IMPACT OF BARNEY AND FRIENDS PROGRAMME ON COGNITIVE DEVELOPMENT AMONG EARLY CHILDHOOD

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ABSTRACT

Television is a world full of images. Various programmes are designed specifically for children whether it is educational programme or not, and these programmes are keeping pace with the development around the world. Children at early childhood phase are normally interested in television programme that give them entertainment and joyful. Educational pogrammes like Barney and Friends, is an example of the fovourite television programme amongst the children of this age group. The purpose of the study was to examine the impact of Barney and Friends programme on cognitive development among children at early childhood. A total of 40 children aged between 24 months and 42 months were selected from several kindergartens around Indah Permai residential area, Kota Kinabalu, Sabah. This research employed experimental design within and between subjects with pre and posttest group design. In this study, the children were allowed to watch two series of Barney and friends programme. Data were measured using the Bayley Scales of Infants Development (BSID-II). Results showed that the Barney and Friends programme had a significant impact on the cognitive development of children at early childhood.

KEYWORDS**:** *aeducational television programme, cognitive development, early childhood*

1.0 INTRODUCTION

Why do children watch television? According to Schramm *et.al.*, (1961), the first reason is the existence of passive enjoyment which entertains the children themselves. Secondly, the increase of knowledge from the television without the need to search for it and thirdly, the function of television itself as a social purpose in accordance with knowledge which has been available on television that can serve as a topic for communication and the reason for being around people. According to Hardenbergh (2009), nowadays people are keen to watch television because of television itself which creates images that attract attention and because of audio effects which stimulate the eyes to keep watching. Meanwhile there is an increase in channels through transmission devices such as cable and satellite and also transfer from analog to digital transmission.

According to Piaget (1952), children under two in sensory stage level point out that senses and action show to children that objects and images on television feel different from those experienced in real life, Lemish (2007). During this stage also, the children in early childhood are acquiring language and they will develop representational thinking skills which means allowing the children to talk about and express their experiences of television.

Television is a world full of images. Various programmes are designed specifically for children whether it is educational pogramme or not and this programme were keeping pace with world developments. Early childhood are interested in television programme that give them entertainment and joyful. Educational pogrammes like *Sesame Street*, *Barney and Friends*, *Teletubies, Blue Clues,* and others are one of the examples that children among early childhood like to watch. However, non-educational television programme also aired on tv as a programme that can entertain children like cartoons. According to Woodard and Gridina (2000), Barney and Friends was on number five on top ten last co-viewed shows and also on most encouraged programme and channels by parents.

1.1 Research Problems

Children come into the world knowing nothing, and actively construct knowledge through manipulating and exploring their world. Today, as we can see, television plays an important role in early children's lives and socialization. Television is the national hearth. In some homes it is a steady backdrop from morning till night. Many families arrange their schedules, their meals, their conversation, and even their furniture

around the television set. Children will learn and explore the world through television. Television can also be considered as taking over the care of the early child. This is because according to Singer and Singer (2001), in early childhood, children spend more than three hours per day watching television.

Hundreds of studies have shown that violent television programmes contribute to aggressive behavior and negative impact among viewers. Not all television programmes are the same and they do not all produce the same impact among viewers. Same as educational programmes and non-educational programme that children watch will have a different impact on children among early childhood. But if we believe that children can learn negative lessons from television, then it stands to reason that they can learn positive lessons, too. From the above findings, it is important that children should watch programmes which stimulate their overall development since they are spending long hours in front of television. So it is necessary to ascertain that programmers especially of educational television programmes include elements which facilitate their development in cognitive, social and academic improvement.

Studies have reported that educational television programmes are improving the cognitive development of children. Development is changing qualitatively which is the change that cannot be measured in quantity but shows different character from the previous stages (Mohd Sharani Ahmad, 2004). The process of children's cognitive development is more closely related to surrounding factors. For normal children, their speaking skill is closely related to their hearing (Wan Asma Wan Ismail, 2002). Children are attracted to sounds. Many children will be attracted to watch Barney and Friends when they hear the songs and music in the programme.

Therefore, in this aspect when children are exposed to a variety of television programmes, especially like Barney and Friends programme, it will most probably influence the growth of their cognitive. However, this is yet to be proven. Furthermore, there is still not much information pertaining to the topic discussed. Realizing the concerns over television's potential contribution to a broad range of positive or negative impact on children's early childhood, a study is needed to answer several related research problems, namely:

(i) Does watching Barney and Friends programme have significant impact between two groups at pre assessment on cognitive development among early childhood?

(ii) Does watching Barney and Friends programme have significant impact between two groups at post assessment on cognitive development among early childhood?

1.2 Research Objectives

The purpose of this research is to examine the impact of Barney and Friends programme on cognitive development among early childhood. Therefore the general objectives are:

(i) To examine the impact of Barney and Friends programme between two groups at pre assessment on cognitive development among early childhood.

(ii) To examine the impact of Barney and Friends programme between two groups at post assessment on cognitive development among early childhood.

1.3 Significance of The Study

Nowadays, media is one of the most influential sources in human life. It has grown fast with the rapidly developing countries such as Malaysia. In the United States, 99 percent of residents have at least one television in their homes. Children spend at least twice as much time watching television as doing homework (Rich, 1999). Children from age two to 18 years old spend more time in front of the television watching their favorite programmes. An average of three hours per day watching television, a few hours listening to music recorder, almost an hour playing computer game, 39 minutes listening to the radio and only 44 minutes to read (Singer and Singer, 2001).

Children who grow up in the modern world today are directly exposed to the media. Modern world has caused the standard of family life also to become more advanced, and nowadays in large cities, half of the children have television sets in their bedrooms. In other words, bedrooms will be the media center for children (Dacey and Travers, 2006). Because a lot of time is spent by children in front of the television and using electronic media as one of the learning materials, it is important to study the impact of Barney and Friends programme on cognitive development of children among early childhood.

Cognitive of the children are very important aspects in the child's development. Whether watching educational television programme has any impact on cognitive development of the children is very important, considering the fact that children are spending long hours in front of the television. The result could give insights into the understanding

of how influential Barney and friends programmes or non-educational programme in their cognitive development.The results can give new knowledge in the educational child development field. Teachers can select best educational programmes and implement them in their teaching curriculum in a better way.

Apart from that, identifying the impact of Barney and Friends programme on cognitive development of children in early childhood can help the researchers, parents and teachers or caretakers in kindergarten to select implement them in a more meaningful way. Moreover, this study hopefully can represent the finding as an educational phase for researchers in the field of education and development of children, organizations, teachers, caregivers, parents, or others individuals who wish to study further on educational television and cognitive development among children in early childhood.

1.4 Piaget's Cognitive Theory

Piaget's view is that all humans are born with a positive tendency to interact and interpret the environment around them (Kamarulzaman Kamaruddin, 2009). Based on Piaget's Theory, there are four stages that are included in cognitive development.

Cognitive theory of Piaget (1954) is divided into four stages. The first stage is the stage of sensory motor (0 to 2 years old), the second is the pre-operational stage (2 to 7 years old), the third stage is the concrete operational (7 to 12 years old) and the fourth is the stage of formal operational (12, onwards or the adolescent).

The first stage is known as sensory motor stage (0 to 2 years old). Children use a lot of senses such as attention, auditory and motor activities to explore their environment. Children begin to respond to the surroundings. This occurs when the child starts to cry if he or she does not see his or her mother. But at the end of the second year, child begins to understand the resolution of the object which is the object and human will not disappear. This stage also indicates that children are learning how to speak.

As children move from the sensorimotor to the preoperational stage, which spans ages two to seven years, the most obvious change is an extraordinary increase in mental representation. The second stage is pre-operational (2 to 7 years old), when the children begin to be able to use symbols (picture or word) and also have the ability to use languages. During this stage these children use more on perception

than logic. Their behavior is egocentric which is viewing their environment according to their ways. During this stage the child begins to have skills in using mind's images. Children also begin to focus on one dimensional perception in conversation, the entry to the class or school, time series and also various ways of problem solving.

Children in this stage will have extraordinary increase in mental representation among early childhood between ages two and seven years, this capacity is blossoms. Piaget's mentions that in this preoperational stage, children are advance in mental representation and it includes language and thought make believe play, drawing and using symbols in real world relations (Berk, 2003). The details in this stage explain more because the researcher focuses on this stage in this study. Children are active and motivated learners. Piaget states that children's minds are formed through a process of assimilation and accommodation. Through their action, they construct schemas. These schemas affect how we make sense of the world and learn new things. Meanwhile the term accommodation refers to part of the adaptation process. The process of accommodation involves altering one's existing schemas, or ideas, as a result of new information or new experiences. New schemas may also be developed during this process. For example, a young child may have an existing schema for dogs. Dogs have four legs, so the child may automatically believe that all animals with four legs are dogs. When the child learns that cats also have four legs, she will undergo a process of accommodation in which her existing schema for dogs will change and she will also develop a new schema for cats. Piaget also mentions that the first schemas for child are motor action pattern, Berk (2009). When children among early childhood watch Barney and Friends programme, automatically they will dance, jump and do some motor movement. They tirelessly repeat actions that lead to interesting effects. Based on the Barney and Friends programme neither, the children will form a new schema. Lots of new schemas were shown by Barney and friends such as animals, colors and shapes through reading story books.

Berk (2003), mentions that language and thought are the most flexible means of mental representation in this stage. She stresses that in this theory, Piaget believed that sensory motor activity leads to internal images of experience which children then label with words. For example children in early childhood might raise the arms to indicate big or flap them to refer to a butterfly.

Make believe is another excellent example of the development of representation in early childhood. In this preoperational stage, Piaget

believed that through pretending, young children practice and strengthens newly acquired representational schemes. For example, children at age two, pretend with less realistic toys such as a block for a telephone receiver. At first, make believe is directed toward the self-such as they pretend only to feed themselves then they direct pretend actions towards other people or objects, pouring tea for a parent or feeding a doll. At three years, the children will be able to assign make believe intention to objects such as making a doll feed itself or parent doll feed a baby doll. Make believe becomes less self-centered as children realize that agents and recipients of pretend actions can be independent of them. By age four or five years, children among early childhood will build on one another's play ideas, and create also coordinate several roles and have a sophisticated understanding of story lines (Berk, 2009). As we can see here, in Barney and Friends programme, Barney and his friends always play a make believe play with the children. In Now I Know My ABS's CD and Lets Play School CD, lot of pretending drama is shown by Barney to develop the imagination of children about something. In Lets Play School CD, Barney and friends pretending play at school and they have fun to play and learn ABC, colors and more.

1.5 Research Hypothesis

Ho1: There will be no significant differences impact of watching Barney and Friends programme between two group at pre assessment on cognitive development among early childhood.

Ho2: There will be no significant differences impact of watching Barney and Friends programme between two group at post assessment on cognitive development among early childhood.

2.0 LITERATURE REVIEW

Many educational television programmes were developed and telecasted for children in early childhood. Cognitive development in terms of vocabulary, creativity, learning, academic performance, reading skill, and memory are shown positively when children watch educational television programmes such as Barney and Friends and others like Sesame Street, Dora the Explorer, Mr. Rogers Neighborhood, Blue's Clues and many more. This section will focus on previous studies regarding cognitive development of the children in early childhood and educational television programmes.

Educational television programmes are found to be effective in improving vocabulary of children especially three to five years old. Rice,

Huston, Truglio and Wright (1990) found positive relation between vocabulary developments while viewing Sesame Street among children. The study involved 326 children and their parents from Kansas. When children watched Sesame Street, they learned new vocabulary through the simple dialogue based on characters that appear.

Singer and Singer (1995) have conducted a research on the impact of educational television programme (Barney and Friends) on the cognitive development of children in early childhood. They found that the Barney and Friends' programme immensely useful for the children. They were able to name objects, identify letters and numbers, and identify pictures of animals, shapes, colors and body parts. The researchers also stated that the reinforcement, stimulation and encouragement from adults were also necessary to improve children's social and behavioral development. They also found good verbal development and increased vocabulary among children.

Fisch (2000) found that educational television programme leads to cognitive development in children. In this study, 399 children and their parents aged four to seven months from lower socioeconomic status participated. Baydar, Kağitçibaşi, Kŭntay and Gökşen (2008) examined the effect of an educational television programme on preschool. They report that when children at preschool watch educational television programme named "*Will U Play with Me*?" for 13 weeks, remarkable improvement in cognitive development was noticed as long as they watched it regularly and it depended on how long they were exposed to that programme. The longer they were exposed to this programme the higher they could expand their cognitive skill such as vocabulary and arithmetic readiness.

Crunco and Pezdek (1984) conducted a study on impact of educational television programme on preschool children and they found that these children have better cognitive development, especially in the area of creativity. Children started telling what they watched based on their imagination which resulted in increased creativity.

In another study on the impact of educational television programme on cognitive development of children in early childhood in classroom, Michel, Roebers and Schneider (2007) found improvement in the memory of the children. A total of 173 girls and boys aged eight and 10 years were involved in this study. Findings from this study showed that when children watched educational film, they tried to relate the knowledge gained from educational television programme with lessons learned in the classroom which led to improvement in memory.

Uchikoshi (2006) studied the impact of educational television on cognitive development of children in bilingual kindergartens. A total of 150 children involving 70 girls and 80 boys in the USA showed that when children watch "*Between the Lion*", one of the television programmes in USA, improvements was noticed in their phonological awareness and letter word identification knowledge.

Daniel Anderson studied a group of 570 teenagers who used to watch educational television programme of Sesame Street's in their early childhood. In the study, he found that teens who were exposed to children's education programme such as *Sesame Street* received high marks in Mathematics, English and Science compared to other teenagers who were not exposed to watch educational programmes in early childhood (Collins *et.al.*, 1997 in the Huston and Wright, 1998).

In order to find out how exposure to educational television programme in early childhood can help in their academic performance and achievement in high school, Huston *et.al.*, (2001) did a follow up study in the early 1990s and recontacted the 570 teenagers aged around 15 to 19 years old who had participated in one of the past project 10 to 14 years ago when they were aged five. In this study, Huston *et.al.*, (2001) used the same tools to collect the data such as the Peabody Picture Vocabulary test (PPVT) and family diaries of all television used in the household. Results showed the positive relationship of educational television programme such as Sesame Street with improved grades in English, Math and Science among teenagers who watched it in early childhood.

3.0 METHODOLOGY

This research was experimental design within and between subject with pre and posttest group design. The subjects were measured on cognitive development. Both pre and post assessments were carried out on cognitive development of the subjects.

Pre-assessment was carried out with the Bayley Scales of Infant Development (BSID-II) (Bayley, 1993) for both experimental and control groups. This pre-assessment, (BSID-II) was used to measure the development in mental domains of children among early childhood. After pre-assessment, the children in the experimental group were exposed to educational television programmes daily in one hour sessions for 30 days.

Children in the control group were not exposed to educational television programme but were exposed to non-educational television programme such as Ultraman and Power Rangers. Both groups were undergoing regular teaching programme conducted by teachers in kindergarten. After 30 days, post-assessment was carried out by using same tools used for pre-assessment such as Bayley Scales of Infant Development (BSID-II) (Bayley, 1993).

3.1 Sample

A total of 40 children within the age of 24 months (2 years) and maximum age of 42 months (3 years and 6 month) attending kindergarten, and of both sexes (18 boys and 22 girls) were chosen as a research subjects in this study.

3.2 Research Location

The kindergartens involved were Al-Hadhanah Kindergarten, Permai Ria Kindergarten, Ummi Kindergarten and Intan Gemilang Kindergarten, all of kindergarten is around Kota Kinabalu, Sabah, Malaysia.

3.3 Research Instruments

BSID-II, is an individually administrated tool to assess the current developmental functioning of infants and children. Bayley Scales of Infant Development (Bayley, 1993) was used in this study to measure cognitive development of children among early childhood.

To identify the cognitive development of children, researcher administered mental sub-scales of Bayley Scales of Infant Development (BSID-II). The mental assess was of the child's current level of cognitive functions in terms of language, personal, social fine and gross motor development. In this study, researcher used the items from age of 24 months to 42 months. Scores were recorded on the data sheet. The BSID-II is known to have high reliability and validity. The reliability at the 24 month age level (.92) and the 42 month age (.90). The reliability coefficients obtained are consistent with those obtained in the BSID and suggest that the BSID-II is a highly reliable instrument. Below are the descriptions of the subscales of BSID-II.

Mental Scale

Mental scale was used to measure the cognitive development of the children. The concept of this scale is to focus in terms of cognitive, language and social or personal on early childhood development as

well as the refraction of visual, auditory, memory capacity and problem solving skills.

Two CD series of Barney and Friends were used in the present study. The series of the episode is *Now I Know My ABC*, and *Let's Play School*. The episode *Now I Know My ABC,* it takes about 39 minutes viewing time. For *Let's Play School episode*, the total time is 48 minutes and 28 seconds.

3.4 Research Procedure

Informed consent was obtained from parents and the owner of the kindergarten before conducting the study. After getting the permission to do the research, pre-assessment was carried out with Bayley Scales of Infants Development (BSID –II) (Bayley, 1993).

Children were systematic randomly selected into two groups: group E and group C. During pre-assessment, all the children were assessed with BSID II. After finishing with BSID II assessment, researchers started to show the children in group E Barney and Friends programme CD 1 (*Let's Play School*) for 15 days (one hour per day) and after that it continued with CD 2 (*Now I know My ABC's*) for another 15 days (one hour per day). Meanwhile for control group (group C) were showed with non-educational programme. First 15 days, control group were showed with Ultraman for one hour per day and second 15 days with power rangers. Both treatments were taken for 30 days for one hour per day for five days (working days) directly from Monday to Friday. 30 days for the treatment with children in group E and C who were chosen by research because it is based on the study done by Singer and Singer (1998), in their study, they did 10 episodes of Barney and Friends. For two to three weeks they give the children watch the Barney's one episode per school day. The episodes also were shown at the children's day care centre, so that the children can view assemble.

Duration for watching Barney and Friends programme and non-educational programme for both groups E and C for each CD was one hour. During the exposure of Barney and Friends programme and non-educational programme, was shown for 15 minutes then break for five minute and then continue again for another 15 minutes and break again for another five minute and start again for 15 minute showing the Barney and Friends programme and non-educational programme for children among early childhood. Researcher had to break for five minute every 15 minutes after showing Barney and Friends programme for experiment group and non-educational programme for control

group because during the pilot study, children lose concentration and attention to focus and watch Barney and Friends programme. This was supported by Ruff and Lawson (1990), who mentioned that children in early childhood have attention span around five to 10 minutes. Meanwhile Benton and Nabb (2003) also stressed that child's brain can only focus to do something for 10 to 15 minutes. It is because in human brain, the basal rate of consumption of the glucose content would be exhausted in 10 to 15 minute. All the procedure and the flow during the assessment were same for both groups.

Control group was exposed to non-educational television programme to see the effectiveness and the impact of the programme and also to make a comparison with both groups, as well as to see the outcome before and after the treatment given to the two groups.

Children watched Barney and Friends programme and non-educational programme while sitting as a group. After watching Barney and Friends programme and non-educational programme for 30 days (both CD), post assessment was carried out with BSID-II again. The samples were tested individually in a quiet room in their kindergarten. All the results at pre and post assessment for control group and experiment group were analyzed by using SPSS V.18

4.0 RESULT

(i) Hypotheses Ho1:

Table 1
Means, SDs, and *t* values between two groups at pre assessment on cognitive development

Variable	Test	Group	N	M	SD	t	Sig.
Cognitive	Pre	Experiment	20	58.10	21.04	4.11	.000*
		Control	20	33.30	16.89		

Table above (1) showed the result of pre-assessment on cognitive development among early childhood. Result on pre assessment showed that there was a significant difference between experimental group (M=58.10, SD=21.04) and control group (M=33.30, SD=16.89), conditions; t (38) = 4.11 p=0.000).

Based on p value the hypothesis stating that there will be no significant impact of watching Barney and Friends programme between two groups at pre assessment on cognitive development among early childhood was rejected.

(ii) Hypotheses Ho2:

Table 2
Means, SDs, and t values between two groups at post assessment on cognitive development

Variable	Test	Group	N	M	SD	t	Sig.
Cognitive	Post	Experiment	20	82.35	13.35	7.57	.000*
		Control	20	41.10	20.38		

An independent sample *t* test was conducted to compare the experiment group in post assessment and control group. On post-assessment, statistically significant difference was noticed between two groups. Mean score for experimental group was 82.35, (SD=13.35) and for control group was 41.10, (SD=20.38) t value was -7.57, p was found as .000. Based on p value the hypothesis stating that there will be no significant differences impact of watching Barney and Friends programme between two groups at post assessment on cognitive development among early childhood was rejected. Result showed that Barney and Friends programme had significant impact on cognitive development among early childhood.

5.0 DISCUSSION

There are two groups involved in this study. One is experimental group and the other one is control group. For experiment group, the samples were assigned to watch Barney and Friends programme meanwhile the control group was assigned to watch non-educational programme.

Based on the Ho1 result, there is no significant difference impact of watching Barney and Friends programme between two groups at pre assessment on cognitive development among early childhood and Ho2 there is no significant difference impact of watching Barney and Friends programme between two groups at post assessment on cognitive

development among early childhood was rejected, so it showed that there is a significant difference impact of watching Barney and Friends programme between two groups at pre and post assessment on cognitive development among early childhood. The result on pre assessment showed that there is a significant difference between experimental group (M=58.10, SD=21.04) and control group (M=33.30, SD=16.89), conditions; t (38) = 4.11 p=0.000). Meanwhile on post-assessment, mean score for experimental group is 82.35, (SD=13.35) and for control group is 41.10, (SD=20.38) t value is -7.57, p is found as .000.

These results indicates that during pre-assessment between two groups is significantly have impact on cognitive development is because both groups level of cognitive development are not same. This involves a process of cognitive development that does not even occurred based on the age of the children. In this study, researcher used the samples of the age ranging 24 to 42 months. Kamarulzaman Kamaruddin (2011) mentioned that the children among early childhood have a constant level of cognitive development based on their age. Starting from early of the research, the researcher did not put the sample based on the same level of age and because the differences in age among the sample are at the age of 29 months, 33 months, 24 months, 40 months, then the level of their developments are obviously not the same. As a result of this, it causes the actual results at pre assessment between two groups have significant impact on the cognitive development.

Meanwhile for H_o2 there is no significant difference impact of watching Barney and Friends programme between two groups for post assessment on cognitive development among early childhood is rejected, so it showed that there is a significant difference impact of watching Barney and Friends programme between two groups at pre and post assessment on cognitive development among early childhood. This result showed that Barney and Friends programme is the best programme for the children to watch and it has proven successful on cognitive development among early childhood.

The positive impact of Barney and Friends programme on cognitive development noticed in the present study could be explained by using Piaget theory of cognitive development. In preoperational stage, children use symbols to represent their earlier sensory motor discoveries. Language and make believe play developed rapidly (Berk, 2009). In the second stage of Piaget's theory, (preoperational stage) the children in early childhood are same as in the present study, begin to use mental representations to understand the world such as creativity and imagination. New schemas may also be developed during this

process. For example, in this study, Barney introduces butterfly as an insect with wings and a young child may have an existing schema for butterfly. Butterfly has wings and can fly, so the child may automatically believe that all animals with wings and can fly are butterfly. When the child learns that birds also have wings and can fly too, she will undergo a process of accommodation in which her existing schema for butterfly will change and she will also develop a new schema for birds.

Activities related to cognitive function such as creativity and imaginations were noticed in Barney and Friends educational television programme. Children at this stage also consider the book as a car when they pushed it on the floor. However, in terms of quality, childrens' minds are still at a lower level compared to adults. For example, childrens' minds are egocentric in which the whole world is seen only from their own perspective (Asmawati Desa, 2004). In let's play school, Barney's friend Baby Bop had asked help from Barney to create an imaginative play scene by using his imagination power. When children watch this episode, they could pretend to attend the school and enjoy a fun filled day at "*Baby Bop's school*" where every lesson included unexpected surprised. In this episode, Barney asked the children to read together in Baby Bop's book Centre, ate macaroni and cheese and bounced into gym class. It is an unforgettable day of learning and laughter for children in early childhood to develop their cognitive development. This is supported by the statement from Berk (2009) which is in pre-operational stage, children begin to make believe play which would improve their cognitive development.

5.1 The Implication of The Finding

Children are the assets of the country. It is important to take note that children would get influenced by what they see and what they hear. Therefore, activities to stimulate their cognitive developments should be monitored and the learning materials should be appropriate and meaningful.

Parents play an important role in developing children's cognitive development and social skills. Parents should guide their children in using television effectively. The study found that Barney and Friends programme has an impact on cognitive development of the children among early childhood. Based on this finding, parents have to choose the best programme that can educate their children in a better way. This result emphasizes that the parents must be wise in choosing an appropriate programme for their children at home. When children are watching television especially educational television programme,

such as Barney and Friends, parents should sit and watch it together with them, parents can discuss the content and give explanation for a better cognitive development and social skills among children in early childhood. Quality time with the child spent by the parents is very important for the overall development of the children, especially cognitive development.

5.2 Recommendation Of The Study

The duration of educational television programme can be increased. In the present study, the exposure is only for 30 days. It is recommended that researcher should spend more time with the children and explain the content in detail. It would be better if the language of educational television programme is in their mother tongue.

Apart from that, it is suggested for the future research to look at other concept of development among the children in their early childhood such as in emotion development, creativity, and others. In this study, the researcher is only focused on the cognitive development of children. The future research could look into various developmental aspects.

5.3 Conclusions

The finding of the present study indicates that Barney and Friends programme has an impact on cognitive development of the children. So it important to choose what they watch on television screen and parents and teachers are the best people to choose the suitable programmes for them. The programmes should be interesting, meaningful, stimulating and enriching and suitable to the socio-cultural environment.

There is limited research on Barney and Friends programme in Malaysia. For this reason, this study aims to explain the impact of Barney and Friends programme on the cognitive development among early childhood children. The result showed significant impact of Barney and friends programme on cognitive development of children among early childhood children. This study highlights the importance of educational television programme and the role of parents and teachers of the children in early childhood.

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