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The Use of Educational Toys by Parents of Children with Intellectual Disabilities

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Abstract

Children with intellectual disabilities understand and learn things in relatively slower pace compared to their peer, so they need stimulation from various ways and means in order to develop optimally. Educational toys (ET) are the best learning tools for children with intellectual disabilities. Parents as a natural educator for children have an important role in their children early stimulation. The problem is, have said parents already used ET to stimulate their children's development? Twenty six parents of children with intellectual disabilities were answering that in this study. Result showed that there were four categories regarding ET use by the parents, which were 1) parents who aware and consistently using ET to stimulate their children's development, 2) parents who seldom using ET for various reasons, 3) parents who didn't actually aware of ET but using it, and 4) parents who never used ET at all.

Keywords: children with intellectual disability, educational toy (ET), parent

1. Introduction

According to Diagnostic and Statistical Manual for Mental Disorders Fifth Edition (DSM-5) (APA, 2013) intellectual disability or intellectual development disorder is a disorder in intellectual function which occur since the developmental age. Children with intellectual disabilities usually have difficulties in reasoning, problem solving, planning, abstract thinking, decision making, academic learning and experimental learning.

Considering these difficulties children with intellectual disabilities are having, certain teaching method is needed in order to optimize their development. Educational Toys (ET) are one of those tools that can be used to stimulate the development of children with intellectual disability, because ET are specifically designed to stimulate children's developmental aspects i.e. psychomotor (body muscles, body parts, fingers), communication, interpersonal relationship, intelligence, and self-help (BKKBN, 2012). These characteristics of ET are highly compatible for educating children with intellectual disability and suitable for parents to stimulate their children since early childhood (BKKBN, 2012; Tedjasaputra, 2005).

The problem, however, lies in whether parents of intellectually disabled children understand the importance of ET as tools to stimulate their children's development or not. Are parents of intellectual disabled children aware of ET and what it serves? How far are these parents of intellectually disabled children able to use ET for stimulating their children's development?

From the first author's experience as consultant in *Pusat Pelayanan Gangguan Perkembangan Anak* – P2PGA (Centre for Developmental Disorders) "Renaning Siwi" in Semarang Indonesia, generally, parents of children with intellectual disabilities did not aware and recognize the use of ET and they never used it as a tool to help them developing their children's skills and abilities. Some parents with intellectually disabled children have an experience in using ET without being aware that they were actually using ET, and thus can not gain the maximum advantages of it.

The objective of this research is to understand parents' knowledge about ET and how they use it to stimulate their children's development.

2. Parent's Role on the Development of Children with Intellectual Disabilities

American Association of Mental Disorder (AAMR) defined intellectual disability as a disability marked with distinct limitation in both intellectual aspect and adaptive functioning in conceptual, social and practical domain (APA, 2013; Feldman, 2011). Sturmey (Bouras & Holt, 2007) also Martin and Pear (2007), referring to mental retardation criteria in DSM-IV-TR (2002), stated that intellectual disability characteristics included significantly below average intelligence, deficits in adaptive functioning and that the onset were present since developmental age. This argument indicates that intellectual limitation is causing person to have some obstacles in adapting academically, in interaction with other people and other various everyday which already present since their early years.

Intellectual limitations in children are causing them to have some difficulties in understanding and learning various things and this makes them appear slower than their peers (Drummond & Jones, 2010). Hence why, in their development, children with intellectual disabilities need special guidance from adults so they can optimize their potential.

This special guidance particularly comes from children's closest environment, their family, especially their parent. Martin and Pear (2007) said that being a parent is a tremendously challenging job. In addition to meeting a child's basic needs, parents are totally responsible for their child's initial development, and they continue to share this responsibility with teachers and other as the child matures through the early school years, adolescence, and into adulthood.

Parents are children's primary educator and home is their primary environment. In this context, parents' role is important since children's development is their first and foremost responsibility. On his bioecology theory, Bronfenbrenner (in Papalia et al., 2009) said that parents are a part of microsystem environment that influence their children. Because of that the parent should provide their children with supporting environment, precise tools and encouragement so that their children, especially children with intellectual disabilities, can develop their potentials

optimally. However, it is not a rare case to see children with intellectual disabilities failed to obtain any guidance from their parents or other adults around them so they are lack of required stimulus for their development. This was parallel with what Tonge (Bouras & Holt, 2007) has said about children with intellectual disability, that they often did not have the chance to play, doing daily activities and socializing. With those limitations children with intellectual disability had, the lack of environment stimulus could led them to a greater developmental delay compared to their peers.

Seeing that these delays in children with intellectual disabilities are concerning almost all of their developmental aspects but physical aspect (Kerig & Wenar, 2006), it is wise to assume that the first thing parents can do for their children is by giving them early stimulations in all aspect of their development as far as they can. This early stimulation could optimize children abilities in various important developmental aspects.

3. The Function of Play on Children's Development

For young children play is more than what they do to pass the time, because play helps them develop socially, cognitively and physically. Play even performs an important role in brain growth and development (Samuelson & Johansson, 2006; Ginsburg et al., 2007; Whitebread et al., 2009; in Feldman, 2011). Maria Montessori once noted, and Piaget would agree (Woolfolk, 2004), "Play is children's work". We saw that the brain develops with stimulation and play provides some of that stimulation at every age. Babies in the sensorimotor stage learn by exploring, sucking, pounding, shaking, throwing - action on their environments. As children grow into adolescents, play continues to be part of their physical and social development (Meece, in Woolfolk, 2004).

Play is natural activity for children because it allows children the opportunity to create, invent, discover, and learn about their world. It provides children joy and understanding of themselves and others. According to Hilda (1997) play allows a child to use large and small muscle skill, express feelings, develop the use of the senses, talk and share ideas, concentrate and develop attention/interest span, increase intellectual activities and problem solve, exercise the imagination and creativity, have uninterrupted time to experiment and explore, practice various types of behavior and develop a positive self-concept. On the other hand Vygotsky (in Feldman, 2011) said that pretend play is an important means for expanding children's cognitive skills because children are able to "practice" activities that broaden their understanding of the way the world functions. These functions of play tell us that childhood play has a key role in the development of self and identity. If the parents of intellectually disabled children understand these, so they can help their children develop to their fullest potential.

4. ET Function in Stimulating the Development of Children with Intellectual Disabilities

Children with intellectual disabilities are having a complete limitation. Kerig and Wenar (2006) stated that children with intellectual disabilities were having a specific thinking deviation, which were the lack of comprehension about relevant aspects regarding their situation, attention deficit, memory deficit, difficulties in problem solving and generalizing. Nevertheless, these children still can develop as optimally as their capacity allowed as long as they are in a supporting environment (gaining acceptance, supporting tools and precise learning method).

One strategy that can be used to stimulate the development of children with intellectual disability is through playing activities, because children world is all about playing. There are two categories of play in general, i.e. functional play and constructive play. Functional play include simple and repetitive activities, like jumping, skipping or playing objects such as cars or dolls. In constructive play children manipulate objects (for example legos, puzzles, blocks) to produce or build something. Because of that, it is very important for parents to play with their children and provide a variety of toys that allow for both types of play (Edwards, 2000; Shi, 2003; Love & Burns, 2006; in Feldman, 2011). Through playing, children can learn various important skills for their life (Santrock, 2002; Feldman, 2011). Sheridan (2008) said that toys were natural tools for children to learn about everything. Consistent with this argument, Delphie (2009) argued that children with intellectual disabilities highly need to be encouraged to play because through playing they could develop new set of skills. When playing, the toy they use could help them to overcome their limitations.

In playing, parents can use anything provided in their environment as a tool to play, but there are toys that specifically constructed for specific purpose, particularly those which related with children education. These kinds of toys are called ET. Hence, ET are tools specifically used in children education, such as stimulating toddler's gross and fine motor skills (body muscles, body parts, fingers), communicating and developing interpersonal relationship with others, intelligence and self-help. In a sense, ET are tools for playing but constructed with specific purpose on stimulating children development (BKKBN, 2012; Delphie, 2009; Tedjasaputra, 2005).

According to it's function, there are several types of ET (Tejasaputra, 2005), namely (1) ET used to build anything (house, tower, bridge etc.), (2) ET use to enhance child's comprehension about shape, color and size (puzzle, pin board, colored paper etc.), (3) ET use to enhance child's imagination and creativity (paper and pencils, dolls, puppets, mini household equipments & vehicles etc.), and (4) ET use to release extra energy (balls, rope etc.).

As toys for educative purpose, ET give a chance for children to probe and try in accordance with their interest, abilities and developmental age. ET also can stimulate children's comprehension towards something and let them discover new concepts (BKKBN, 2012). It can be used in various ways, serves for many purposes and advantages so one toy can stimulate more than one aspect of children development (Tedjasaputra, 2005).

5. Method

This research was conducted qualitatively because it interpreted non-numeric data such as experiences, feelings and subjective beliefs (Papalia et al, 2009) in regard to what parents know about ET and its use as a tool to stimulate the development of their intellectually disabled children.

5.1. Sample and Procedure

The participants were 26 parents of children with intellectual disabilities. Five participants were parents of clients of

centre for developmental disorders "Renaning Siwi" in Semarang, Indonesia, while the rest were parents of students of public school for children with special needs "SLB Negeri" in Semarang. All participants were chosen purposively.

Table 1. Characteristics of Participants

Aspects	***Categories***	***Total***	***Percentage***
Age	25-40 years old	13	50%
	41-60 years old	13	50%
Sex	Male (father)	6	23%
	Female (mother)	20	77%
Latest education	Elementary School	1	3,8%
	Junior High School	6	23%
	High School	13	50%
	Undergraduate	6	23%

These data were collected from April to June 2015. For participants who were client's parents, the data was collected when they came to consultation session in April-May 2015. Participants who were student's parents were being interviewed during May-June 2015.

5.2. Measurement

The data was collected using interview with two different approaches. Participants who came to the facility were interviewed individually, while those in school were interviewed together in a focus group interview, a data collecting method using group interview with participants around 4-6 people (Cresswell, 2015).

Questions were constructed to collect information about ET use by parents for stimulating children's development. The main focus of those questions were (1) Do parents usually play with their children?, (2) Do parents use ET when they play with their children?, (3) Do parents facilitate ET for their children?, (4) What kind of ET available in home?

6. Result

The interview result was being analyzed according to this research's objective, which was to understand ET use by parents of children with intellectual disabilities. From this analysis, similar data was grouped into several categories as shown in Table 2.

Table 2. ET Use by All Participants

Categories	*Total*	*Percentage*
Aware of ET and use it consistently	10	38,5%
Sometimes use ET	8	30,7%
Doesn't aware of ET but use it	4	15,4%
Not using ET	4	15,4%

First category was parents who was aware of ET and consistently use it to stimulate their intellectually disabled children. Ten parents (38.5%) in this category consisted of seven mothers and three fathers (see Table 3). They understand the purpose of ET (toys type, functions and how to use it) and consciously seek for and bought ET despite the price. All parents in the first category spent great amount of time teaching their children using ET and other tools. Two participants (one mother and one father) said they were willingly resigned from their job so they could focus on their children development once they know their children were having intellectual disability. This category of parents also reported that they could use everyday items around the house to stimulate their children development because they were already aware of the ET's characteristics.

Table 3. Characteristics of First Category Participants

Aspects	*Types*	*Total*
Sex	Female (mother)	7
	Male (father)	3
Latest education	High school	4
	Undergraduate school	6
Age	25 – 40 years old	6
	41 – 60 years old	4

The second category was parents who sometimes using ET to stimulate their children's development. Eight parents were included in this category (30.7%), consisted of seven mothers and one father. They sometimes played with their children and taught them many things, but it was not regularly applied. More often than not they let their children played by themselves or asked others people in the house (grandparents, maids, babysitters) to play with their children.

Table 4. Characteristics of Second Category Participants

Aspects	*Types*	*Total*
Sex	Female (mother)	7
	Male (father)	1
Latest education	Junior high school	2
	High school	6
Age	25 – 40 years old	5
	41 – 60 years old	3

Some reasons on why these parents did not use ET regularly were that the parents were not patient enough so the children chose to play with caretaker's, parents were working so they did not have much time to spend with their children, or that the children were easily bored with their toys. Some parents reported that their children were not using

those toy blocks correctly and using it instead to play merchants or cooking ingredients, which in turns, made their parents decided to store it away so it would not get damaged. This type of parents did not understand much about ET because they only heard about it through mass media (television, newspapers, magazines or their children's school teacher).

The third category reported that they did not aware of the existence of ET but actually already used it to teach some skills to their children without even knowing what it was. There were four participants included in this category (15.4%), one father and three mothers (see Table 5). ET used by this category of parents were usually toys that related to role playing, such as dolls and its accessories, plastic cooking utensils, cars and various household appliances. Parents of this category were not directly playing with their children but proceeded to taught them something using those toys. There were parents who said that, "My kid loves to imitate me when I'm cooking or baking cookies and she does not like to play that much..." or "My kid likes to play merchants, play with sand or water and dislike blocks..." Others said, "My child likes to play with balls... or cars, not blocks..."

Table 5. Characteristic of Third Category Participants

Aspects	*Types*	*Total*
Sex	Female (mother) Male (father)	3 1
Latest education	Elementary School Junior high school High school	1 1 2
Age	25 – 40 years old 41 – 60 years old	2 2

Fourth category included four parents (15.4%), consisted of three mothers and one father (see Table 6). Parents in this category reported that they did not know about ET and did not use it. They did not specifically try to stimulate their children's development although they were aware that their children were having developmental delays compared to other children their age. They bought their children whatever toys their children wanted and let them played whatever they wanted without supervision.

Table 6. Characteristics of Fourth Category Participants

Aspects	*Types*	*Total*
Sex	Female (mother) Male (father)	3 1
Latest education	Junior high school High school	3 1
Age	25 – 40 years old 41 – 60 years old	1 3

One of these parents said that they let their children to play games in their tablet everyday without much variation, because their children were calmed whenever they play games in tablet and did not bother anyone. Said parents reported that, "My child tends to ask so much questions when he played with blocks and bothered me... or he will get bored easily... but he was calm and easily absorbed into computer or tablet games so he wouldn't bother me when I tried to finish other chores," while the others said, "I do not play with them because I feel embarrassed... I'm too old to play with children..." or "I do not play with my children... because if I played with them, many household chores would be unfinished...".

7. Discussion

For children with intellectual disability, early stimulation from their parents to enhanced various comprehensions and skills are important because parents are children's primary teacher. In early age, children tend to love playing games and through this activities parents can specifically stimulated their children's development. This is needed because children with intellectual disability learn everything in a relatively slower pace than their peers.

ET are one of the choices parents could use as a tool to stimulate the development of children with intellectual disability. However, this study revealed that not all parents with intellectually disabled children who participate in this study have used ET to stimulate their children's development. Among 26 participants, only 10 participants (38.5%) who consistently using ET (first category). Another eight participants (30.7%) only sometimes using ET (second category), meanwhile the rest using ET without aware of its use (third category) or never use it at all (fourth category). From this study, it is clear that only several few parents with intellectually disabled children are using ET, even though ET are constructed to stimulate various children's development (BKKBN, 2013; Tedjasaputra, 2005). Several factors might be the reasons for this condition. First, parents of intellectually disabled children are less aware of how to use ET correctly. They do not know what kind of toys is educative or what kind of everyday objects they can use to stimulate their children's development. Although they—consciously or not—buy educational toys for their children, they cannot gain the maximum advantages from the toys. This lack of comprehension correlates with parents' general knowledge. Parents of children with intellectual disabilities are required to have more knowledge and experience in nurturing children with special needs so they can understand what their children needs (Mangunsong, 1998), including stimulating them through playing activities. Knowledge, of course, is always in correlation with educational level. Higher education level is followed by higher knowledge and ability to seek information. In this study only 6 parents (23%) have undergraduate level as the latest education, while other 20 (77%) are high school or lower. Second, the parent's acceptance towards their intellectually disabled children maybe low. Kerig and Wenar (2006) and also Greenspan et al (2006) stated that parents with intellectually disabled children must likely to experienced constant high level of stress. Pressures from their environment could causing their lack of acceptance towards their children's conditions, which usually resulted in ignorant attitude and leaving their responsibility to other people. This kind of parents will not spare their time specifically

to play with their children or giving what best for them, including finding and facilitating their children with ET to stimulate their development.

8. Conclusion

ET is highly compatible for educating children with intellectual disabilities and suitable for parents to stimulate their children since early childhood. However, not all of the parent of intellectually disabled children knows and uses this tool. Result of this study showed that there were four categories of parents, and they are (1) parents who aware of ET and consistent use it as a tool to stimulating their children, (2) parents who use ET only several times, (3) parents who use ET without understand what it means and (4) parents who never use ET at all.

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