



Research Article

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Pre-Schoolers' Parental Concern on Educational Effect of Information and Communication Technology on Children's Learning

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Abstract

Technology has been the bread and butter of learning not only among school going children, but also those of pre-schoolers. Its access and usage has become the perennial tool to generate learning. Hence, it comes with the effects of the learning process. This study attempts to investigate the concern of pre-schoolers' parents regarding the access of Information Communication Technology (ICT) that takes place both in school and at home. This has also become the cause of concern for parents as their children are exposed to its access and usage, conveniently 24/7. To conduct this study, questionnaires were given and duly completed by 10 parents in a small school of eighteen pre-schoolers. These pre-schoolers ranged from the ages of 3 to 6 years old. At these ages, the children have ICT knowledge, at home ranging from leisure games, electronic toys, mobile phones, television, CD, and computers. They have well educated parents with concerns on child computer addiction, health matters and lack of social values. Discussions on the findings focus on the advantages and disadvantages of technology access and usage among the pre-schoolers. They also included the questions on methods of access control or preventive measures to ensure safe ICT use for these pre-schoolers. This study took a qualitative approach as it was suitable to access the respondents' perception and opinion via questionnaires. The analysis of the study results indicated that ICT had positive impact on education. The concern and setback for parents were the health issues, dark webs, and lack or over socialising. More often it is lack of social mingling.

Keywords: ICT, pre-schoolers, parents, concern, access control, preventive measures

1. Introduction

Technology is an application of science, tools, machinery, modification, arrangements, and procedures, to solve a problem. Technology creates tools that allow processing of actions and

extracting of materials (Scott, Jones & McKenzie, 1940). Science and technology are two different subjects even though they work hand in hand. It is used to accomplish various tasks in lives and to improve people's abilities to make life easy. Making people human is an important part of the technology system. Hence, technology is human knowledge to be well applied for the benefits of humans, if wrongly applied can cause harm on human senses (House, 2012; Zomer, 2014).

In the world of education, parents and teachers alike feel that it is their task to prepare children for a life of Information and Communication Technology (ICT) which is a part of Information Technology (IT). Parents, teachers, and schools then set to prepare an environment that is conducive for children and students to acquire the ability and use of IT. It is therefore important to acquire and have the know how to access technological information, to be part of the organisation as well as to be creative and productive using ICT. Parents and teachers must acknowledge that IT learning is therefore a continuous acquisition of knowledge for the youngsters' learning and teachers' teaching that is uninterrupted (Young, 2003; Ghavifekr & Rosdy, 2015).

In preparing for the advent of technology, parents are at the threshold to prepare their children for a life that changes with technological advancement. Information technology has become an advantage to all. Nevertheless, IT is aggressively changing for the society's benefit. One of the huge changes in individuals, communities, and societies, is the willingness of these groups to accept Information Technology (IT). Like most technology, IT increases the participant's proficiency as well as change one's behaviour and morality (Verbeek, 2000; Bats, Valkenburg, & Verbeek, 2013). Therefore, it is critical that children have access to technology needed in modern education for communication, creativity and as a learning tool.

With this requirement in learning, parents anticipate that this know-how by preparing and exposing their children to computer use and IT is becoming the norm. In this human activity, the society undergoes evolutionary changes. With the introduction of IT, parents and their children prepare to accept changes at home, schools, and workplace to adapt and live in this everchanging world of technology. In Malaysia, using ICT in education is not only at its prime for the lower primary schools, but it is also in full force for the private international schools. Parents realise that the usage of IT in education develops life-long learning skills towards learning enhancement. IT incorporates transformation as it upheaves societies by changing one's perception, work and lifestyle (Grabe, 2007; Ghavifekr & Rosdy, 2015).

Information Communications Technology (ICT) brings different meaning to different people. In coming to terms with ICT, subsequently it has become an integral part of human daily lives. In terms of the learning activity, private schools from pre-school level to the highest; work sheets are posted in the computer or iPad. Together with the parents' assistance, the pre-schoolers can do pre-assigned schoolwork. The days of copying 'homework' from the board are almost obsolete. Students and parents work together with teachers through IT communications. Parents and teachers believe the benefits and the setbacks that are rooted by technology (Funnel, 2011; Zomer, 2014).

In keeping up with ICT and life in this modern world, parents and schools have acknowledged that it is hard to move on with life without acquiring computer and ICT skills. Thus, mindsets of parents, teachers, and institutes of studies; from play schools to the highest academic institutions; is for the young generation to be technologically competent. The young generation should be well versed with ICT advancement and to have the ability to be familiar with modern gadgets. Technological understanding will help these young people to enjoy communicating and learning with one another.

ICT is an integral part of IT, which is going to keep advancing giving its impact and influence, to the present generation of young children and adolescents. The young generation of today understands the importance and demands of social networking, instant connection with friends and web surfacing. This generation is in the era of modern technological gadgets, which captures the attention of global population. A young generation that is dependent on technological gadgets must get along with their everyday living. This is the generation that has reached a level of 'nophonomania' whereby these young people cannot leave their home without their phone. IT creates a generation

that is dependent on technological gadgets. The society is totally dependent on technological gadgets which then lead to technological gadgets addiction. The effect includes becoming a society that can only function when and where there are IT devices and services accessibility. At the same time, IT has been proven by researchers to govern and enhance learning aptness ardently (Finger & Trinidad, 2002; Jorge et al., 2003; Young, 2003; Jamieson-Procter et al., 2013; Ghavifekr & Rosdy, 2015).

Addiction to technology is defined as not having control over doing, taking, or using something to the point when it can be harmful (National Health Services Choices U.K., 2015). Addiction can be used in many behaviour patterns, namely drug, food, work, and technological addiction. The use of computer and mobile phone use has increased, so has the addiction to these gadgets. The advanced functions in ICT gadgets are developing fast in order to facilitate, improve and change people's lifestyle. Due to the advancement and development, time is devoted to these gadgets. These gadgets are used for entertainment and social relationships. This is an implication of addiction. Hence, parents have become aware and are concerned of the negative or positive effects of technological gadgets. These causes of IT addiction may have effects on the society, psychologically and sociologically. Subsequently, these impacts if left unmonitored have undesirable effects on these young people. Hence, this paper intends to present the concern adults have in terms of technology towards the young children of today.

2. Literature Review

In 1998, the Malaysian Communication and Multimedia Commission (MCMC) stated that 72 percent of the 18.6 million internet users in this country are between the ages of 7 and 35. The Internet World Statistic shows that Malaysia is among the ten Top Asian Internet Countries with more than 20 million Internet users. According to MCMC Head of the Outreach and Engagement Division, internet affects urban youngsters in rural areas as well. The effects of internet are clear and noticeable more so in schools that provide free laptops and internet access.

From the World Federation of Mental Health 2014, mental health is a state of well-being in which the individual realizes his own abilities, can cope with normal stress of life, can work productively and fruitfully, and is able to make contribution to the community. Meanwhile, exposure to ICT tools has become a health issue for many children in terms of mental health. This core concept of mental health is consistent with its wide and varied interpretation across cultures. Mental health and illness are determined by multiple and interaction social, psychological, and biological factors. Technological computer programmes may help improve the quality of life, particularly for children with mental issues, accident cases, drawbacks, or special needs like autism. Through computer these special children are given a chance to communicate. Through picture exchange communications, IT allows children with special needs to express themselves. The use of computers enables special children to key in pictures, enabling these special children to 'ask for drinks' and hence communicate.

Skinner (1948), a behaviourist, developed a theory called 'Operant Conditioning' which states: 'the idea that behaviour is determined by its consequences that is being reinforced or punished'. Skinner observed that reinforcement makes it more likely for the behaviour to be repeated. It is the mental training that the child received. A child gets used to gadget using, that parents introduce consistently to 'appease' the child, which is the conditioning of the child. The attractive and enhancing picturesque

presentation put forward by ICT is aimed at capturing the interest of the young minds. Meanwhile, a child's exposure to video games, should be a concern, as these games can be very aggressive. These violent and vicious games are realistic, rough, cruel to people; while animals, properties and even 'creatures' in the game are vehement. These are traits that children should not be exposed to. Titles such as 'Dead Space 2' listed as suitable for 18 and above has mature rating. However, it is easily accessible for all. In the game, players must fight to stay alive therefore must kill the enemies that appear as corpselike creatures. A child that is heavily exposed to aggressive games or

movies may develop a killer mentality. A child is then 'conditioned' that he must fight or defend himself to live, just as in the games he plays online.

In Malaysia, majority of the children aged between 7 and 12 lack physical exercise. It is stated that only 27 percent of Malaysian children are engaged in physical activities via a study by Southeast Asian Nutrition Surveys (SEANUTS, 2013). A Dutch company named Friesland Campina with four other universities from Malaysia, Indonesia, Vietnam, and Thailand in 2013 revealed that every 20 children, one is underweight and five are obese. Similarly, according to the International Conference on Communication and Media 2014, which was held in Langkawi Malaysia, it has been observed that Malaysian parents react differently. This finding was also similar with that of a research published by a British journal in 2013. In this finding it shows how parents reacted to their children's on-line activities and behaviours. In Malaysia, 4 out of 10 parents were aware of what they were doing and that their children were accessing the internet (Ismail, 2010; Ghavifekr & Rosdy, 2015). In addition, 92 percent of Malaysian parents set rules with their children on the use of internet activities, whilst the remainder say that they have not set ground rules or policies with regards to internet accessibility (Norton, 2010; Gauvain & Munroe, 2012). It is only right that parents are concerned of the online risks and dangers of the internet (Livingstone, 2008; Aksoy & Baran, 2010).

The lifestyle of this generation is one that is technologically gadget dependent. Interaction takes place with one another through the internet or cell-phones. ICT advancement has arrived and is improving (Rakap, Balikci, Kalkan, & Aydin, 2018) lifestyle. Therefore, policymakers, schools and parents should have future foresight plans as that ICT has climacteric purpose (Dudney, 2010; Ghavifekr & Rosdy, 2015). The availability of mobile phones has removed distances, hence keeping cost at its minimal. Therefore, as the world gets smaller, the migration factor is not an issue. IT brings together families that are left, as they can enjoy communication with one another at minimal cost. This is possible through the use of the rapid development of computer and telephone. Humans then apply and take advantage of what technology has to offer. In another situation, mailing system and public phones are no longer a dire need. Today, people in different countries do not have to wait for days or weeks to communicate or exchange ideas. This global technology occurs instantly in real time (Kaufman, 2015; Joy, 2016).

In 2017, a research by the Department of Population Distribution and Basic Demographic Characteristic Malaysia (PDBDC), stated that youth of under 18 years, makes up 30 percent of the 32 million population (Department of Statistic Malaysia, 2017). The youth at present obtain a significant amount of allowance as compared to the youth of the past. The allowance given to them has enabled them a higher purchasing power. Besides having the capacity to purchase, they also have the freedom to decide. This results in the changing trend of purchasing pattern and power, as manufacturers are selling to younger market. The consumers have become younger, comprising those of ages ranging from 15 to 24 years old (Lewis & Bingham, 1991).

Henceforth, the development of ICT gadgets by manufacturers are appearing faster and more aggressive. Manufacturers then introduce various applications in gadgets, in order to compete and capture the market. Companies outsmart one another, resulting in consumers young and old are spoilt for choice. The companies produce gadgets that are so advanced at a reasonable price; attracting the youth market and making it easy for all to own a minimum of two gadgets per person at least. Technology helps to solve problems on time difference. This is overcome by satellites that improve technological communication among countries.

All these advancements eventually change lifestyle. Due to the advantages and development, the younger generation devote time to these gadgets. Is it then not surprising if 80 percent of these youth surf the internet for various forms of information? Technology advancement by the government and having space disc, ICT gadgets have become more affordable, and it has 'stormed' the Malaysian market internet use. These gadgets are not only attractive to the working adults, adolescents, students, and young learners, but the gadgets produced also mesmerise young children. So much so, IT may turn this nation's youth to a society that lacks social interaction and passion, has health issues and has forgotten the feel of a book to read.

This study is to acknowledge that the new young generation of today, should be exposed to ICT for them to benefit and enjoy future advancement. Meanwhile, IT benefits could be easily retained by the child, such as how to answer examination questions, in English as in the case of Malaysia. This is possible as the child learns through ICT gadgets, he realizes that learning is fun, has innovative presentation information and fingertips information. Hence, technology may make a change in children's learning and development (Children Now, 2009; Ko & Chou, 2014; Parette et al., 2010; Rosen & Jaruszewicz, 2009; Zomer, 2014).

In using this technology, knowledge is attained in a conducive and comfortable environment of the school or home. The fingertip information, the presentation and the vibrant colours thus enhance and capture a child's interest. Children should know the use of ICT well enough for them to exploit and take advantage of this technology. Thus, parents ensure that their wards master IT at their fingertips and acquire knowledge to benefit technology, for education and self-improvement. ICT is important for its positive contribution, yet it is necessary to be aware of its adverse setbacks. It is only right then that parents retain responsibility to protect their child. Therefore, parents become weary of the menace of IT by protecting their young ones from ICT addiction due to over exposure.

On another health issue, the school also uses computer's technology to explain matters, such as on germs, which cannot be seen with the naked eye. ICT comes into place as the graphic and explanation as well as the actual enlargement of germs through microscope. The technological photos on germs entice and captivate the young mind. This is to make the children realize the importance of cleanliness, through washing hands before eating and the washroom use. Again, ICT assists teachers and parents to show and introduce to the children in the tropics, the four seasons or weather like typhoons which are not experienced in Malaysia. In addition, ICT assists in the introduction and understanding of the eight planets of the solar system through songs and play act. The songs are child-motivated, thus capturing the child's interest. Meanwhile, IT is also used for music when doing dancing and movements. The school uses radio which enthralls the children.

The main objective of the study is to explore the concerns of parents on IT impact on early childhood education, and parents' perspective on child's exposure to ICT gadgets. The study also aims to evaluate parent's reasons for introducing ICT gadgets to their children; investigate how parents can ensure that their child is safe from 'dark' internet; assess parent's views on health issues on children due to time spent on gadgets; determine how parents prevent relationship gaps between children, families and friends due to gadgets, and analyse on parents' views with regard to the positive effects of children using IT.

3. Methodology

To collect data for this study, questionnaires were given and duly completed by ten parents in a small school of eighteen pre-schoolers. These are well-educated parents with concerns on the child computer addiction, health matters and lack of social values. Through interviews, these parents responded to the questions. To access the respondents' perception and opinion, this study took a qualitative approach.

3.1 Location and Description of Study Site

The study was conducted in the Klang Valley at the Whitehouse Childcare Centre, located in the Damansara Heights area. The centre is privately run and has its participants living in or around the area of the Federal Territory.

3.2 Data Collection

The approach of gathering information was by using interview questions. Interview is one of the practical methods that gives access to a participant's perception and opinion. During the interview,

the participants and their thoughts served as a study object; with pre-planned topics and issues which act as a guide.

3.3 Sample Respondents

The parents participating were also ICT users and were actively using it in their work or personal use, making them viable for the study. In all, the participants were firm users of ICT. A total of ten participants were involved in this study. This was to ensure that the data gathered were valid. The details of the respondents are shown in Table 1 below.

Table 1: Background of Respondents

Name of Parents	Age of Child	Gender	Profession/ Education of Parents	Nationality
Freja	3 years	Female	Corporate/ MBA	New Zealander
Alicia	6 years	Female	Home maker/ registered nurse	Australian
Adam	4 years	Male	Pilot & accounting	Malaysian
Riana	4 years	Female	Analyst	Kazakhstan
Isfahani	6 years	Male	Home maker/ degree in marketing	Malaysian
Newton	3 years	Male	Oil & Gas	Hong Kong
Emily	5 years	Female	Lawyer	British
Annette	2 years	Female	Teacher/ Master's in Education	British
Garai	2 years	Male	Teacher / master's in arts	Spanish

The participants were from United Kingdom, Australia, Kazakhstan, Hong Kong, Spain, and Malaysia. They were parents of the pre-schoolers and were actively involved with their children everyday upbringing. As technological gadgets and internet in Malaysia are easily accessible, the questions forwarded to these participants were similar; knowing that they shared the technological understanding, as well as similar lifestyles. In this study, parents interviewed have children between the ages of two and five years old and the graduated ones of six years old. These graduates were all in international schools. This gives limitation as the affordability and parent's background education creates a form of preconceived perceptions of the pros and cons on ICT use. These parents are mostly mothers who have a degree who can afford to choose to work or not. They prefer to care for their children themselves as they choose to be stay home mothers. They give their fullest time, attention and to the welfare of their children.

3.4 Research Instrument

The research instrument used to collect data for this research involved semi-structured interview questions. Questions were constructed guided by previous research findings about the same topic. The interview questions were divided into two parts, participant's demographic background and questions on parent's perspectives about the use of ICT among their pre-school children.

3.5 Sampling Design

Semi structured questions were posed, with standardised questions asked during the interview with the parents. Parents were provided with questions regarding the use of technological gadgets, services ICT has to offer, the impact on health on their children and social status. The choice of questions was prepared based on study with young children. Hence, the concern was also on health issues with young children. The data gathered was a success for qualitative analysis of the study. The interview was not strictly following a formal question format. Questions forwarded were open ended, allowing the flexibility of discussion on both the respondents and the researchers. This allowed them

the freedom to express openness for both parties, yet not compromising the research intended. These questions allowed parents to explain their views, rather than an interview that applied a straightforward format, in which parents were not given room to express views.

As participants were from various countries, the questions took into consideration culture views, problems, and solutions. There was however no language problem as all were fluent in English. To acknowledge their differences and similarity with their own background, the questionnaire was based on the know-how of their background. Use of semi structured interview questions; prepared informal grouping topic and questionnaire that were asked in different ways to different participants. Questions given to parents were with regards to the use of technological gadgets, service and impact on health and social status. The choice of questions was set up because the study dealt with young children.

3.6 Data Analysis

After collecting the data from the interviews, the audio recordings were transcribed into words processing documents. Each interview was transcribed and repeatedly heard, to get better understanding on what was expressed by the participants, during the interview before finding the appropriate codes for the data. Data were coded so that they could be easily retrieved for comparison and analysis. After sorting the codes, the researcher determined the themes, using a deductive approach.

4. Results And Discussion

4.1 Economic Profile of the Participants

As informants, these parents participated in this survey were of the upper-middle income group. Due to these parents' status, the probability of a child's access to more than two technological gadgets is high. Issues on purchasing power are negligible, as these parents do not wish their children to miss out or lag in school or society. These parents want their children to be at par in the technological race. The economic data of these respondents' income is between RM30 000 and RM100 000 per household per month. These participants on average have a maximum number of four children, with the capacity to purchase, go on holidays, send their children to private schools, live in comfortable homes with personal security and own luxurious cars. They do not compromise as they strive to provide the best education and lifestyle for their family members.

4.2 Description of the Usage of ICT among Children

This section has the research findings discussed, following five research themes discovered from the data collected. Each theme is discussed in detail supported by evidence that was found in the analysis. It was found that ICT affects children. Its effect has varied reactions on different children. It varies from the time spent in front of technological gadgets to freedom of gadgets used. The accessibility of internet within the nation, home and school are factors to be reckoned. With the development of Multimedia Super Corridor (MSC), the nation's internet accessibility is nation-wide. Its contention is to bridge the gap between the urban and the rural living. However, the effort to bridge the internet know-how in the rural areas proved to be difficult. This is to fulfil the 2020 vision towards creating a knowledgeable society (Musa, Bahaman & Hayrol Azril 2012; Phoon, Abdullah, & Abdullah, 2013)

Thus, this accessibility is fully enjoyed in the urban development, whilst being slightly hampered in the rural areas. These rural areas are often small in area with low population, making these areas a non-profitable zone to organizations (Hassan, Murat & Kemal 2007). The National Statistic Department of Malaysia (2013) defines rural areas as those with limited encroachment that

has a population of less than 10,000 people. Most often they are labelled as poor. This will in turn affect not only the students' acquiring technological know-how and skills, but it will also hinder education that requires the use of technology. Without proper accessibility teachers are not able to apply the ICT teaching process.

In another area, this study has shown parent's affordability to purchase ICT products, varying from rural and urban dwellings. Parents that dwell in the city know and understand the importance of IT and these parent's capacity to purchase is unquestionable. This is due to the income from both working parents, and parents that hold high positions at work or those that are just born into money. Thus, it would be an imbalance to compare rural and urban. Meanwhile, it remains that people of low income or rural areas find it difficult to meet to this high cost of IT gadgets. Again, the role of a teacher is detrimental to ICT education. If a teacher has skills in IT, students may then enjoy and get to acquire the benefits of IT education. However, if a teacher who has a negative attitude are not able to deliver the best, which in turn does not benefit the student. Upon proceeding with the analysis, it shows the degree of influence on ICT. It is therefore not surprising that some parents that are aware of the importance of ICT, encounter a dilemma, as they must weigh the pros and cons of ICT usage. Parents are in a crossroad so as to manage ICT introduction, as they need to ensure that their young children are not addicted to ICT.

Through the survey questions, it is known that the children of the respondents involved have cell phones, iPads, and computer even at the early age. The study shows that 99 percent of these children have two gadgets, while 55 percent own a mobile phone. With the availability of gadgets provided to the children, it is only natural that they tend to spend time on what young children of today view, play games, watch movies, and communicate. Normal toys do not hold that much fun as the old standard values of children in the past, as children of today have ICT at their fingertips.

The outcome from this research tells that the impact of ICT gadgets on young children and the management of ICT, depends on parental control, judgement, and perception on technological gadgets. In this way parents then, allow their children to be exposed to ICT gadgets. There are various factors that dictate parent's reasons for exposing these gadgets to their children. These factors vary when interview was carried out. Parents are subjected to acknowledge that technological gadgets such as computers are a must in schools especially so, in private schools. For parents from the local schools they fear that if their children do not have the computer advantage; their children will lag their peers. Parents know that in this technological and competitive world, the idea that their children are not 'in' it and being left behind, from technological advancement, cannot happen to their child. Thus, they take it upon themselves to decide the children's progression in ICT knowledge. Being in a nation that has its own satellite, it is of course an advantage as internet is available almost everywhere.

In this country, the cost of ICT gadgets is competitive. This is made possible by the manufacturers of gadgets, for economic reasons and business gains. Manufacturers are encouraged by the concept that almost anyone can purchase and own at least a gadget. Now a smart phone has all the applications that a laptop has, the rush to own one of such items is on the demand. Therefore, when one owns a smartphone, one is able to retrieve information. Knowledge and getting information through ICT, goes beyond school, as it goes to office work and becomes personal. It has become an asset in job applications, schools, and information resourcing. The importance of ICT in these areas makes it harder for parents to ignore ICT importance. Parents have very little room but to allow their child to be exposed to ICT use. Parents are not willing to take a chance of their child, losing an opportunity of a good life due to ignorance of ICT. Thus, the effect and influence has been seen during this research. It is without a doubt that, technological gadgets introduced to young children, are the responsibility of parents. Parents have to 'bite the bullet' despite them being aware of the positive and negative impacts on their children. ICT gadgets have effects on their loved ones, yet parents still choose to introduce gadgets to their children. Hence, necessity drives away the power of reasoning.

This study also found that these children are strictly monitored by adult supervision or 'secret password'. This password is only accessible by the parents or trusted adults. Through such measurements taken, the participating parents know that their children's ICT use is under control

within their family. Hence, it is not surprising that 92 percent of Malaysian parents set established rules with their children. Meanwhile, only 34 percent did not set any form of rules (Norton, 2010). Knowing that IT is necessary for schoolwork, a child may take advantage of this situation. Parent's tasks are further challenged by the power of peer influence or peer bully, which is most concerning, due to its adverse negative outcomes. This is the major dilemma that haunts parents. The very same technology that helps their children with their schoolwork and enhances their online skills is the very same technology that traps their children to the dark side of internet (Guan & Subrahmanyam, 2009).

Online danger may threaten their children's safety. Studies revealed that quality parent-child attachment is important in identifying problems that their children may have or may occur with internet browsing (Liu et al., 2013; Harakeh et al., 2004; Van der Vorst et al., 2010). ICT gadgets are accessible to everyone and especially young children. Thus, parents provide these gadgets to their children and then keep a watchful eye and feel that their children are under their control and safety.

In 2015, the Department of Statistic Malaysia stated that 71.1 percent of young children aged 15 years and above used the internet. This finding shows that parents allow or provide ICT use, due to school demand. All private schools use IT for schoolwork, giving parents no choice but to comply. Parents from the government funded schools, which purportedly has computer class then seek after school lessons, in tuition computer classes. Seeking out of school tuition is due to the poor laxity attitude of the local schools. By doing so parents whose children are in the local schools ensure that their children have the IT knowledge. In both cases, ICT gadgets are purchased to provide and expose their children into a technological world for their education and future success.

In a study by Yu, Abrizah and Md Khir Johari (2016), it suggests that Malaysian teachers understanding on information literacy, teaching practices and instructive approach, are comparable to other develop other countries. However, the setback is that Malaysian teacher's outlooks are superficial, lacking in richness and adaptation. These outlooks and perceptions tend to influence, limits, shape, teacher's focus, and information on literacy. They may be due to lack of knowledge, lack of confidence, weary of culture, religion, language, and society culture that is Malaysian. With the inclusion of bigger children of age seven to twelve, the study sees a bigger effect of ICT. The advantage is either a phenomenon or a set-back. Parents are left with less option as they need to cope with ICT expenses and management as well as ensure family safety and interaction. A comparison could be studied and made to realise that family background does make a difference.

Limitation in this study involves the difficulty in getting Malaysian Education Department to adapt the concept that ICT should be introduced as 'playing with ICT' as well as boosting-up teacher's confidence in teaching. Taking examples of countries in Europe like Greece, ICT is termed as 'playing with ICT', thus it becomes an effective learning and development mode. Locally, the Education Department has to encourage technology competence among teachers that have strong confidence and belief in ICT for the future. Therefore, it is not surprising that International Journal for Early Years 2015 observed that there is more to ICT than just free play.

In general, Malaysian parents are ready to accept their young children 'playing with ICT' in schools. Malaysian parents are spoilt for choice, as there are more than 100 private schools which offer computer class as part of their education syllabus. Malaysian parents who do not have a choice will have their children in the government schools, and home schooling. In addition, every party must deal with poor management of IT lessons or no computer teaching due to shortage and bad maintenance in government schools. Therefore, parents remain adamant to have their children learned about computer usage in various means.

5. Conclusion

Being parents, it is their decision to allow the use of ICT to their wards. The former must acknowledge the power of technology and that it should be harvested. To meet the challenges of the present time, technology must be relevant, responsive, and effecting the citizens of the world. Preparing the young citizens in dynamic learning conditions is necessary in the teaching and learning for the child and

educator (Macho, 2005; Ghavifekr & Rosdy, 2015). One flagship was the Malaysian Smart School; an institution reinvented to teaching-learning practices to prepare children for the Information Age in early 1996. Conceptualizing it in 1997; the Ministry of Education came up with a document entitled 'Smart Schools in Malaysia: A Quantum Leap'. The contention of smart school is to enable the citizens to move forward and stand firm at the same level as a developed country, globally. The ministry took to task, the education subject by making school principals as the main motivator. Parents and schools encourage closeness amongst family, friends, peers, and teacher-student relationship.

Working hand in hand is the Education Ministry that provides schools with teaching and learning materials, namely technology infrastructure, such as laboratory, smart whiteboard, and media materials. Embarking into an elaborate scheme includes well trained teachers ready to change their mind-set, stack up ICT training, familiarity with equipment and competitive cost of maintenance. Most crucial is schools should not overlook pre-schoolers background as some may come from a non-academic background with preference to learn the traditional way of learning. For such curriculum to succeed, teachers, students and parents are required to be mentally and physically ready to accept changes.

What the ministry envisaged was the introduction of computer curriculum that would improve these pre-schoolers technological skills. Educators should resolve with solutions, on how can children; from parents of low income or non-academic lifestyle, gain technological education with this new system. This idea mooted should benefit Malaysian students from every nook of the nation.

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