

## **CHAPTER FOUR**

### **FINDINGS AND DISCUSSION**

#### **Introduction**

This chapter presents and discusses the findings of the study in five parts. The first part described the primary information needs of children. This is followed by the discussion of findings on the current information sources available to children. Discussion of findings on how far these sources met the information needs of children was presented in part three. Part four discussed the information, which are not currently available to children. This is followed by the discussion on the possible reasons why these children are not getting the information, which they need. Finally in part six the suggestions made by respondents on how to improve the quantity and quality of information that children receive currently are discussed.

The data were analyzed based on the open ended interview questions in the interview schedule. The report of findings is presented under five sub-headings based on the research question of the study. A summary of frequently mentioned words were grouped and tabulated. The findings of each research question are then compared with the findings of similar studies carried out in other countries, mostly in the United States. The findings explain how the respondents (adults) perceived each and every aspect outlined in this study.

As data were analyzed, it became clear that some needs were mentioned and given more importance than others.

### **Primary Information Needs of Children**

Respondents involved in the interviews gave exhaustive ideas and opinions on the issues of primary information (Vital information) needs of children aged ten to twelve. All fifteen respondents talked about the need for children to know physiological and safety related information. Personal hygiene for example was mentioned as a critical information need by ten of the fifteen respondents. A primary school teacher pointed out that, "The children including those aged between ten and twelve should be taught, how to take care of oneself and self cleanliness in order to avoid contracting sickness. The school nurse said, "children should be well informed about the contagious diseases like flu, how to prevent contagious diseases from spreading, and what should be done if one catch these contagious diseases in order to get well fast. Such information is crucial to children aged ten to twelve because this group of children usually has classmates and playmates of various health conditions." She stressed further that children of this age should also be taught about the non-contagious diseases like AIDS. According to her, children should know that touching and playing with the child who has AIDS is not harmful and that they shouldn't segregated and treated like a leper.

## **Physiological Needs**

Information on oral hygiene and healthy food was mentioned by a number of respondents to be crucial information that these children need to be furnished with. The doctor respondent said, "Cases related to consuming unhealthy and spoiled food among children are common in hospitals, especially children in the primary schools. Thus, children need to know about the importance of healthy food. This will enable them to steer away from unhealthy food, especially when they are free to select their food in the school canteens." He stressed that children should be fully aware of the consequences of eating unhealthy food. All the respondents felt that children should know about basic general health such as the immediate and long-term consequences of eating spoilt food. Few other respondents stressed cleanliness of dress and body parts including teeth as some vital information needs of children. The doctor also mentioned that children including in the age group of this study should be furnished with basic information on Juvenile Diabetics, and Asthma as more children contract these diseases, today. The school nurse also stressed the importance of knowing about child related diseases. "Let them know the importance of medication, and diet according to their health problem." she said.

Five respondents pointed out the importance of female children knowing physical changes that take place when reaching puberty. A parent said, "most girls at the age of ten and above reach puberty. They should be prepared for this and be made to understand the physical changes, and development, taking place within them as they near puberty. This will enable them to handle the developing changes well." The

schoolteacher and the parent also stressed the need for basic information about sex, especially the sexual organs and diseases related to children.

## **Safety and Security**

The second most frequently mentioned information needs of children by adults consulted in the study revolved around information related to child safety and security. Respondents perceived much information to be crucial to children in order to prevent unwanted incidents. The primary school teacher strongly felt that children aged ten and above should know how to say 'No' when they are being taken advantage of. She said, "At this age, children will come to the transition period from childhood to puberty. As such many children, especially girls, will be exposed to risky behaviors. So it's important that children are not abused in any way. Children should be taught whom to trust." She further expressed, " this includes ability to differentiate between good touch and bad touch by others, handling friends of the opposite sex, limits to any relationships." Most of the female respondents stressed the importance of the information mentioned above, especially to girls in order to avoid unwanted pregnancies, sexual abuse, sexually transmitted diseases and child abuse. A mother, who has an eleven-year-old daughter said, " children are sometimes taken advantage of, bullied or treated without dignity by others in places like schools. Many ill-treated children like this are in fear and do not know whether they should resist or allow that to continue. This is because parents, and teachers fail to provide them with information on their rights. So it's important to teach them of their rights and social limitations as an individual."



A number of respondents identified a few other crucial information related to children's safety and security. Local geographical knowledge, vital phone numbers, emergency procedures and basic survival techniques were perceived to be vital by these respondents. These respondents pointed out that, children especially those who are schooling are involved in road accidents, vehicles, meeting strangers, and succumb to emergency situations in their daily routine. "Children are exposed to lots of dangerous situations, daily." as stated by the schoolteacher.

The kindergarten teacher said, "Children especially those who are schooling, should be furnished with some local geographical information. Information like where the child's school is located, how far is the school from the child's home, how to get there, mode of transport available to school, route map to child's routine destination would help a child who get lost. In such situations sense of direction would help a child to find his or her way out." She added, " Other than sense of direction, it's important for children to remember important phone numbers like emergency calls, home, office or parents hand-phone. When children are involved in emergency situations, these contact numbers will be very useful to them. This will help them to handle demanding or dangerous situations."

The primary school teacher mentioned the importance of children knowing how to seek help and counseling when they feel insecure or uncomfortable. She said, "Information on the role of fire department, police, hospitals and other social service organizations would give confidence and courage in emergency situations." A few

respondents stressed that survival technique and strategies like edible jungle food, keeping away from wild animals and first aid techniques need to be acquired by children who frequently go on outdoor and camping activities. “Besides helping oneself, these skills would also enable children to extend help to others when the situation arise”, said the lecturer. There are lot of similarities noted between the findings of this study and the findings of similar studies in other countries. It seems, adults in the area of this study perceive physiological and safety information needs to be the primary information needs of children especially children aged ten to twelve. These two needs are in the lower rank of Maslow’s hierarchy of Needs. Walter’s (1994) study in Southern California also found the findings to be similar with the present study.

### **Education and Self-Esteem**

The third most frequently highlighted information need of children perceived by adults in the interviews were information related to children’s school curriculum and education. Ten of the fifteen respondents stressed the importance of educational related information to children. Information on how to deal with academic subjects, how to choose good books, how to identify the appropriate sources, how to gather information, reading habit, and Information Technology (IT) are seen as major information in this category, needed by children. The schoolteacher was concerned with the issue of learning among children. She said, “Children should be well informed and trained with various learning techniques which will ultimately transform them into ‘Independent Learners’.” Then she added, “This is one of the objectives of ‘Smart School’ concepts. Information on how to choose good books to read, importance of reading habit, seeking

the right source and help in relation to academic subjects, and consultation skills of various sources are vital information to children which would help them to become independent learners.

The primary school headmaster added that together with learning skills, self-esteem, and self-confidence of children especially children in the higher classes should be uplifted to make them great achievers. He said, "This can be achieved by frequently giving motivational talks to children, role modeling, story telling, giving autobiographical information on social and political leaders." He further added that for those children with low self-esteem, serious counseling should be given to improve their self-concept, self-esteem and self-confidence. Teachers and parents strongly felt that children's achievement in education could be improved if they are given lots of motivational information.

Eight of the fifteen respondents pointed out the importance of knowledge and skill on Information Technology to children. The headmaster explained, "Information technology will be used in teaching in all schools in Malaysia by the year 2010, through the Smart school concept. Children in primary and secondary schools will access information in their learning process. Before IT tools are introduced, it's important for children to acquire the IT knowledge and skill in advance. So, knowing IT is a must for all children in school today." A lecturer respondent also stressed the importance of IT. He said, "With the IT, children have access to all kinds of information not only from local, but also from around the world. This would help them develop further their

knowledge and awareness. This also means autonomous learning at the individual's own pace through IT can be achieved.

### **Love and Belonging**

The fourth category of information needs perceived by adults to be important to children aged between ten and twelve are information related to local community; specifically the multicultural awareness. The respondents participated in this study were from different races and cultures. Thus, many respondents stressed the need for children to be well informed on multicultural awareness, social sensitivity, and social understanding. The adults raised these points in multiple contexts. All the five respondents, who mentioned the importance of multicultural awareness, are in agreement that children should be enriched with this information from young age. The welfare officer stated, "Malaysia is a multicultural society; Malays, Chinese, and Indians form the majority population in Peninsular Malaysia. The composition is more visible in the West Coast region. Thus it is common to note people from the three races make up community in many region. Cooperation among the races is vital for the harmony in our country. In order to maintain harmony, people of different races need to understand the culture of the others especially the children. This is because very often children are involved in activities with other races. So, it is very important that children are given rich information on their own culture, culture of the other races and of other communities. By knowing culture and sensitivity of other community, children can easily get along in their increasingly diverse society." The social worker said, "Children especially those schooling, often mix with children of other races during school hours,

festivals, community events and in other special occasions. If they are not aware of culture of other races then there will be unbelievable prejudice and ignorance which in the end may lead to hatred and disharmony in the society.” He also stressed that children need to know social norms of the community or society where they live. He further pointed out that this is important for children to become part of the community and well accepted by others.

The lecturer stressed on sensitivity among children by saying that they should be furnished with information on what’s happening around them. He quoted, “information on outbreak of diseases like cholera, denggi, coxsackie viral disease, accidents in the festive seasons, children abduction, and other incidents that occur in the society should be provided to children, so that they are well aware of their surroundings. This will also help them take necessary precautions in avoiding unwanted incidents.” He further stressed that children should also be given the opportunity to give ideas on how to eradicate some of the social problems. According to him, this could make them even more aware on what’s happening around them thus make them realize that they are part of the community and role that they need to play in the community.

The social worker said’ “Information on local political leaders, their role, and their contribution to the country should be provided to children to help understand and realize the social, politics and economic setting in our country.” He believed that information could be understood by children aged ten and above. He pointed out that this can help children to become a good citizen of this country as they grow older.

## Values

In relation to being a good citizen, a few respondents expressed their concern on children acquiring good values, reasoning skills and knowing between good and bad. The lecturer for example mentioned that children of the information age are frequently exposed to television, video games, personal computer and other media, which give access to bulk of good and bad information. He said, "It is important that children are taught on how to differentiate between good and bad. One example that I do with my children is that when there is advertisement on fast food, I explain to my son what is good and what is bad about the food." He added that this kind of information is vital for children to think and make their decision. A few respondents pointed out the importance of religious knowledge to children. They believe that religious teaching will give children a sense of direction in their life and also help them lead a simple life. As one parent said, "Religious knowledge is important to children. Besides help developing good values, religious knowledge also help children develop their self discipline."

When data collected from the interviews were clustered into categories as seen in Table 5, it became evident that physiological needs and safety needs were perceived to be the critical information needs of children. Educational information needs were also given considerable importance to children. A reasonable number of respondents stressed the importance of cultural and societal information to children. A few respondents pointed out the importance of religious and good values-related information to children especially to children aged ten to twelve.

The table below shows the summary of category of information need mentioned by respondents in the interviews. The data were outlined based on priority with first at the top and last at the bottom.

Table 5: Summary of Information Needs of Children in Rank Order

Category (Rank order)	Sub components of information need mentioned by respondents
1. Physiological Needs	<p>Personal hygiene: self cleanliness, body , dress, oral hygiene, healthy food,</p> <p>Nutrition: eating healthy food from school canteen, eat fresh fruits, avoiding junk food</p> <p>General health: identifying spoilt food, drinking clean water</p> <p>AIDS, Juvenile diabetics, Asthma, heart defects, diet, medication</p> <p>Puberty: Changes in the body parts, menstruation</p>
2. Safety	<p>Personal safety: bullies, good and bad touches, child abduction, child abuse, and safety in the house.</p> <p>Sex education</p> <p>Local geographical information: location, route map, transport</p> <p>Contacts: home, parent's office, hand-phone numbers, emergency numbers</p> <p>Survival techniques</p> <p>Children's right as individuals</p>
3. Education	<p>Academic: dealing with school subjects, choosing good books, and learning techniques</p> <p>Reading habits</p> <p>Information Technology: computers, Internet</p> <p>Independent learning,</p> <p>Autonomous learning</p>
4. Love and belonging	<p>Multicultural awareness: sensitivity, culture of other races, social problems, and community</p> <p>Current issues: diseases, accidents, and other incidents</p> <p>Leaders: social and political leaders, role, contribution</p>
5. Self Esteem	<p>Own rights</p> <p>Motivation, self confidence</p> <p>Children's right</p> <p>Decent behaviors-manners</p>
6. Good values	<p>Religion</p> <p>Good values</p> <p>Ability to make decision based on values</p>



Besides showing some common features with Maslow’s hierarchy of needs the findings of this study also showed similarities with findings of similar studies in other countries. One good example is the study conducted by Virginia Walter (1994). As in Walters study, the findings of this study also showed that physiological and safety needs in the lower rank of Maslow’s hierarchy of needs were perceived as the primary information needs of children aged ten to twelve in Peninsular Malaysia. Other than Walter’s study there are many others have also mentioned various information needs of children as stated in the literature review. Abernethy (1984), Durrance (1989), and Metz (1996) for example have highlighted the importance of Information technology related information to children. Many respondents in the present study have also stressed the same aspect.

**Current Information Sources of Children**

Respondents identified many appropriate sources of information for children. Summary of the main information providers to children is given in the table below.

Table 6 : Current Information Source to Children

Main Source	Components
Parents	Mother, father, grandparents, other family members
Teacher	School teachers
Peers	Playmates
Mass media	Television, magazines, comic books
Computers	Educational programs
Community	Doctors, nurse, police
Public libraries	Printed materials

The respondents mentioned parents are the main information providers to children as most children’s time were spent with family. The Kindergarten teacher stressed that brothers, sisters, and grandparents in the family also play a major role in providing information to children. Besides family; peers, teachers, and adults also mentioned mass media as major information providers to children. The primary school teacher said, “Children of age ten to twelve usually have many friends both in school as well as around their home. These children do get exposed to many aspects through socialization with peers.

The data analysis showed mass media like television, magazines, comic books and computers as the third major information providing sources as perceived by the adults. One of the parents stated, "Children aged ten to twelve spent more time with these sources other than parents and peers. The provision of computers and Internet have made children to access a disproportionate amount of information." She also stressed that most information from mass media reach children effectively as mass media have attractive way of presenting information. The social worker said, "Children aged ten and above are easily attracted to advertisements in mass media. This is the reason why these children easily get attracted to fighting, gangs, smoking, and other habits which is portrayed as macho in mass media especially in the television programs.

Teachers were also perceived to play major role in providing information to children. This is not surprising as most children aged ten to twelve go to school and spend five to six hours in school. All those mentioned teachers are in agreement that teachers provide lot of educational related information to children, especially curriculum related information. A few respondents pointed out that community members like doctors, police, welfare officers, community leaders, and organizations too provide information to children through formal and social activities. Three respondents mentioned that school and public libraries are the other sources where children fulfill their information need today. However, they stressed that the use of these sources is limited to a small portion of the total population of children in the country.

The available information sources to children that were stated by respondents have also been mentioned as vital sources in many studies as mentioned in the literature. Anuar (1979) the Director of National Library of Singapore at that time, for example, has explained in her writing that family is the prime source information to children. She further explained that later the source extends to peers, teachers and other.

### **How Far the Sources Available Met the Information Needs of Children?**

Even though respondents identified many sources that provide information to children, all of them stated strongly that children in general are getting very little information that they are supposed to get. Twelve respondents are in agreement that information providers in our country do not play their role well. According to them information provided to children are insufficient and the delivery method is ineffective in general. However, most respondents believe that children whose parents spend lots of time with them are better informed than those whose parents are away most of the time. This point was stressed by the primary school teacher who said, "Parent who spend time with their child tend to produce better informed child than those parent who are busy chasing the five 'C's; that is cash, career, car, credit card and condominium." The information officer said, "Educated parents in general are able to fulfill most of the children's need including the information needs. This is because they have strong knowledge and skill on parenting." A Kindergarten teacher pointed out that many parents who spend very little time with children tend to provide pieces of information, which cannot be turned into a applicable knowledge.

Several respondents mentioned that mass media too do not meet most information needs of children. A male parent, for example, pointed out those newspapers, and television give wrong picture on much information related to children. He said that advertisement on snacks, fast food, crime and other wrong behaviors are given good picture and it's all right to do those things. The primary school teacher said, "Important information like drug addiction, child abuse and AIDS are shown seasonally in news papers and television. When information is made available seasonally, it is only made known to limited people. Moreover less than five percent read newspapers in Malaysia." "As a result of this children don't get a consistent flow of information that they need." She said. According to the information officer, "A disproportionate amount of information are delivered to children from television." He stressed that there is much misinformation, which influence children easily. A lecturer mentioned that many children related information is non-real and makes children live in fantasy. "Some of those information give false hope to children" he said.

A few respondents felt strongly that information provided in schools by the teachers especially is too academic. Respondents seems to believe that too much emphasis is given to exams and critical information like living skills, emergency procedures, and reading habits are not given enough stress in schools. The lecturer stated, "Children from year one in school are not given enough information on how to be an independent learner. In contrast children are often spoon fed." "Children aged ten to twelve who are in year four, five and six are burdened with exercise drills, and extra classes in order for those children to do well in the exams" he added. He also said that

these children fail to work on their own, and do not use thinking skills in problem solving and decision making when they move to higher levels. A number of respondents blame our educational system for the above problem. Many respondents pointed out that other than teachers and school, peers were also not effective in providing all the necessary information to children.

The interviews with adults showed those, sources available to children were not effective in providing all the information needed by children. There are many reasons mentioned for the ineffectiveness. The findings also showed that the status of our children here is no different from those children in Southern California in the Walter study (1994). In that study Walter found that many information providers in Southern California do not fulfill all the necessary information needs of children. However, the variation in the degree of unmet information between this two studies cannot be established, as there were no data collected on this.

### **Unmet Information Needs of Children**

Along with inadequate information to children, all respondents agreed that just like others, children aged ten to twelve too fail in acquiring much information that they need. All respondents stressed the point without any doubt. The main unmet information of children as perceived by adults is given in the table below.

Table 7 : Unmet Information Needs of Children as Perceived by Adults

Main Aspects	Unmet Information
Sex education	Puberty, menstruation, pregnancies, Sexual abuse, Sexually transmitted diseases, physical change AIDS
Safety and security	Child abuse, children’s right as an individual Counseling and seeking help Emergency procedures
Living skills and emergency procedures	First aid, fire fighting
Love and belongings	Communication skills, language, culture, and religion of others
Information technology	Handling computers

The primary school teacher said, “Many children never get enough information on sex education. Children aged ten to twelve, especially girls need to know enough about sex before they reach puberty. Besides understanding the physical changes that will take at puberty, knowing about sex will also help them preventing sexual abuse, sexually transmitted diseases including AIDS, and pregnancies. But it’s unfortunate that those information doesn’t reach children fully.” She pointed out that the reason for not reaching children is that information on sex is considered sensitive, improper and difficult for many parents to talk about with their children.

A parent also stressed the same idea by saying, “Puberty begins in some at the age of ten and in others later. There are cases where children get panic at the occurrence of menstruation for the first time. This frequently occurs to children whose parent especially are uneducated.” The school nurse said, “There are children at the age of ten and twelve think that babies come out of belly button”. She said that the number of cases not knowing some basic information on sex is alarming. She also stressed that both our male and female children in primary school certainly are not furnished with enough information on sex. She believes strongly that our children especially children of age ten to twelve are indeed poorly informed on this aspect.

There is a number of critical information on safety and security identified as unmet information to children. The police officer noted, “Child abuse cases are in the increase. Many victims do not know how to go about reporting to overcome this problem. The victims do not know, what is child abuse, what is child’s right as an individual, what should be done when a child is abused, whom to consult, and how to seek help.” He stressed that those are vital information, if given to children many of the incidents related to child abuse can be avoided. The welfare officer stressed that our children need lot more information on sex and sexual abuse in order to look after their safety especially the girls who reached puberty. The lecturer mentioned that safety and security related information like living skills and emergency procedures, that are applicable in their daily life, are not taught effectively to children. Some basic information on first aid and information on fire fighting were mentioned as example by



the lecturer. He believes that with that knowledge, besides helping their own self, children can also help others when situation arises.

The third commonly mentioned unmet information needs of children revolved around information related to society and culture. This information can be grouped under 'Love and Belonging' in Maslow's hierarchy of needs model. The primary school teacher pointed out, "Many children still lack information on how to mix around, getting along with children of opposite sex, different language background, religious background and behavior." The teacher also pointed out that information on how to be part of the group and yet maintain one's identity is not provided adequately. The welfare officer said, "Children lack information on culture of different races. Malaysia is a country comprising of multiracial society. Understanding the culture of other races is vital in maintaining the harmony, and understanding among the people. The awareness has to be inculcated among children from small." However he said, "Concerned parties are not serious in providing those information. Children still miss out some fine details of culture and language of other races." One good example quoted by the officer is the information on religion and festival details of their friends.

Four respondents mentioned that information and exposure of information technology to children is far from satisfactory, even though various parties, including the government, have stressed the importance of this information to people of all age including children. The teacher admitted, "The Smart School concept is one of the flagship in 'Multimedia Super Corridor' which is given great concern by Ministry of

Education but children especially in rural schools are not getting enough information on this aspect.” She further stressed that if that situation continues rural school children will fail in what is expected of them.

The analysis clearly showed that there are significant unmet information needs of children. The most commonly mentioned unmet information was those related to sex education, child’s safety and cultural awareness. Information technology in education is another important information that is lacking in children. Again the findings of this study seems to show lots of similarities with findings of other similar studies. One example is the study by Walter (1994). However, one aspect which differs from other studies is the information on information technology. In Peninsular Malaysia, information technology is seen as one of the vital information, needed by the children. This is not surprising as the whole country is now encouraged to know about information technology.

**Reasons for Children not getting the Information They Need**

The respondents highlighted many points as to why children were not getting the information that they perceived to be vital for their development. Reasons stated by respondents are summarized in the table below.

Table 8 : Barriers in Meeting Information Needs of Children as Perceived by Adults

Main aspects	Barriers
Parents	Social economic status, Level of education Time spent with children Support from others in the family
Communication	Information delivery method Authoritarian Level of information processing in children
Children themselves	Level of inquiry skills Reading habit Information seeking behavior
Educational system and practices	Emphasis on paper chase Spoon feeding Absent of Information skill as a subject
Mass media ( especially Electronic media)	Less children's program Quality of programs
Information technology (CD's and Internet)	Lack of knowledge Lack of skill

Among many reasons, status of the parents was mentioned as the main component responsible for children not meeting all their information need. The college lecturer said, “Parents who are not educated and who do possess parenting skills doesn’t know the importance of providing information to children.” “Parents who spend little or no time with their children are also unable to fulfill information need of children.” he added. According to him a child even at the age of ten to twelve spend most of his or hers time in the family. As such family members, especially parent should be entrusted

with the responsibility of fulfilling child's needs including information needs. He added further that when the important link is missing then the child would also miss developmental needs. A few adults mentioned, "There are adults in the family who deliberately avoid answering question by children." One example quoted by one of the respondents was about smoking. A parent pointed out that social-economic status and education levels of the parent have great impact on child upbringing, which include fulfilling information needs of children.

The other reasons for children not getting enough information as mentioned by respondents were the ineffectiveness of information providers. The primary school teacher pointed out that adult's communication styles were ineffective in getting messages across. She said, "Adults sometimes, including teachers are unable to establish rapport with children. Children are very sensitive, sometimes when we tend to be too authoritarian, and that turns them off." The lecturer said that the gap between the adults and children doesn't allow children to discuss sensitive matters freely. He quoted sex education as one example which adults normally avoid talking to children. He said, "It's considered a taboo discussing matters related to sex with children in our culture even though we know that some of the basic information can be explained in a manner suitable for children." He strongly felt that adults lack the communication skill in delivering information to children.

In relation to this, the social worker pointed out that some information which is considered dry like information about values, ethics, and religion got to be made

exciting and should be related to real life situations. Another interesting point put forward by the college lecturer is that, adult lack the knowledge on information processing method that takes place in the child's mind. He said that adults take thing for granted that message delivered their way would reach children easily without taking into consideration the information processing capability of the receiver. He further stressed that in children, it should be delivered in a very simplified form according to their mental ability.

A mother said, "In our culture children should receive information and do not ask too many questions. For the fact that our children do not develop their thinking skills and are always in fear of being ridiculed." She further stated, "The other principles and values that say adults are always right and children should listen and obey adults, have made our children withdrawn and shy about asking questions." The lecturer pointed out that our teaching methods especially in the past were mostly teacher centered and that in a way have suppressed questioning instinct in children to a certain extent." Many respondents admitted that adult's status and belief which is built upon by the culture, society, economy, and politics of our country had an impact on our children's development including their information.

A number of respondents seem to be convinced that children themselves are also to be blamed for not getting information that they need. The lecturer mentioned that large portion of children in our country lack reading habit. He stressed that lack of reading habit has affected the information-seeking behavior among children. He

clarified, "When a child love to read, he or she has the access to many sources and variety of information." However, he pointed out that other parties are to be blamed for not inculcating the reading habit among children.

Four respondents blamed our educational system for not meeting children's information needs. The primary school teacher pointed out that our educational system stress too much on 'Paper Chase'. He added, "There is too much spoon feeding of information to children. Children, especially those in year five and six were burdened with too many tuition and extra classes." According to him the paper chase has made our educational practices to focus more on examination rather than behavioral change. The head master admitted that our children are not trained to be independent learners. They lack creativity and ingenuity." The college lecturer pointed out that our educational curriculum is not flexible; it doesn't fulfill their needs and are too rigid. He said, "Even though the curriculum have allocated room for information seeking skill, children are not exposed well on how to look up dictionaries, encyclopedias, catalogs in libraries and electronic sources for information." A few other respondents blamed teachers and school for not helping children in developing information-seeking skills.

Many respondents also mentioned about the ineffective role, played by mass media, libraries and social institutions in providing information to children. Besides that lack of knowledge on information technology was also mentioned by few respondents as the other factor which contributes to this problem. The Information officer said, "The mass media is not utilized to the fullest extent for the benefit of children. Too few

documentaries and educational programs suitable for children are shown in television.” He added, “Even though many foreign programs like National Geographic, Sesame Street and news are shown for children, they still lack some critical information on local culture of different races, survival techniques, health, and safety related information.” However, he said, “There are more local children magazines and books even though the number and quality need to be improved.”

A parent stressed that the lack of knowledge on information technology among children is one of the reasons for their unmet information needs. He said, “As we know information on any subject is available in Compact Discs (CD) . Free information is also available in Internet.” He also stressed that our government has taken a major step in setting up the infrastructure to make this facility available in schools and outside. But he said, “Unfortunately our children especially in rural areas have not gain the knowledge and skill to surf Internet or to use CD-ROMs.” Other than these factors respondents also mentioned about the ineffective role played by social institution like police, fire fighter department, hospitals and other voluntary organizations in disseminating relevant information to children.

On the whole, respondents placed the ineffective role, played by the various parties as the primary factor, which leads to unmet information needs of children in this region. Ignorance on children’s information needs, wrong prioritization of programs for children, and lack of sources are some of the other factors mentioned by respondents as barriers in meeting information needs of children.

**Suggestion on ways to improve the Quality and Quantity of Information to Children**

On the question, “What should be done to improve the quality and quantity of information that these children receive currently” respondents suggested a long list of actions that need to be taken by all parties involved in the issue of information provision to children. The suggestions made by respondents are summarized in the table below.

**Table 9 : Ways to Improve the Quantity and Quality of Information the Children Receive as Perceived by Adults**

Components	Suggestions
Parents	Family orientation, parenting, reading habit, Acquire basic knowledge on child psychology, child development, communication Workshops Establishment of parent clubs, discussion groups, societies and organizations, Attending talks by professionals
Children	Inculcation of reading habit, questioning habits, and information seeking behavior
Teachers	Teaching of information skills Parenting classes and workshops to parents
School curriculum	Inclusion of information skill as a single subject Infusion of thinking skills



Majority of respondents emphasized the need for parents to change and play a more effective role as the primary information providers to children. The lecturer pointed out the importance of family orientation especially to parents. He stressed that parents should be well equipped with information and skills related to children, first before they could play a major role in providing necessary information to children. Eight respondents also felt that parents should be well trained in many aspects related to children. Among other information and skills needed by parents as mentioned by respondents were;

- (i) Basic child psychology
- (ii) Child development
- (iii) Parenting
- (iv) Children's health
- (v) Children's nutrition
- (vi) Child safety

Respondents also made many suggestions as to how parents could be trained to acquire the above. Suggestions put forward by the respondents among others were;

- (i) Parenting workshops conducted frequently by professionals like doctors, nurses, and teachers.
- (ii) Programs to encourage parents to acquire reading habits.

- (iii) Establishment of parental clubs, discussion groups, society, organizations, and counseling committees at local, district, state, and national levels.

One of the parents mentioned, "Many parents in Malaysia do not have formal training and knowledge on parenting especially parents in the lower income group. Help from others is very much needed by this group in particular." The primary school teacher pointed out that information providers should learn the communication skills needed in delivering information to children. She said, "Information given to children should match the mental and physical age of the child concerned. One way is to use proper communication style."

The school nurse stressed the need for parents to inculcate the reading habits in children of all ages. She also pointed out that by instilling reading habit, children can be easily trained to become good information seekers. The primary school headmaster said, "Parents should foster a feeling of mutual trust between children and them. Children should be made to realize that it's all right if they do not know and it is good to inquire." He added further that children should also be trained to use dictionaries, encyclopedias, library catalog, and Internet where the parents, peers and others are uncertain in fulfilling their information need. The social worker said, "Parents should spent more time with their children with quality activities and cut down children's television watching time."

A number of respondents felt strongly that schoolteachers could play a major role in enriching children with lots of information and knowledge. They stressed that teachers should have programs and activities outside their formal curriculum to instill habit and skills that will fulfill their information need. One of the parents said, "Children aged ten and above are given too much academic emphasis by teachers as well as parents to get them prepared for test and examinations. Very little is done on information skills like referencing, looking up books, notes taking, and journal writing." Respondents pointed out that schools could develop those skills through special programs and school library activities. Besides school children, a number of respondents highlighted the role of teachers in helping parents to develop their parenting skills.

The lecturer pointed out the need for change in both primary and secondary school curriculum to suit the changes taking place in social and economic settings in our country. "One change that is taking place in our education system is the ministry's emphasis on information technology, learning through constructivism, thinking skills among students including children, creativity in learning, independent learning, and autonomous learning" said the lecturer. He added that the concepts mentioned above showed the need for students to acquire information skill and knowledge on various aspects before they could acquire the above mentioned concepts. He further explained that currently students, especially in primary schools lack those skills even though those skills have been infused in the curriculum. Due to that he stressed the need for curriculum change to include new skills like information and information technology

skills as a subject. In relation to this, the primary school teacher said, "Information, and information technology skills should also be taught to teacher trainees in teachers training colleges before they qualify as teachers. This is important because those teachers will be the pioneer teachers to fulfill the need of 'Smart School', that will be implemented by the year 2010."

Other respondents talked about the role of other institutions on dissemination of information to children. The police officer said, "Clubs, religious institutions, social organizations, and village organizations could disseminate useful information through social and religious activities." The primary school teacher said, "Mass media especially Television and Radio Malaysia should have more programs for children and parents. Other than programs like 'Along' television and radio should also have programs related to issues like child abuse, child diseases, emergency procedures, outdoors for children, and children games" she added. A few respondents said that information disseminated through mass media especially television seemed to reach children easily and effectively when compared to other media.

A few respondents proposed that parents and teachers should make tours and visits a frequent activity for children, especially in primary schools. They suggested, visits and tours to information centers, zoos, hospitals, exhibitions, fairs, parks, competitions, and shopping complexes could help children learn more about the world they live in. However visits and tours will benefit children more if they are organized well with clear objectives. A mother said, "My son (aged eleven) do not know how to

withdraw money from bank and post office. I think parents should expose their children on how to consult banks, post office and other financial institutions to give early exposure to financial and other institutions.

Two respondents mentioned the role of public libraries in fulfilling information needs of children. The school teacher said, "Libraries in our country could play a major role other than parents and teachers in providing information to children if they are serious in their service." She expressed her disappointment by saying, "Our libraries are not doing enough for our children. They should be more aggressive in conducting programs especially for children to make them use the libraries more often. They can conduct many interesting activities like reading programs, competitions for children and workshops for parents. With this libraries can also contribute in instilling reading habit among parents as well as children." She added that libraries in our country should do more than collecting and looking after piles of books like what has been done in developed countries."

Besides those major suggestions a number of respondents stressed the need for government's direct intervention on this issue. The social worker said, "Our government also should provide enough funds for the establishment of more libraries, especially in rural areas so that poor children are not left out in education."

Respondents on the whole are unhappy with the role played by various parties in fulfilling information needs of children. They generally felt that, very little was done by

parties who were entrusted with the responsibility to fulfill children's need including their information needs. Respondents suggested multiple strategies and ways to improve the quantity and quality of information that our children receive currently. Respondents who are well read and have traveled a lot felt that drastic measures need to be taken to improve the present status of information provision to our children. Much focus was given on parents' and teachers' role in fulfilling information needs of children. Respondents felt that the issue of information needs of children would be solved if only parents and teachers were well informed and possessed the skill in dealing with children and their needs. The responses also seem to show that respondents strongly believe that our children are information poor.

When the finding in this study compared with similar studies in other countries, similarities are observed in the way respondents in both countries reacted. Walter's study (1994) for example also showed that respondents felt that a lot has to be done to improve information provision to children in Southern California. They also felt that children in Southern California region too are information poor. However, the seriousness of level of unmet information between the two regions is not known. Besides the study by Walter, findings of many other studies have also supported the findings of the present study. Many professionals especially librarians have highlighted the importance of various information to children for the development and management of the challenges that they face. Cummins (1997) and Smith (1997) talked about many critical information needs of children. Mathews (1990) talked about how school and public libraries can fulfill the needs of children. Anuar (1979) talked about children's

information services in South East Asia. The result of the present study showed that there are some serious implications for policy and practice to be addressed.