modified. Information skills should be made compulsory in the school curriculum. Educational practices in Malaysia also need to provide enough room for school children to apply information skills.

Public libraries can also contribute to improve the status of information environment of children. Librarians should aggressively collect and disseminate information to children using various methods. Today more information for children is found other than in traditional text books. Videotapes, pamphlets, magazines, Internet, and CD-ROMs are more popular formats and media used to store information for

children. These formats and media seem to be effective in getting the attention of children. As such public libraries should procure more such sources of information for children. Librarians should also find ways to encourage children to use those sources to get information that they want. In relation to this, libraries also need to introduce other programs like storytelling and reading competitions to encourage the use of books and other sources among children. Many information professionals have also stressed this point. Fasick (1984), for example, have indicated that children librarian's must learn more about children, media, and children's recreational and informational needs in order to develop library services which will enrich children and stimulate their intellectual development and imagination.

Most of our public branch libraries in general are rather small in collection and facilities. In addition to that, librarians without professional qualification manage most of those libraries. With new development in information technology, educational system and available sources of information, public libraries should also improve their status as an effective agent of information service. One such change needed urgently is to train children librarian in our public libraries. With trained children librarian in all the branch libraries, public libraries can carry out effective programs for children professionally. Children's reference desk, library orientation for children, and children participation programs are some of the services that can be provided to children effectively if there are trained children librarian around.

As to adding strength to other programs, mass media especially our television corporation can also play a major role in providing valuable information to our children. Since television is an influential media for children it can be well utilized to disseminate critical information to children. Programs catered for children and parents currently are not adequate. It provides more entertainment than informative information. Radio and Television Malaysia (RTM) and private stations could introduce more programs especially for children and parents. Programs to disseminate information on child health, nutrition, child safety, information technology for children, and parenting should be aired regularly.

Finally the issue of information needs of children should also draw attention of the professionals like doctors, government officers, police, fire fighters, and social leaders in the governmental agencies. This is also important as reflected by Garfield (1985) who stressed that:

“Information is the key to individual and personal survival
In fact, identifying the unmet information needs of society
ought to be the prime responsibility in promoting the widest
possible use of information facilities”

(Garfield, 1985: 7)

They could also extend their services outside their department by participating in programs and activities conducted by schools, libraries, and social organizations in relation to information to children.

UNESCO has also stressed the role of government in the information environment. After the introduction of the concept of National Information System (NATIS) by UNESCO in 1974, each country was expected to create its own national information system for the benefit of its people. Nevertheless, little has been achieved in this regard by many of the government agencies responsible for their task (Kularatne, 1997)

The contribution and cooperation of various components of the society towards fulfilling information needs of children would certainly bring changes in the status and well being of the children in the four regions and maybe whole of the country. If the above-recommended steps are put in action it is likely these children will be well informed and their smooth developmental process will be maintained.

Recommendations for Further Research

The study on information needs of children is relatively new in Malaysia. Hence further researches are needed. The result presented here needs further amplification and validation. This study also provides the groundwork for further research into the information environment of children in Malaysia. A number of new issues related to information needs of children are highlighted in this study. Some of those issues and aspects need further investigation. As such the researcher recommend the following area for further research.

(i) Replication of the present study.

This study only covered a small portion of the total children population in West Malaysia. A replicate of this study in East Malaysia is thus needed to know the information environment of children in Malaysia as a whole. It is also needed to make comparison between the two areas. This will be a useful study because of the variation in race, culture and economy of the two regions.

(ii) Information needs of children aged two to six.

It would also be useful to replicate the study focusing on children at other ages: two to six, seven to nine, and thirteen to fifteen. This is a different stage in the child's development. It will be interesting to see whether there is any difference in the information needs of children at this stage compared to children aged ten to twelve. Such additional studies will also help to develop knowledge on the area of information needs of children.

(iii) Information 'Want' of children.

Although this research is specifically targeted at adults as the most appropriate sources of data about children's information needs, it would be useful now to investigate information 'Want' of children, which is also a legitimate target for library services. Such study also would help compare between the 'Want' and 'Need'.

- (iv) Information needs of parents in relation to children.

This study finds parents as the most influential factor in the information environment of children. Thus a study would be useful to investigate information needs of parents in relation to providing information to children.

- (v) The status of public library service to children in Malaysia.

Adults involved in this study highlighted little importance of public libraries to children. However, we could not make any concrete conclusion on the effectiveness of these libraries to children. Hence, a study on this is also important because such study can highlight the implication of the status of those libraries on the information environment of children in Malaysia.

- (vi) The role of school libraries on information provision to children.

This will also be a useful area of study because the findings of such study would reveal how far those libraries help children in fulfilling their information needs. It will also help us to provide enough data to higher authorities to improve the services.

Conclusion

This qualitative empirical research has focused on information needs and other issues in the information environment of children aged ten to twelve. Data were obtained from in-depth interviews with fifteen adults mostly professionals who work with children in a variety of capacities. The findings provided list of critical information needs of those children. The results showed that the findings are closely related to Maslow's hierarchy of needs. This study showed similar results with studies conducted earlier, mostly in the western countries. Children especially those aged ten to twelve in Peninsular Malaysia are so lacking in the information that they need.

The findings have significant implications on the policy and practices of information provision to children. Nevertheless, more in-depth researches have to be carried out on many other factors relating to the information environment of children. As Durrance (1989) pointed out there must be continued research into information need that will result in better knowledge base and more thorough understanding of information needs.